

GW-028

**ANNUAL GW
MONITORING
REPORT (4 of 6)**

2014

ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Billing Information:
Attn: Accounts Payable
630 Plaza Drive, Suite 600
Highlands Ranch, CO 80129

Report to:
Project Manager

Email To: pam.krueger@arcadis-us.com; maisha.turner@arcadis-

Project Description: **Navajo Refining Company - Artesia, NM**

City/State Collected:

Phone: 713-953-4800
Fax:

Client Project #
TX000836.0008.00004

Lab Project #
ARCADHTX-NAVAJO

Collected by (print):
Scott Ude + HM Team

Site/Facility ID #
REST

P.O. #

Collected by (signature):
Scott Ude
Immediately Packed on Ice N Y

Rush? (Lab MUST Be Notified)
 Same Day200%
 Next Day100%
 Two Day50%
 Three Day25%

Date Results Needed
 Email? No Yes
 FAX? No Yes

Analysis / Container / Preservative	
300 CL, FL, SO4 12.5mlHDPE-NoPres	718
CN 250mlHDPEAmb-NaOH	
DROORQIVI 40mlAmb-HCl-BT	
GRO 40mlAmb HCl	
METAAS 500mlHDPE-HNO3 Hg 7470, 6020 Ni, V, Zr	L2
Metals 500mlHDPE-HNO3	L2
NO2NO3 250mlHDPE-H2SO4	L2
TDS 250mlHDPE-NoPres	
V8260 40mlAmb-HCl	

Chain of Custody Page 2 of 2



L.A.B S.C.I.E.N.C.E.S

YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



L # **L733743**

Table #

Acctnum: **ARCADHTX**
 Template: **T98009**
 Prelogin: **P487508**
 TSR: 633 - Pam Langford
 PB: **10-30128**

Shipped Via: **FedEX Ground**

Rem./Contaminant Sample # (lab only)

Sample ID	Comp	Grab	Matrix *	Depth	Date	Time	No. of Cntrs	300 CL, FL, SO4 12.5mlHDPE-NoPres	CN 250mlHDPEAmb-NaOH	DROORQIVI 40mlAmb-HCl-BT	GRO 40mlAmb HCl	METAAS 500mlHDPE-HNO3 Hg 7470, 6020 Ni, V, Zr	Metals 500mlHDPE-HNO3	NO2NO3 250mlHDPE-H2SO4	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl	Rem./Contaminant	Sample # (lab only)
MW-105			GW		11/13/14	905	108	X		X	X		X	X	X	X		145
MW-129			GW		11/12/14	925	108	X		X	X		X	X	X	X		146
MW-133			GW		11/12/14	1030	108	X		X	X		X	X	X	X		147
MW-67			GW		11/13/14	1430	108	X	X	X	X	X	X	X	X	X		148
MW-91			GW		11/13/14	1320	108	X		X	X		X	X	X	X		149
MW-94			GW		11/13/14	1610	108	X		X	X		X	X	X	X		150
			GW				3			X			X					
			GW				3			X			X					
			GW				3			X			X					
			GW				3			X			X					

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks: **ARCADIS NOTE: FMR LNAPL WELLS ON THIS PAGE OF COC**

pH _____ Temp _____
 Flow _____ Other _____

Relinquished by: (Signature) <i>Scott Ude</i>	Date: 11/14/14	Time: 800	Received by: (Signature) <i>[Signature]</i>	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____	Condition: _____ (lab use only)
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received by: (Signature) <i>[Signature]</i>	Temp: 3.1 °C Bottles Received: 1287	COC Seal Intact: <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: 11/15/14 Time: 0900	pH Checked: _____ NCF: _____ Page 569 of 574

ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Billing Information:
 Attn: Accounts Payable
 630 Plaza Drive, Suite 600
 Highlands Ranch, CO 80129

Report to:
Project Manager

Email To: pam.krueger@arcadis-us.com; maisha.turner@arcadis-

Project Description: **Navajo Refining Company - Artesia, NM**

City/State Collected:
 Lab Project # **ARCADHTX-NAVAJO**

Phone: 713-953-4800
 Fax:

Client Project # **TX000836.0008.00004**

City/State Collected:
 Lab Project # **ARCADHTX-NAVAJO**

Collected by (print):
Sue Ude + HMI Team

Site/Facility ID # **Rest (AA/QC)**
EVAPORATION PONDS

P.O. #

Collected by (signature):
Sue Ude
 Immediately
 Packed on Ice: N ___ Y

Rush? (Lab MUST Be Notified)
 ___ Same Day200%
 ___ Next Day100%
 ___ Two Day50%
 ___ Three Day25%

Date Results Needed
 Email? ___ No Yes
 FAX? ___ No ___ Yes

Analysis / Container / Preservative	
300 CL, FL, SO4 125mlHDPE-NoPres	6020 NI, V, 7470 HG 500mlHDPE-HNO3 L2
CN 250mlHDPEAmb-NaOH 712	DROOROLVI 40mlAmb-HCl-BT
GRO 40mlAmb HCl	METALS, Nava 500mlHDPE-HNO3 L2
	NO2NO3 250mlHDPE-H2SO4 L2
	TDS 250mlHDPE-NoPres
	V8260 40mlAmb-HCl

Chain of Custody Page 8 of 9

YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859

L# **L733743**

Table #

Acctnum: **ARCADHTX**
 Template: **T98001**
 Prelogin: **P487502**
 TSR: 633 - Pam Langford
 PB: **10-28-14**

Shipped Via: **FedEX Ground**

Sample ID	Comp (Grab)	Matrix *	Depth	Date	Time	No. of Cntrs	300 CL, FL, SO4 125mlHDPE-NoPres	6020 NI, V, 7470 HG 500mlHDPE-HNO3 L2	CN 250mlHDPEAmb-NaOH 712	DROOROLVI 40mlAmb-HCl-BT	GRO 40mlAmb HCl	METALS, Nava 500mlHDPE-HNO3 L2	NO2NO3 250mlHDPE-H2SO4 L2	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl	Rem./Contaminant	Sample # (lab only)
DUP-REST-01		GW		11/13/14	1200	10/8	X			X	X	X	X	X	X		151
DUP-REST-02		GW		11/13/14	1300	10/8	X			X	X	X	X	X	X		152
DUP-REST-03		GW		11/13/14	800	10/8	X			X	X	X	X	X	X		153
DUP-REST-04		GW		11/13/14	800	12/8	X	X	X	X	X	X	X	X	X		154
DUP-REST-05		GW		11/13/14	1205	12/8	X	X	X	X	X	X	X	X	X		156
EB-REST-01		GW		11/13/14	1240	10/8	X			X	X	X	X	X	X		156
EB-REST-02		GW		11/13/14	1430	10/8	X			X	X	X	X	X	X		157
EB-REST-03		GW		11/12/14	1150	10/8	X			X	X	X	X	X	X		158
EB-REST-04		GW		11/12/14	900	12/8	X	X	X	X	X	X	X	X	X		168
EB-REST-05		GW		11/13/14	1200	12/8	X	X	X	X	X	X	X	X	X		160

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH _____ Temp _____
 Flow _____ Other _____

Relinquished by: (Signature) Sue Ude	Date: 11/14/14	Time: 800	Received by: (Signature)	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/>	Hold #
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.1 °C Bottles Received: 1287	Condition: (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) Joyce	Date: 11/15/14 Time: 0900	COC Seal Intact: Y N NA pH Checked: _____ NCF: _____ Page 570 of 574

ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Billing Information:
 Attn: Accounts Payable
 630 Plaza Drive, Suite 600
 Highlands Ranch, CO 80129

Report to:
Project Manager

Email To: pam.krueger@arcadis-us.com; maisha.turner@arcadis-

Project Description: **Navajo Refining Company - Artesia, NM**

City/State Collected:

Phone: 713-953-4800
 Fax:

Client Project #
TX000836.0008.00004

Lab Project #
ARCADHTX-NAVAJO

Collected by (print):
Scott Ude + HMI Team

Site/Facility ID # **Rest (AA/a.c.)**
EVAPORATION PONDS

P.O. #

Collected by (signature):
Scott Ude
 Immediately Packed on Ice N ___ Y

Rush? (Lab MUST Be Notified)
 ___ Same Day200%
 ___ Next Day100%
 ___ Two Day50%
 ___ Three Day25%

Date Results Needed
 Email? ___ No Yes
 FAX? ___ No ___ Yes

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	300 CL, FL, SO4 125mlHDPE-NoPres	6020 NI, V, 7470 HG 500mlHDPE-HNO3	CN 250mlHDPEAmb-NaOH	DROOROLVI 40mlAmb-HCl-BT	GRO 40mlAmb-HCl	METALS, Nava 500mlHDPE-HNO3	NO2NO3 250mlHDPE-H2SO4	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl
Trip Blank - Rest - 01	↓	GW		11/12/14	—	1	X						X		
Trip Blank - Rest - 02	↓	GW		11/13/14	—	1	X						X		
		-GW				3	X					X	X		
		-WW				3	X					X	X		
		-GW				1		X							
		-GW				1		X							
		-GW				1		X							

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH _____ Temp _____
 Flow _____ Other _____

Relinquished by: (Signature)
Scott Ude
 Relinquished by: (Signature)
 Relinquished by: (Signature)

Date: 11/14/14
 Time: 800

Received by: (Signature)
 Received by: (Signature)
 Received for lab by: (Signature)
Jerry

Samples returned via: UPS
 FedEx Courier _____
 Temp: 3.1 °C Bottles Received: 1287
 Date: 11/15/14 Time: 0900

Hold # _____
 Condition: (lab use only)
 COC Seal Intact: ___ Y ___ N ___ NA
 pH Checked: _____ NCF: _____
 Page 571 of 574

Analysis / Container / Preservative

Chain of Custody Page 2 of 2

YOUR LAB OF CHOICE
 12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859

L# **L733743**
 Table # _____
 Acctnum: **ARCADHTX**
 Template: **T98001**
 Prelogin: **P487502**
 TSR: 633 - Pam Langford
 PB: 1028146
 Shipped Via: **FedEX Ground**

Rem./Contaminant	Sample # (lab only)
	161
	162

6733743

FedEx
TRK# 0221 6194 4949 7700
SATURDAY 12:00P
PRIORITY OVERNIGHT 2
37122

FedEx
TRK# 0221 6194 4949 7710
SATURDAY 12:00P
PRIORITY OVERNIGHT

FedEx
TRK# 0221 6194 4948 9013
SATURDAY 12:00P
PRIORITY OVERNIGHT
37122

FedEx
TRK# 0221 6194 4949 0955
SATURDAY 12:00P
PRIORITY OVERNIGHT
37122

TRK# 6194 4949 0966
FedEx
TRK# 0221 6194 4949 0966
SATURDAY 12:00P
PRIORITY OVERNIGHT
37122

FedEx
TRK# 0221 6194 4949 0977
SATURDAY 12:00P
PRIORITY OVERNIGHT 2
37122

FedEx
TRK# 0221 6194 4949 7673
SATURDAY 12:00P
PRIORITY OVERNIGHT
37122

FedEx
TRK# 0221 6194 4949 7662
SATURDAY 12:00P
PRIORITY OVERNIGHT

FedEx
TRK# 0221 6194 4949 7684
SATURDAY 12:00P
PRIORITY OVERNIGHT

FedEx
TRK# 0221 6194 4949 0988
SATURDAY 12:00P
PRIORITY OVERNIGHT

FedEx
TRK# 0221 6194 4949 7721
SATURDAY 12:00P
PRIORITY OVERNIGHT

FedEx
TRK# 0221 6194 4948 8613
SATURDAY 12:00P
PRIORITY OVERNIGHT

FedEx
TRK# 0221 6194 4948 9002
SATURDAY 12:00P
PRIORITY OVERNIGHT 2
37122

TRK# 0221 6194 4949 0944
RETURNING MON-SAT
PRIORITY OVERNIGHT

FedEx
TRK# 0221 6194 4949 7695
SATURDAY 12:00P
PRIORITY OVERNIGHT
37122

2733743

FedEx
TRK#
0221 6194 4949 7490

FRI - 14 NOV AA
STANDARD OVERNIGHT

XH BNAA

37122
TN-US
BNA

FedEx
TRK#
0221 6194 4949 7489

FRI - 14 NOV AA
STANDARD OVERNIGHT

37122
TN-US

FedEx
TRK#
0221 6194 4949 7456

FRI - 14 NOV AA
STANDARD OVERNIGHT

37122

edEx
TRK#
21 6194 4949 7504

FRI - 14 NOV AA
STANDARD OVERNIGHT

FedEx
TRK#
0221 6194 4948 8999

FRI - 14 NOV AA
STANDARD OVERNIGHT

37122

FedEx
TRK#
0221 6194 4948 8988

FRI - 14 NOV AA
STANDARD OVERNIGHT

37122

FedEx
TRK#
0221 6194 4949 0852

FRI - 14 NOV AA
STANDARD OVERNIGHT

37122
TN-US

FedEx
TRK#
0221 6194 4949 7467

FRI - 14 NOV A
STANDARD OVERNIGHT

FedEx
TRK#
0221 6194 4949 7445

FRI - 14 NOV AA
STANDARD OVERNIGHT

FedEx
TRK#
0221 6194 4949 7515


FRI - 14 NOV AA
STANDARD OVERNIGHT

VII BNAA

37122
TN-US

L733743

FedEx
 TRK# 0221 6194 4951 4095
 FRI - 14 NOV AA
 STANDARD OVERNIGHT
XH BNA
 37122
 TN-US
 BNA



FID 958388 13NOV14 ROWA 522C1/616C/65DD


FedEx
 TRK# 0221 6194 4951 4062
 FRI - 14 NOV AA
 STANDARD OVERNIGHT
XH BNA
 37122
 TN-US
 BNA



FID 958388 13NOV14 ROWA 522C1/616C/65DD

FedEx
 TRK# 0221 6194 4951 4110
 FRI - 14 NOV AA
 STANDARD OVERNIGHT

FedEx
 TRK# 0221 6194 4951 1534
 FRI - 14 NOV AA
 STANDARD OVERNIGHT
XH BNA
 37122
 TN-US
 BNA



FID 958388 13NOV14 ROWA 522C1/616C/65DD

FedEx
 TRK# 0221 6194 4951 4100
 FRI - 14 NOV AA
 STANDARD OVERNIGHT
 37122
 TN-US

FedEx
 TRK# 0221 6194 4951 4121
 FRI - 14 NOV AA
 STANDARD OVERNIGHT

FedEx
 TRK# 0221 6194 4951 4084
 FRI - 14 NOV AA
 STANDARD OVERNIGHT

FedEx
 TRK# 0221 6194 4951 4073
 FRI - 14 NOV AA
 STANDARD OVERNIGHT

Quality Control Summary SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

Sample Receiving and Handling

All sample aliquots were received at the correct temperature, in the proper containers, and with the appropriate preservatives. Method specified holding times were not met for analyses on all samples.

Anions by Method 9056MOD

Laboratory Control Sample

Samples L733743-01 and 02 were analyzed in analytical batch WG755279. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -66, -67, -69, -70, -71, -72, and -73 were analyzed in analytical batch WG755284. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-56, -74, -75, -100, -101, and -102 were analyzed in analytical batch WG755463. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, and -122 were analyzed in analytical batch WG755572. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141, and -142 were analyzed in analytical batch WG755573. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-25, -26, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158, -159, and -160 were analyzed in analytical batch WG755977. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-27, -28, -29, -30, -31, -32, -34, -35, -36, -37, -38, -39, -40, -43, -44, -45, -46, -47, -48, and -52 were analyzed in analytical batch WG755979. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -77, -78, -79, -80, -81, -82, -83, -84, -85, and -86 were analyzed in analytical batch WG755980. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Quality Control Summary

SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

Samples L733743-87, -88, -90, -91, -92, -93, -94, -95, -96, -97, -98, and -99 were analyzed in analytical batch WG755981. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-28, -31, -40, -45, -108, -117, -119, -129, -138, and -150 were analyzed in analytical batch WG756286. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-66, -69, -70, -71, -72, and -73 were analyzed in analytical batch WG756784. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-53, -54, -55, -57, -58, -59, and -155 were analyzed in analytical batch WG756800. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-77, -78, -79, -80, -81, -82, -83, -84, -85, and -86 were analyzed in analytical batch WG757012. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample L733743-85 was analyzed in analytical batch WG757344. The laboratory control sample associated with this sample was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample L733743-67 was analyzed in analytical batch WG758368. The laboratory control sample associated with this sample was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample Duplicate Analysis

For analytical batch WG755279 sample duplicate analysis was performed on sample L732952-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755279 sample duplicate analysis was performed on sample L733283-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755284 sample duplicate analysis was performed on sample L733743-05. The relative percent difference exceeded the method limits for Chloride and Sulfate.

For analytical batch WG755284 sample duplicate analysis was performed on sample L733743-14. The relative percent difference exceeded the method limits for Chloride.

For analytical batch WG755463 sample duplicate analysis was performed on sample L732989-01. The relative percent differences were within the method limits for target analytes reported from this batch.

Quality Control Summary SDG: L733743

For: ARCADIS US - TX
Project: Navajo Refining Company - Artesia,
January 27, 2015

For analytical batch WG755463 sample duplicate analysis was performed on sample L733018-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755463 sample duplicate analysis was performed on sample L733146-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755463 sample duplicate analysis was performed on sample L733046-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755572 sample duplicate analysis was performed on sample L733743-122. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755572 sample duplicate analysis was performed on sample L733743-109. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755573 sample duplicate analysis was performed on sample L733743-133. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755573 sample duplicate analysis was performed on sample L733743-124. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755977 sample duplicate analysis was performed on sample L733743-158. The relative percent difference exceeded the method limits for Chloride.

For analytical batch WG755977 sample duplicate analysis was performed on sample L733743-160. The relative percent difference exceeded the method limits for Chloride and Sulfate.

For analytical batch WG755979 sample duplicate analysis was performed on sample L733743-39. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755979 sample duplicate analysis was performed on sample L733743-29. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755980 sample duplicate analysis was performed on sample L733743-60. The relative percent difference exceeded the method limits for Chloride and Sulfate.

For analytical batch WG755980 sample duplicate analysis was performed on sample L733743-63. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755981 sample duplicate analysis was performed on sample L733881-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755981 sample duplicate analysis was performed on sample L733542-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG756286 sample duplicate analysis was performed on sample L733884-01. The relative percent differences were within the method limits for target analytes reported from this batch.

Quality Control Summary SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

For analytical batch WG756784 sample duplicate analysis was performed on sample L735467-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG756784 sample duplicate analysis was performed on sample L735897-02. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG756800 sample duplicate analysis was performed on sample L734837-03. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG757012 sample duplicate analysis was performed on sample L733743-84. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG757012 sample duplicate analysis was performed on sample L734287-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG757344 sample duplicate analysis was performed on sample L735431-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG757344 sample duplicate analysis was performed on sample L735078-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG758368 sample duplicate analysis was performed on sample L736163-01. The relative percent differences were within the method limits for target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG755279 matrix spike/matrix spike duplicate analysis was performed on sample L733584-02. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755284 matrix spike/matrix spike duplicate analysis was performed on sample L733743-11. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755463 matrix spike/matrix spike duplicate analysis was performed on sample L733124-02. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755572 matrix spike/matrix spike duplicate analysis was performed on sample L733743-113. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755573 matrix spike/matrix spike duplicate analysis was performed on sample L733743-123. The matrix spike recoveries were below laboratory control limits for Fluoride. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Quality Control Summary

SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

For analytical batch WG755977 matrix spike/matrix spike duplicate analysis was performed on sample L733743-159. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755979 matrix spike/matrix spike duplicate analysis was performed on sample L733743-30. The matrix spike recoveries were below laboratory control limits for Fluoride. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755980 matrix spike/matrix spike duplicate analysis was performed on sample L733743-61. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755981 matrix spike/matrix spike duplicate analysis was performed on sample L733743-88. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG756286 matrix spike/matrix spike duplicate analysis was performed on sample L733743-129. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG756784 matrix spike/matrix spike duplicate analysis was performed on sample L735467-03. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG756800 matrix spike/matrix spike duplicate analysis was performed on sample L734613-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG757012 matrix spike/matrix spike duplicate analysis was performed on sample L734867-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG757344 matrix spike/matrix spike duplicate analysis was performed on sample L735338-10. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Precision for batch WG758368 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Total Dissolved Solids by Method 2540 C-2011

Laboratory Control Sample

Samples L733743-01, -02, -03, -04, -05, -06, -07, -08, and -09 were analyzed in analytical batch WG754846. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes

Quality Control Summary SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-10, -11, -12, -13, -14, and -15 were analyzed in analytical batch WG754847. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-104, -107, -111, -114, -117, -119, -120, -121, -125, -126, -127, -128, -129, -131, -132, -139, -141, -142, -143, and -146 were analyzed in analytical batch WG755020. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-25, -26, -29, -34, -38, -40, -43, -44, -45, -48, -52, -53, -57, -59, -60, -63, -66, -147, -158, and -159 were analyzed in analytical batch WG755137. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-69, -70, -71, -72, -73, -74, -77, -80, -81, -82, -83, -84, -85, -88, -91, -92, -98, -100, and -101 were analyzed in analytical batch WG755139. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-102, -103, -105, -106, -108, -109, -110, -112, -113, and -115 were analyzed in analytical batch WG755145. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-116, -118, -122, -123, -124, -130, -133, -134, -135, and -136 were analyzed in analytical batch WG755146. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-27, -28, -30, -31, -137, -138, -140, -144, -145, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, and -160 were analyzed in analytical batch WG755343. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-32, -35, -36, -37, -39, -46, -47, -54, -55, -56, -58, -61, -62, -67, -78, -79, -86, -87, -90, and -93 were analyzed in analytical batch WG755344. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-94, -95, -96, -97, and -99 were analyzed in analytical batch WG755345. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Quality Control Summary SDG: L733743

For: ARCADIS US - TX
Project: Navajo Refining Company - Artesia,
January 27, 2015

Sample L733743-75 was analyzed in analytical batch WG756114. The laboratory control sample associated with this sample was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample Duplicate Analysis

For analytical batch WG754846 sample duplicate analysis was performed on sample L733699-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG754847 sample duplicate analysis was performed on sample L733743-10. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG754847 sample duplicate analysis was performed on sample L733851-20. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755020 sample duplicate analysis was performed on sample L733743-104. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755020 sample duplicate analysis was performed on sample L733743-146. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755137 sample duplicate analysis was performed on sample L733743-147. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755137 sample duplicate analysis was performed on sample L733743-66. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755139 sample duplicate analysis was performed on sample L733743-100. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755139 sample duplicate analysis was performed on sample L733743-98. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755145 sample duplicate analysis was performed on sample L733743-102. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755146 sample duplicate analysis was performed on sample L733743-116. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755343 sample duplicate analysis was performed on sample L733743-137. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755343 sample duplicate analysis was performed on sample L733743-31. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755344 sample duplicate analysis was performed on sample L733743-32. The relative percent differences were within the method limits for target analytes reported from this batch.

Quality Control Summary SDG: L733743

For: ARCADIS US - TX
Project: Navajo Refining Company - Artesia,
January 27, 2015

For analytical batch WG755344 sample duplicate analysis was performed on sample L733743-93. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755345 sample duplicate analysis was performed on sample L733851-06. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755345 sample duplicate analysis was performed on sample L733902-04. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG756114 sample duplicate analysis was performed on sample L733743-75. The relative percent differences were within the method limits for target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

Precision for batch WG754846 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG754847 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755020 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755137 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755139 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755145 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755146 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755343 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755344 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755345 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG756114 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Nitrate-Nitrite by Method 353.2

Laboratory Control Sample

Samples L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, and -29 were analyzed in analytical batch WG755162. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Quality Control Summary SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

Samples L733743-30, -31, -32, -34, -35, -36, -37, -38, -39, -40, -43, -44, -45, -46, -47, -48, -52, -53, -54, and -55 were analyzed in analytical batch WG755168. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, -72, -73, -74, -75, -77, -78, and -79 were analyzed in analytical batch WG755260. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, and -100 were analyzed in analytical batch WG755261. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -112, -113, -114, -115, -116, -117, -118, -119, and -120 were analyzed in analytical batch WG755577. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, and -140 were analyzed in analytical batch WG755578. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158, -159, and -160 were analyzed in analytical batch WG755581. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample L733743-111 was analyzed in analytical batch WG755868. The laboratory control sample associated with this sample was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample Duplicate Analysis

For analytical batch WG755162 sample duplicate analysis was performed on sample L733743-15. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755162 sample duplicate analysis was performed on sample L733743-10. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755168 sample duplicate analysis was performed on sample L733743-40. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755168 sample duplicate analysis was performed on sample L733743-43. The relative percent differences were within the method limits for target analytes reported from this batch.

Quality Control Summary SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

For analytical batch WG755260 sample duplicate analysis was performed on sample L733743-78. The relative percent difference exceeded the method limits for Nitrate-Nitrite.

For analytical batch WG755260 sample duplicate analysis was performed on sample L733743-67. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755261 sample duplicate analysis was performed on sample L733743-88. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755261 sample duplicate analysis was performed on sample L733743-90. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755577 sample duplicate analysis was performed on sample L733743-110. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755577 sample duplicate analysis was performed on sample L733743-119. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755578 sample duplicate analysis was performed on sample L733743-130. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755578 sample duplicate analysis was performed on sample L733743-139. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755581 sample duplicate analysis was performed on sample L733743-150. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755581 sample duplicate analysis was performed on sample L733743-159. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755868 sample duplicate analysis was performed on sample L733884-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755868 sample duplicate analysis was performed on sample L733889-01. The relative percent differences were within the method limits for target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG755162 matrix spike/matrix spike duplicate analysis was performed on sample L733743-29. The matrix spike recoveries were below laboratory control limits for Nitrate-Nitrite. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755168 matrix spike/matrix spike duplicate analysis was performed on sample L733743-44. The matrix spike recoveries were below laboratory control limits for Nitrate-Nitrite. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755260 matrix spike/matrix spike duplicate analysis was performed on sample L733743-79. The matrix spike recoveries were below laboratory control limits for Nitrate-Nitrite. The relative percent difference was within

Quality Control Summary SDG: L733743

For: ARCADIS US - TX
Project: Navajo Refining Company - Artesia,
January 27, 2015

laboratory limits for all target analytes reported from this batch.

For analytical batch WG755261 matrix spike/matrix spike duplicate analysis was performed on sample L733743-99. The matrix spike recoveries were below laboratory control limits for Nitrate-Nitrite. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755577 matrix spike/matrix spike duplicate analysis was performed on sample L733743-120. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755578 matrix spike/matrix spike duplicate analysis was performed on sample L733743-140. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755581 matrix spike/matrix spike duplicate analysis was performed on sample L733743-160. The matrix spike recoveries were below laboratory control limits for Nitrate-Nitrite. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755868 matrix spike/matrix spike duplicate analysis was performed on sample L733605-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Cyanide by Method 9012B

Laboratory Control Sample

Samples L733743-01, -02, and -03 were analyzed in analytical batch WG755288. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -100, -102, -104, -107, -144, -148, and -154 were analyzed in analytical batch WG755292. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-31, -55, -69, -77, -79, -91, -92, -93, -94, -95, -96, -98, -155, -159, and -160 were analyzed in analytical batch WG755528. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample Duplicate Analysis

For analytical batch WG755288 sample duplicate analysis was performed on sample L733811-02. The relative percent differences were within the method limits for target analytes reported from this batch.

Quality Control Summary SDG: L733743

For: ARCADIS US - TX
Project: Navajo Refining Company - Artesia,
January 27, 2015

For analytical batch WG755288 sample duplicate analysis was performed on sample L733743-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755292 sample duplicate analysis was performed on sample L733743-05. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755292 sample duplicate analysis was performed on sample L733743-10. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755528 sample duplicate analysis was performed on sample L733743-31. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755528 sample duplicate analysis was performed on sample L733743-92. The relative percent differences were within the method limits for target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG755288 matrix spike/matrix spike duplicate analysis was performed on sample L733618-05. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755292 matrix spike/matrix spike duplicate analysis was performed on sample L733743-04. The matrix spike recoveries were below laboratory control limits for Cyanide. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755528 matrix spike/matrix spike duplicate analysis was performed on sample L733620-07. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Mercury by Method 7470A

Laboratory Control Sample

Samples L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -144, -148, -154, -155, and -159 were analyzed in analytical batch WG754885. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch.

Samples L733743-31, -55, -69, -77, -79, -91, -92, -93, -94, -95, -96, -98, -100, -102, -104, -107, and -160 were analyzed in analytical batch WG754886. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG754885 matrix spike/matrix spike duplicate analysis was performed on sample L733743-15. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Quality Control Summary SDG: L733743

For: ARCADIS US - TX
Project: Navajo Refining Company - Artesia,
January 27, 2015

For analytical batch WG754886 matrix spike/matrix spike duplicate analysis was performed on sample L733743-94. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Trace Metals by Method 6020

Laboratory Control Sample

Samples L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, and -29 were analyzed in analytical batch WG755200. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, and -49 were analyzed in analytical batch WG755201. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-100, -101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118, and -119 were analyzed in analytical batch WG755204. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, and -139 were analyzed in analytical batch WG755205. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-140, -141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158, and -159 were analyzed in analytical batch WG755207. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-50, -51, -52, -53, -54, -55, -56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, and -72 were analyzed in analytical batch WG755208. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-73, -74, -75, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, and -94 were analyzed in analytical batch WG755209. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-95, -96, -97, -98, -99, and -160 were analyzed in analytical batch WG755211. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch.

Quality Control Summary SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, and -15 were analyzed in analytical batch WG755434. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-33, -35, -36, -37, -39, -43, -44, and -45 were analyzed in analytical batch WG756145. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG755200 matrix spike/matrix spike duplicate analysis was performed on sample L733743-02. The matrix spike recoveries were above laboratory control limits for Calcium. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch. Calcium did not meet the method limit criteria for the serial dilution.

For analytical batch WG755201 matrix spike/matrix spike duplicate analysis was performed on sample L733743-30. The matrix spike recoveries were above laboratory control limits for Manganese. The matrix spike recoveries were below laboratory control limits for Calcium, Manganese, and Sodium. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch. Nickel did not meet the method limit criteria for the serial dilution.

For analytical batch WG755204 matrix spike/matrix spike duplicate analysis was performed on sample L733743-100. The matrix spike recoveries were above laboratory control limits for Calcium and Sodium. The matrix spike recoveries were below laboratory control limits for Selenium, Sodium, and Zinc. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch. Selenium did not meet the method limit criteria for the serial dilution.

For analytical batch WG755205 matrix spike/matrix spike duplicate analysis was performed on sample L733743-120. The matrix spike recoveries were above laboratory control limits for Calcium and Sodium. The matrix spike recoveries were below laboratory control limits for Calcium. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755207 matrix spike/matrix spike duplicate analysis was performed on sample L733743-147. The matrix spike recoveries were below laboratory control limits for Calcium and Sodium. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755208 matrix spike/matrix spike duplicate analysis was performed on sample L733743-50. The matrix spike recoveries were above laboratory control limits for Calcium, Iron, Manganese, Potassium, and Sodium. The matrix spike recoveries were below laboratory control limits for Calcium. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch. Manganese, Potassium, and Sodium did not meet the method limit criteria for the serial dilution.

Quality Control Summary

SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

For analytical batch WG755209 matrix spike/matrix spike duplicate analysis was performed on sample L733743-73. The matrix spike recoveries were below laboratory control limits for Calcium and Sodium. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch. Calcium and Sodium did not meet the method limit criteria for the serial dilution.

For analytical batch WG755211 matrix spike/matrix spike duplicate analysis was performed on sample L733743-160. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755434 matrix spike/matrix spike duplicate analysis was performed on sample L733743-01. The matrix spike recoveries were above laboratory control limits for Calcium,Dissolved. The matrix spike recoveries were below laboratory control limits for Boron,Dissolved, Calcium,Dissolved, Iron,Dissolved, Manganese,Dissolved, Sodium,Dissolved, and Zinc,Dissolved. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch. Manganese,Dissolved did not meet the method limit criteria for the serial dilution.

For analytical batch WG756145 matrix spike/matrix spike duplicate analysis was performed on sample L733743-33. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Blank Analysis

For batch WG755200, the concentration of Nickel was above the method reporting limit.

For batch WG755201, the concentrations of Chromium and Nickel were above the method reporting limit.

For batch WG755211, the concentration of Chromium was above half of the method reporting limit.

For batch WG755434, the concentration of Chromium,Dissolved was above the method reporting limit.

For batch WG755209, the concentration of Chromium and Lead were above the method detection limit.

The remaining method blanks, initial calibration blank, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit except for WG755204 had a detection of Boron in the CCB.

Volatile TPH by Method 8015D/GRO

Laboratory Control Sample

Samples L733743-01, -10, -11, -12, -13, -14, -15, -25, -26, -27, and -28 were analyzed in analytical batch WG754942. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-30, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49, and -50 were analyzed in analytical batch WG754943. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Quality Control Summary

SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

Samples L733743-51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -66, -71, and -75 were analyzed in analytical batch WG754944. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-94, -95, -96, -97, -98, -100, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, and -112 were analyzed in analytical batch WG754945. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, and -132 were analyzed in analytical batch WG754946. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-135, -136, -137, -138, -143, -145, -146, -147, -151, -152, -153, -154, -155, -156, -157, and -158 were analyzed in analytical batch WG754947. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-159 and 160 were analyzed in analytical batch WG754948. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample L733743-02 was analyzed in analytical batch WG755413. The laboratory control sample associated with this sample was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-03, -04, -05, -06, -07, -08, -09, -29, -79, -93, and -99 were analyzed in analytical batch WG755883. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-69, -70, -72, -73, and -74 were analyzed in analytical batch WG755923. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-133, -148, -149, and -150 were analyzed in analytical batch WG756173. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG754942 matrix spike/matrix spike duplicate analysis was performed on sample L733743-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Quality Control Summary

SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

For analytical batch WG754943 matrix spike/matrix spike duplicate analysis was performed on sample L733743-30. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754944 matrix spike/matrix spike duplicate analysis was performed on sample L733743-51. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754945 matrix spike/matrix spike duplicate analysis was performed on sample L733743-102. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754946 matrix spike/matrix spike duplicate analysis was performed on sample L733743-123. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754947 matrix spike/matrix spike duplicate analysis was performed on sample L733743-153. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754948 matrix spike/matrix spike duplicate analysis was performed on sample L733743-159. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755413 matrix spike/matrix spike duplicate analysis was performed on sample L733020-03. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755883 matrix spike/matrix spike duplicate analysis was performed on sample L733869-15. The matrix spike recoveries were above laboratory control limits for TPH (GC/FID) Low Fraction. The relative percent difference exceeded laboratory limits for TPH (GC/FID) Low Fraction.

For analytical batch WG755923 matrix spike/matrix spike duplicate analysis was performed on sample L734685-03. The spiked sample was evaluated only for the parameters requested on that sample and did not require the parameters reported in this SDG. Therefore, no data is included in this report for this MS/D sample.

For analytical batch WG755923 matrix spike/matrix spike duplicate analysis was performed on sample L733743-69. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG756173 matrix spike/matrix spike duplicate analysis was performed on sample L733869-44. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Quality Control Summary SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

Volatile Organic Compounds by Method 8260B

Laboratory Control Sample

Samples L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, and -20 were analyzed in analytical batch WG754786. The laboratory control sample associated with these samples had all target analytes within method limits except for 1,1,1-Trichloroethane. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample L733743-21 was analyzed in analytical batch WG754787. The laboratory control sample associated with this sample was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, and -44 were analyzed in analytical batch WG754909. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch except for Bromomethane. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, and -65 were analyzed in analytical batch WG754914. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, and -86 were analyzed in analytical batch WG754915. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, and -105 were analyzed in analytical batch WG754916. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, and -125 were analyzed in analytical batch WG754917. The laboratory control sample associated with these samples had all target analytes within method limits except for Chloroethane and Naphthalene. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, and -141 were analyzed in analytical batch WG754918. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference exceeded laboratory limits for Acetone.

Samples L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, and -162 were analyzed in analytical batch WG754919. The laboratory control sample associated with these samples had all target analytes within method limits except for 2-Butanone (MEK). The relative percent difference exceeded laboratory limits for 2-Butanone (MEK).

Samples L733743-06, -07, -08, -09, -10, -11, and -12 were analyzed in analytical batch WG755340. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-106, -107, -110, and -115 were analyzed in analytical batch WG755673. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The

Quality Control Summary SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

relative percent difference exceeded laboratory limits for Bromomethane.

Samples L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, and -145 were analyzed in analytical batch WG755736. The laboratory control sample associated with these samples had all target analytes within method limits except for Bromomethane. The relative percent difference exceeded laboratory limits for Bromomethane.

Samples L733743-128, -135, -137, -138, -139, -142, -143, and -144 were analyzed in analytical batch WG755901. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-13, -14, -15, -26, -27, and -28 were analyzed in analytical batch WG756231. The laboratory control sample associated with these samples had all target analytes within method limits except for Chloroethane. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample L733743-97 was analyzed in analytical batch WG756371. The laboratory control sample associated with this sample was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-148, -150, -158, -159, and -160 were analyzed in analytical batch WG756413. The laboratory control sample associated with these samples had all target analytes within method limits except for 2-Butanone (MEK) and Acetone. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG754786 matrix spike/matrix spike duplicate analysis was performed on sample L733743-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754787 matrix spike/matrix spike duplicate analysis was performed on sample L733630-02. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754909 matrix spike/matrix spike duplicate analysis was performed on sample L733743-25. The matrix spike recoveries except for 2-Hexanone and 4-Methyl-2-pentanone (MIBK) and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754914 matrix spike/matrix spike duplicate analysis was performed on sample L733743-45. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754915 matrix spike/matrix spike duplicate analysis was performed on sample L733743-67. The matrix spike recoveries were above laboratory control limits for Bromoform and Chlorodibromomethane. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference exceeded laboratory limits for 1,1-Dichloroethene, Carbon disulfide, and Vinyl chloride.

For analytical batch WG754916 matrix spike/matrix spike duplicate analysis was performed on sample L733743-99. The matrix spike recoveries were within laboratory control limits for all target analytes reported from this batch. The relative percent difference exceeded laboratory limits for Bromomethane.

For analytical batch WG754917 matrix spike/matrix spike duplicate analysis was performed on sample L733743-115. The matrix spike recoveries were above laboratory control limits for 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-

Quality Control Summary

SDG: L733743

For: ARCADIS US - TX
Project: Navajo Refining Company - Artesia,
January 27, 2015

Trichloroethane, 1,2-Dibromoethane, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 2-Butanone (MEK), 2-Hexanone, 4-Methyl-2-pentanone (MIBK), Bromodichloromethane, Bromoform, Chlorobenzene, Chlorodibromomethane, Chloroform, cis-1,3-Dichloropropene, Naphthalene, n-Butylbenzene, o-Xylene, Styrene, trans-1,3-Dichloropropene, and Xylenes, Total. The matrix spike recoveries were below laboratory control limits for Benzene and Chloroethane. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference exceeded laboratory limits for 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,2,4-Trimethylbenzene, 1,2-Dibromoethane, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 2-Hexanone, 4-Methyl-2-pentanone (MIBK), Bromodichloromethane, Bromoform, Bromomethane, Carbon tetrachloride, Chlorobenzene, Chlorodibromomethane, Chloroform, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, m&p-Xylenes, Methyl tert-butyl ether, Naphthalene, n-Butylbenzene, o-Xylene, p-Isopropyltoluene, sec-Butylbenzene, Styrene, Tetrachloroethene, Toluene, trans-1,3-Dichloropropene, Trichloroethene, and Xylenes, Total.

For analytical batch WG754918 matrix spike/matrix spike duplicate analysis was performed on sample L733743-126. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754919 matrix spike/matrix spike duplicate analysis was performed on sample L733743-156. The matrix spike recoveries were above laboratory control limits for 2-Butanone (MEK). The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755340 matrix spike/matrix spike duplicate analysis was performed on sample L733584-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755673 matrix spike/matrix spike duplicate analysis was performed on sample L734213-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755736 matrix spike/matrix spike duplicate analysis was performed on sample L733686-01. The matrix spike recoveries were below laboratory control limits for Benzene. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755901 matrix spike/matrix spike duplicate analysis was performed on sample L733818-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG756231 matrix spike/matrix spike duplicate analysis was performed on sample L733847-05. The matrix spike recoveries were above laboratory control limits for Acetone and Naphthalene. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG756371 matrix spike/matrix spike duplicate analysis was performed on sample L734135-06. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Quality Control Summary SDG: L733743

For: ARCADIS US - TX
Project: Navajo Refining Company - Artesia,
January 27, 2015

For analytical batch WG756413 matrix spike/matrix spike duplicate analysis was performed on sample L733743-158. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Semi-Volatile Organic Compounds by Method 8270C

Laboratory Control Sample

Samples L733743-01, -02, -03, -04, and -05 were analyzed in analytical batch WG754898. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference exceeded laboratory limits for Benzo(a)pyrene.

Samples L733743-06, -07, -08, -09, and -11 were analyzed in analytical batch WG754905. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-10, -12, -13, -14, and -15 were analyzed in analytical batch WG755104. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

Precision for batch WG754898 was evaluated using the LCS/LCSD. The RPDs exceeded laboratory control limits for Benzo(a)pyrene. The other target analytes were within limits

For analytical batch WG754905 matrix spike/matrix spike duplicate analysis was performed on sample L733682-02. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Precision for batch WG755104 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Diesel Range Organics by Method 8015

Laboratory Control Sample

Samples L733743-43, -44, -45, -48, -49, -50, -51, -52, -53, -57, -59, -60, -63, -66, -69, -70, -71, -72, -73, and -40 were analyzed in analytical batch WG755117. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-100, -74, -75, -77, -80, -81, -82, -83, -84, -85, -88, -91, -92, -98, -101, -102, -103, -105, -106, and -108 were analyzed in analytical batch WG755118. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Quality Control Summary

SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

Samples L733743-27, -28, -30, -31, -32, -33, -35, -36, -39, -37, -41, -42, -46, -47, -54, -55, -58, -61, -62, and -67 were analyzed in analytical batch WG755119. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-78, -79, -86, -87, -90, -93, -94, -95, -96, -97, -99, -104, -107, -111, -114, -117, -119, -120, -121, and -125 were analyzed in analytical batch WG755121. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-109, -110, -112, -113, -115, -116, -126, -127, -128, -129, -131, -132, -139, -141, -142, -143, -146, -147, -158, and -159 were analyzed in analytical batch WG755122. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-01, -02, -03, -04, and -05 were analyzed in analytical batch WG755177. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-118, -122, -123, -124, -130, -133, -135, -136, -137, -138, -140, -144, -145, -148, -149, -150, -151, -152, -153, and -154 were analyzed in analytical batch WG755478. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-155, -156, -157, and -160 were analyzed in analytical batch WG755492. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -29, -34, and -38 were analyzed in analytical batch WG755545. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

Precision for batch WG755117 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755118 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755119 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755121 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755122 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755177 was evaluated using the LCS/LCSD. The RPDs were within method limits.



12065 Lebanon Rd
Mt. Juliet, TN 37122
(615) 758-5858
(800) 767-5859
Fax (615) 758-5859
Tax I.D 62-0814289
Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary SDG: L733743

For: ARCADIS US - TX
Project: Navajo Refining Company - Artesia,
January 27, 2015

Precision for batch WG755478 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755492 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755545 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit except for WG755177.

ESC Representative
ESC Lab Sciences



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Report Summary

Tuesday January 27, 2015

Report Number: L733743

Samples Received: 11/14/14

Client Project: TX000836.0008.00004

Description: Navajo Refining Company - Artesia, NM

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Pam Langford , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BIO041, ND - R-140. NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

This report may not be reproduced, except in full, without written approval from ESC Lab Sciences. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Case Narrative

Tuesday January 27, 2015

Report Number: L733743

Samples Received: 11/14/14

Client Project: TX000836.0008.00004

Description: Navajo Refining Company - Artesia, NM

Other Comments

Concentrations above the laboratory reporting limit for DRO/ORO were noted in the method blank associated with samples -01 through -05. These samples were reextracted and reanalyzed, although samples -02 through -05 were below the laboratory detection limit in the initial analysis. The confirmation analysis performed outside of the method specified holding time confirms the initial in-hold results. Re-extraction was also performed for the DRO/ORO analysis of sample -88 due to the exceedingly high surrogate recovery in the initial analysis. The re-extraction/reanalysis was performed outside holding time for the method, and the surrogate recovery was within range. However, while concentrations were seen and chromatographic comparisons consistent in both analyses for sample -88, a greater than 40% difference was seen between the two results. The results obtained within holding time for DRO/ORO analysis is reported as primary for all samples discussed above.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-21
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 12:50

ESC Sample # : L733743-66
 Site ID : TMD
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	450000	2600	50000	ug/l		9056MOD	11/22/14	50
Fluoride	2400	9.9	100	ug/l		9056MOD	12/02/14	1
Sulfate	2900000	3900	250000	ug/l		9056MOD	11/22/14	50
Nitrate-Nitrite	17000	99.	500	ug/l		353.2	11/18/14	5
Dissolved Solids	5200000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	5.4	0.25	2.0	ug/l		6020	11/18/14	1
Barium	8.0	0.36	5.0	ug/l		6020	11/18/14	1
Calcium	600000	920	20000	ug/l		6020	11/18/14	20
Chromium	0.78	0.54	1.0	ug/l	J	6020	11/18/14	1
Iron	U	50.	100	ug/l		6020	11/18/14	1
Lead	U	0.24	2.0	ug/l		6020	11/18/14	1
Manganese	820	0.25	5.0	ug/l		6020	11/18/14	1
Potassium	1900	37.	1000	ug/l		6020	11/18/14	1
Selenium	18.	0.38	2.0	ug/l		6020	11/18/14	1
Sodium	430000	550	5000	ug/l		6020	11/18/14	5
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.8			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/22/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/22/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/22/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/22/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/22/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/22/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/22/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/22/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/22/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/22/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/22/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/22/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/22/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/22/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-21
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 12:50

ESC Sample # : L733743-66
 Site ID : TMD
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/22/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/22/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/22/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/22/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/22/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/22/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/22/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/22/14	1
Methyl tert-butyl ether	6.0	0.37	1.0	ug/l		8260B	11/22/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/22/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/22/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/22/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/22/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/22/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/22/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/22/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/22/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/22/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/22/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/22/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/22/14	1
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	11/22/14	1
Dibromofluoromethane	95.3			% Rec.		8260B	11/22/14	1
4-Bromofluorobenzene	102.			% Rec.		8260B	11/22/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	92.	22.	100	ug/l	J	8015	11/19/14	1
C28-C40 Oil Range	110	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	135.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-46R
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 16:40

ESC Sample # : L733743-67
 Site ID : TMD
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	290000	520	10000	ug/l		9056MOD	11/22/14	10
Fluoride	1900	99.	1000	ug/l		9056MOD	11/22/14	10
Sulfate	2300000	3900	250000	ug/l		9056MOD	12/05/14	50
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	3800000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	4.2	0.25	2.0	ug/l		6020	11/18/14	1
Barium	24.	0.36	5.0	ug/l		6020	11/18/14	1
Calcium	650000	920	20000	ug/l		6020	11/18/14	20
Chromium	2.8	0.54	1.0	ug/l		6020	11/18/14	1
Iron	1100	50.	100	ug/l		6020	11/18/14	1
Lead	0.83	0.24	2.0	ug/l	J	6020	11/18/14	1
Manganese	140	0.25	5.0	ug/l		6020	11/18/14	1
Potassium	2300	37.	1000	ug/l		6020	11/18/14	1
Selenium	3.4	0.38	2.0	ug/l		6020	11/18/14	1
Sodium	170000	550	5000	ug/l		6020	11/18/14	5
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/19/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Bromoform	U	0.47	1.0	ug/l	J5	8260B	11/19/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/19/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
Carbon disulfide	U	0.28	1.0	ug/l	J3	8260B	11/19/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/19/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l	J5	8260B	11/19/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/19/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/19/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/19/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l	J3	8260B	11/19/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/19/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/19/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-46R
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 16:40

ESC Sample # : L733743-67

Site ID : TMD

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/19/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/19/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/19/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/19/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/19/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/19/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/19/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/19/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/19/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/19/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/19/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/19/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/19/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/19/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/19/14	1
Vinyl chloride	U	0.26	1.0	ug/l	J3	8260B	11/19/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/19/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/19/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/19/14	1
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	11/19/14	1
Dibromofluoromethane	104.			% Rec.		8260B	11/19/14	1
4-Bromofluorobenzene	107.			% Rec.		8260B	11/19/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	42.	22.	100	ug/l	J	8015	11/21/14	1
C28-C40 Oil Range	32.	12.	100	ug/l	J	8015	11/21/14	1
Surrogate Recovery								
o-Terphenyl	124.			% Rec.		8015	11/21/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-68

Sample ID : NP-1

Site ID : TMD

Collected By : SU/HMI Team
 Collection Date : 11/12/14 13:50

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/19/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/19/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/19/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/19/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/19/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/19/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/19/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/19/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/19/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/19/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/19/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/19/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/19/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/19/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/19/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/19/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/19/14	1
Methyl tert-butyl ether	84.	0.37	1.0	ug/l		8260B	11/19/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/19/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/19/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/19/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/19/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/19/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/19/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : NP-1
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 13:50

ESC Sample # : L733743-68

Site ID : TMD

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/19/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/19/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/19/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/19/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/19/14	1
Surrogate Recovery								
Toluene-d8		104.		%	Rec.	8260B	11/19/14	1
Dibromofluoromethane		103.		%	Rec.	8260B	11/19/14	1
4-Bromofluorobenzene		105.		%	Rec.	8260B	11/19/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-49
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 16:00

ESC Sample # : L733743-69
 Site ID : TEL
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	380000	1000	20000	ug/l		9056MOD	11/22/14	20
Fluoride	1600	9.9	100	ug/l		9056MOD	12/02/14	1
Sulfate	500000	1500	100000	ug/l		9056MOD	11/22/14	20
Cyanide	U	1.8	5.0	ug/l		9012B	11/21/14	1
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	2100000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	5.5	0.25	2.0	ug/l		6020	11/18/14	1
Barium	100	0.36	5.0	ug/l		6020	11/18/14	1
Calcium	280000	230	5000	ug/l		6020	11/18/14	5
Chromium	8.2	0.54	1.0	ug/l		6020	11/18/14	1
Iron	3400	50.	100	ug/l		6020	11/18/14	1
Lead	12.	0.24	2.0	ug/l		6020	11/18/14	1
Manganese	330	0.25	5.0	ug/l		6020	11/18/14	1
Nickel	20.	0.35	2.0	ug/l		6020	11/18/14	1
Potassium	3300	37.	1000	ug/l		6020	11/18/14	1
Selenium	1.9	0.38	2.0	ug/l	J	6020	11/18/14	1
Sodium	320000	550	5000	ug/l		6020	11/18/14	5
Vanadium	11.	0.18	5.0	ug/l		6020	11/18/14	1
Mercury	U	0.049	0.20	ug/l		7470A	11/18/14	1
TPH (GC/FID) Low Fraction	1000	31.	100	ug/l		8015D/G	11/21/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	92.0			% Rec.		8015D/G	11/21/14	1
Volatile Organics								
Acetone	U	20.	100	ug/l		8260B	11/20/14	2
Benzene	170	0.66	2.0	ug/l		8260B	11/20/14	2
Bromodichloromethane	U	0.76	2.0	ug/l		8260B	11/20/14	2
Bromoform	U	0.94	2.0	ug/l		8260B	11/20/14	2
Bromomethane	U	1.7	10.	ug/l	J4	8260B	11/20/14	2
n-Butylbenzene	2.6	0.72	2.0	ug/l		8260B	11/20/14	2
sec-Butylbenzene	4.4	0.73	2.0	ug/l		8260B	11/20/14	2
Carbon disulfide	3.5	0.55	2.0	ug/l		8260B	11/20/14	2
Carbon tetrachloride	U	0.76	2.0	ug/l		8260B	11/20/14	2
Chlorobenzene	U	0.70	2.0	ug/l		8260B	11/20/14	2
Chlorodibromomethane	U	0.65	2.0	ug/l		8260B	11/20/14	2
Chloroethane	U	0.91	10.	ug/l		8260B	11/20/14	2
Chloroform	U	0.65	10.	ug/l		8260B	11/20/14	2

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-49
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 16:00

ESC Sample # : L733743-69
 Site ID : TEL
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloromethane	U	0.55	5.0	ug/l		8260B	11/20/14	2
1,2-Dibromoethane	U	0.76	2.0	ug/l		8260B	11/20/14	2
1,1-Dichloroethane	U	0.52	2.0	ug/l		8260B	11/20/14	2
1,2-Dichloroethane	U	0.72	2.0	ug/l		8260B	11/20/14	2
1,1-Dichloroethene	U	0.80	2.0	ug/l		8260B	11/20/14	2
cis-1,2-Dichloroethene	U	0.52	2.0	ug/l		8260B	11/20/14	2
trans-1,2-Dichloroethene	U	0.79	2.0	ug/l		8260B	11/20/14	2
1,2-Dichloropropane	U	0.61	2.0	ug/l		8260B	11/20/14	2
cis-1,3-Dichloropropene	U	0.84	2.0	ug/l		8260B	11/20/14	2
trans-1,3-Dichloropropene	U	0.84	2.0	ug/l		8260B	11/20/14	2
Ethylbenzene	3.6	0.77	2.0	ug/l		8260B	11/20/14	2
Isopropylbenzene	22.	0.65	2.0	ug/l		8260B	11/20/14	2
p-Isopropyltoluene	0.95	0.70	2.0	ug/l	J	8260B	11/20/14	2
2-Butanone (MEK)	U	7.9	20.	ug/l		8260B	11/20/14	2
2-Hexanone	U	7.6	20.	ug/l		8260B	11/20/14	2
Methylene Chloride	U	2.0	10.	ug/l		8260B	11/20/14	2
4-Methyl-2-pentanone (MIBK)	U	4.3	20.	ug/l		8260B	11/20/14	2
Methyl tert-butyl ether	55.	0.73	2.0	ug/l		8260B	11/20/14	2
Naphthalene	3.1	2.0	10.	ug/l	J	8260B	11/20/14	2
n-Propylbenzene	19.	0.70	2.0	ug/l		8260B	11/20/14	2
Styrene	U	0.61	2.0	ug/l		8260B	11/20/14	2
1,1,1,2-Tetrachloroethane	U	0.77	2.0	ug/l		8260B	11/20/14	2
1,1,2,2-Tetrachloroethane	U	0.26	2.0	ug/l		8260B	11/20/14	2
Tetrachloroethene	U	0.74	2.0	ug/l		8260B	11/20/14	2
Toluene	2.9	1.6	10.	ug/l	J	8260B	11/20/14	2
1,1,1-Trichloroethane	U	0.64	2.0	ug/l		8260B	11/20/14	2
1,1,2-Trichloroethane	U	0.77	2.0	ug/l		8260B	11/20/14	2
Trichloroethene	U	0.80	2.0	ug/l		8260B	11/20/14	2
1,2,4-Trimethylbenzene	17.	0.75	2.0	ug/l		8260B	11/20/14	2
1,3,5-Trimethylbenzene	1.8	0.77	2.0	ug/l	J	8260B	11/20/14	2
Vinyl chloride	U	0.52	2.0	ug/l		8260B	11/20/14	2
o-Xylene	U	0.68	2.0	ug/l		8260B	11/20/14	2
m&p-Xylene	26.	1.4	4.0	ug/l		8260B	11/20/14	2
Xylenes, Total	26.	2.1	6.0	ug/l		8260B	11/20/14	2
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	11/20/14	1
Dibromofluoromethane	100.			% Rec.		8260B	11/20/14	1
4-Bromofluorobenzene	96.1			% Rec.		8260B	11/20/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	7000	22.	100	ug/l		8015	11/19/14	1
C28-C40 Oil Range	1100	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-49
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 16:00

ESC Sample # : L733743-69
 Site ID : TEL
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
o-Terphenyl	130.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : TEL-1
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 10:20

ESC Sample # : L733743-70
 Site ID : TEL
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	150000	2600	50000	ug/l		9056MOD	11/22/14	50
Fluoride	3100	9.9	100	ug/l		9056MOD	12/02/14	1
Sulfate	1900000	3900	250000	ug/l		9056MOD	11/22/14	50
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	3600000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	2.6	0.25	2.0	ug/l		6020	11/18/14	1
Barium	11.	0.36	5.0	ug/l		6020	11/18/14	1
Calcium	600000	920	20000	ug/l		6020	11/18/14	20
Chromium	0.90	0.54	1.0	ug/l	J	6020	11/18/14	1
Iron	U	50.	100	ug/l		6020	11/18/14	1
Lead	U	0.24	2.0	ug/l		6020	11/18/14	1
Manganese	140	0.25	5.0	ug/l		6020	11/18/14	1
Potassium	1900	37.	1000	ug/l		6020	11/18/14	1
Selenium	U	0.38	2.0	ug/l		6020	11/18/14	1
Sodium	340000	550	5000	ug/l		6020	11/18/14	5
TPH (GC/FID) Low Fraction	200	31.	100	ug/l		8015D/G	11/21/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	101.			% Rec.		8015D/G	11/21/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/20/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/20/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/20/14	1
Bromomethane	U	0.87	5.0	ug/l	J4	8260B	11/20/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/20/14	1
sec-Butylbenzene	1.2	0.36	1.0	ug/l		8260B	11/20/14	1
Carbon disulfide	1.9	0.28	1.0	ug/l		8260B	11/20/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/20/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/20/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/20/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/20/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/20/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/20/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/20/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/20/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/20/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-70

Sample ID : TEL-1

Site ID : TEL

Collected By : SU/HMI Team
 Collection Date : 11/12/14 10:20

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/20/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/20/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/20/14	1
Ethylbenzene	0.47	0.38	1.0	ug/l	J	8260B	11/20/14	1
Isopropylbenzene	1.3	0.33	1.0	ug/l		8260B	11/20/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/20/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/20/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/20/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/20/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/20/14	1
Methyl tert-butyl ether	1.8	0.37	1.0	ug/l		8260B	11/20/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/20/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/20/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/20/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/20/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/20/14	1
Toluene	0.99	0.78	5.0	ug/l	J	8260B	11/20/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/20/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
1,2,4-Trimethylbenzene	0.86	0.37	1.0	ug/l	J	8260B	11/20/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/20/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/20/14	1
o-Xylene	2.2	0.34	1.0	ug/l		8260B	11/20/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/20/14	1
Xylenes, Total	2.2	1.1	3.0	ug/l	J	8260B	11/20/14	1
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	11/20/14	1
Dibromofluoromethane	100.			% Rec.		8260B	11/20/14	1
4-Bromofluorobenzene	92.9			% Rec.		8260B	11/20/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	6000	22.	100	ug/l		8015	11/19/14	1
C28-C40 Oil Range	1100	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	149.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : TEL-2
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 11:15

ESC Sample # : L733743-71
 Site ID : TEL
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	300000	1000	20000	ug/l		9056MOD	11/22/14	20
Fluoride	1400	9.9	100	ug/l		9056MOD	12/02/14	1
Sulfate	580000	1500	100000	ug/l		9056MOD	11/22/14	20
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	2400000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	12.	0.25	2.0	ug/l		6020	11/18/14	1
Barium	110	0.36	5.0	ug/l		6020	11/18/14	1
Calcium	250000	230	5000	ug/l		6020	11/18/14	5
Chromium	1.7	0.54	1.0	ug/l		6020	11/18/14	1
Iron	U	50.	100	ug/l		6020	11/18/14	1
Lead	2.4	0.24	2.0	ug/l		6020	11/18/14	1
Manganese	13.	0.25	5.0	ug/l		6020	11/18/14	1
Potassium	1300	37.	1000	ug/l		6020	11/18/14	1
Selenium	1.1	0.38	2.0	ug/l	J	6020	11/18/14	1
Sodium	390000	550	5000	ug/l		6020	11/18/14	5
TPH (GC/FID) Low Fraction	1700	780	2500	ug/l	J	8015D/G	11/20/14	25
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	99.3			% Rec.		8015D/G	11/20/14	25
Volatile Organics								
Acetone	U	100	500	ug/l		8260B	11/20/14	10
Benzene	870	3.3	10.	ug/l		8260B	11/20/14	10
Bromodichloromethane	U	3.8	10.	ug/l		8260B	11/20/14	10
Bromoform	U	4.7	10.	ug/l		8260B	11/20/14	10
Bromomethane	U	8.7	50.	ug/l	J4	8260B	11/20/14	10
n-Butylbenzene	4.0	3.6	10.	ug/l	J	8260B	11/20/14	10
sec-Butylbenzene	6.1	3.6	10.	ug/l	J	8260B	11/20/14	10
Carbon disulfide	U	2.8	10.	ug/l		8260B	11/20/14	10
Carbon tetrachloride	U	3.8	10.	ug/l		8260B	11/20/14	10
Chlorobenzene	U	3.5	10.	ug/l		8260B	11/20/14	10
Chlorodibromomethane	U	3.3	10.	ug/l		8260B	11/20/14	10
Chloroethane	U	4.5	50.	ug/l		8260B	11/20/14	10
Chloroform	U	3.2	50.	ug/l		8260B	11/20/14	10
Chloromethane	U	2.8	25.	ug/l		8260B	11/20/14	10
1,2-Dibromoethane	U	3.8	10.	ug/l		8260B	11/20/14	10
1,1-Dichloroethane	U	2.6	10.	ug/l		8260B	11/20/14	10
1,2-Dichloroethane	U	3.6	10.	ug/l		8260B	11/20/14	10
1,1-Dichloroethene	U	4.0	10.	ug/l		8260B	11/20/14	10
cis-1,2-Dichloroethene	U	2.6	10.	ug/l		8260B	11/20/14	10

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-71

Sample ID : TEL-2

Site ID : TEL

Collected By : SU/HMI Team
 Collection Date : 11/12/14 11:15

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	4.0	10.	ug/l		8260B	11/20/14	10
1,2-Dichloropropane	U	3.1	10.	ug/l		8260B	11/20/14	10
cis-1,3-Dichloropropene	U	4.2	10.	ug/l		8260B	11/20/14	10
trans-1,3-Dichloropropene	U	4.2	10.	ug/l		8260B	11/20/14	10
Ethylbenzene	9.9	3.8	10.	ug/l	J	8260B	11/20/14	10
Isopropylbenzene	43.	3.3	10.	ug/l		8260B	11/20/14	10
p-Isopropyltoluene	4.3	3.5	10.	ug/l	J	8260B	11/20/14	10
2-Butanone (MEK)	U	39.	100	ug/l		8260B	11/20/14	10
2-Hexanone	U	38.	100	ug/l		8260B	11/20/14	10
Methylene Chloride	U	10.	50.	ug/l		8260B	11/20/14	10
4-Methyl-2-pentanone (MIBK)	U	21.	100	ug/l		8260B	11/20/14	10
Methyl tert-butyl ether	12.	3.7	10.	ug/l		8260B	11/20/14	10
Naphthalene	17.	10.	50.	ug/l	J	8260B	11/20/14	10
n-Propylbenzene	51.	3.5	10.	ug/l		8260B	11/20/14	10
Styrene	U	3.1	10.	ug/l		8260B	11/20/14	10
1,1,1,2-Tetrachloroethane	U	3.8	10.	ug/l		8260B	11/20/14	10
1,1,2,2-Tetrachloroethane	U	1.3	10.	ug/l		8260B	11/20/14	10
Tetrachloroethene	U	3.7	10.	ug/l		8260B	11/20/14	10
Toluene	34.	7.8	50.	ug/l	J	8260B	11/20/14	10
1,1,1-Trichloroethane	U	3.2	10.	ug/l		8260B	11/20/14	10
1,1,2-Trichloroethane	U	3.8	10.	ug/l		8260B	11/20/14	10
Trichloroethene	U	4.0	10.	ug/l		8260B	11/20/14	10
1,2,4-Trimethylbenzene	140	3.7	10.	ug/l		8260B	11/20/14	10
1,3,5-Trimethylbenzene	26.	3.9	10.	ug/l		8260B	11/20/14	10
Vinyl chloride	U	2.6	10.	ug/l		8260B	11/20/14	10
o-Xylene	16.	3.4	10.	ug/l		8260B	11/20/14	10
m&p-Xylene	180	7.2	20.	ug/l		8260B	11/20/14	10
Xylenes, Total	200	11.	30.	ug/l		8260B	11/20/14	10
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	11/20/14	1
Dibromofluoromethane	100.			% Rec.		8260B	11/20/14	1
4-Bromofluorobenzene	94.0			% Rec.		8260B	11/20/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	18000	110	500	ug/l		8015	11/21/14	5
C28-C40 Oil Range	4800	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	113.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-72

Sample ID : TEL-3

Site ID : TEL

Collected By : SU/HMI Team
 Collection Date : 11/12/14 12:10

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	50000	52.	1000	ug/l		9056MOD	12/02/14	1
Fluoride	3700	9.9	100	ug/l		9056MOD	12/02/14	1
Sulfate	1600000	1500	100000	ug/l		9056MOD	11/22/14	20
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	2900000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	1.3	0.25	2.0	ug/l	J	6020	11/18/14	1
Barium	12.	0.36	5.0	ug/l		6020	11/18/14	1
Calcium	710000	920	20000	ug/l		6020	11/18/14	20
Chromium	5.3	0.54	1.0	ug/l		6020	11/18/14	1
Iron	76.	50.	100	ug/l	J	6020	11/18/14	1
Lead	U	0.24	2.0	ug/l		6020	11/18/14	1
Manganese	15.	0.25	5.0	ug/l		6020	11/18/14	1
Potassium	6600	37.	1000	ug/l		6020	11/18/14	1
Selenium	U	0.38	2.0	ug/l		6020	11/18/14	1
Sodium	49000	110	1000	ug/l		6020	11/18/14	1
TPH (GC/FID) Low Fraction	450	31.	100	ug/l		8015D/G	11/21/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	91.5			% Rec.		8015D/G	11/21/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/20/14	1
Benzene	23.	0.33	1.0	ug/l		8260B	11/20/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/20/14	1
Bromomethane	U	0.87	5.0	ug/l	J4	8260B	11/20/14	1
n-Butylbenzene	1.6	0.36	1.0	ug/l		8260B	11/20/14	1
sec-Butylbenzene	9.3	0.36	1.0	ug/l		8260B	11/20/14	1
Carbon disulfide	4.7	0.28	1.0	ug/l		8260B	11/20/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/20/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/20/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/20/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/20/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/20/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/20/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/20/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/20/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/20/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : TEL-3
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 12:10

ESC Sample # : L733743-72
 Site ID : TEL
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/20/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/20/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/20/14	1
Ethylbenzene	0.68	0.38	1.0	ug/l	J	8260B	11/20/14	1
Isopropylbenzene	50.	0.33	1.0	ug/l		8260B	11/20/14	1
p-Isopropyltoluene	0.88	0.35	1.0	ug/l	J	8260B	11/20/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/20/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/20/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/20/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/20/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/20/14	1
Naphthalene	1.0	1.0	5.0	ug/l	J	8260B	11/20/14	1
n-Propylbenzene	8.7	0.35	1.0	ug/l		8260B	11/20/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/20/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/20/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/20/14	1
Toluene	1.0	0.78	5.0	ug/l	J	8260B	11/20/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/20/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
1,2,4-Trimethylbenzene	16.	0.37	1.0	ug/l		8260B	11/20/14	1
1,3,5-Trimethylbenzene	1.7	0.39	1.0	ug/l		8260B	11/20/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/20/14	1
o-Xylene	2.3	0.34	1.0	ug/l		8260B	11/20/14	1
m&p-Xylene	12.	0.72	2.0	ug/l		8260B	11/20/14	1
Xylenes, Total	14.	1.1	3.0	ug/l		8260B	11/20/14	1
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	11/20/14	1
Dibromofluoromethane	104.			% Rec.		8260B	11/20/14	1
4-Bromofluorobenzene	95.5			% Rec.		8260B	11/20/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	6300	22.	100	ug/l		8015	11/19/14	1
C28-C40 Oil Range	1900	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	102.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : TEL-4
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 13:35

ESC Sample # : L733743-73
 Site ID : TEL
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	440000	2600	50000	ug/l		9056MOD	11/22/14	50
Fluoride	1900	9.9	100	ug/l		9056MOD	12/02/14	1
Sulfate	1800000	3900	250000	ug/l		9056MOD	11/22/14	50
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	4200000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	10.	0.25	2.0	ug/l		6020	11/19/14	1
Barium	43.	0.36	5.0	ug/l		6020	11/19/14	1
Calcium	380000	230	5000	ug/l	O1V	6020	11/19/14	5
Chromium	380	0.54	1.0	ug/l	B	6020	11/19/14	1
Iron	93.	50.	100	ug/l	J	6020	11/19/14	1
Lead	3.5	0.24	2.0	ug/l	B	6020	11/19/14	1
Manganese	290	0.25	5.0	ug/l		6020	11/19/14	1
Potassium	620	37.	1000	ug/l	J	6020	11/19/14	1
Selenium	U	0.38	2.0	ug/l		6020	11/19/14	1
Sodium	530000	1100	10000	ug/l	O1V	6020	11/19/14	10
TPH (GC/FID) Low Fraction	3300	160	500	ug/l		8015D/G	11/21/14	5
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	88.1			% Rec.		8015D/G	11/21/14	1
Volatile Organics								
Acetone	U	200	1000	ug/l		8260B	11/20/14	20
Benzene	1200	6.6	20.	ug/l		8260B	11/20/14	20
Bromodichloromethane	U	7.6	20.	ug/l		8260B	11/20/14	20
Bromoform	U	9.4	20.	ug/l		8260B	11/20/14	20
Bromomethane	U	17.	100	ug/l	J4	8260B	11/20/14	20
n-Butylbenzene	U	7.2	20.	ug/l		8260B	11/20/14	20
sec-Butylbenzene	13.	7.3	20.	ug/l	J	8260B	11/20/14	20
Carbon disulfide	42.	5.5	20.	ug/l		8260B	11/20/14	20
Carbon tetrachloride	U	7.6	20.	ug/l		8260B	11/20/14	20
Chlorobenzene	U	7.0	20.	ug/l		8260B	11/20/14	20
Chlorodibromomethane	U	6.5	20.	ug/l		8260B	11/20/14	20
Chloroethane	U	9.1	100	ug/l		8260B	11/20/14	20
Chloroform	U	6.5	100	ug/l		8260B	11/20/14	20
Chloromethane	U	5.5	50.	ug/l		8260B	11/20/14	20
1,2-Dibromoethane	U	7.6	20.	ug/l		8260B	11/20/14	20
1,1-Dichloroethane	U	5.2	20.	ug/l		8260B	11/20/14	20
1,2-Dichloroethane	U	7.2	20.	ug/l		8260B	11/20/14	20
1,1-Dichloroethene	U	8.0	20.	ug/l		8260B	11/20/14	20
cis-1,2-Dichloroethene	U	5.2	20.	ug/l		8260B	11/20/14	20

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-73

Sample ID : TEL-4

Site ID : TEL

Collected By : SU/HMI Team
 Collection Date : 11/12/14 13:35

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	7.9	20.	ug/l		8260B	11/20/14	20
1,2-Dichloropropane	U	6.1	20.	ug/l		8260B	11/20/14	20
cis-1,3-Dichloropropene	U	8.4	20.	ug/l		8260B	11/20/14	20
trans-1,3-Dichloropropene	U	8.4	20.	ug/l		8260B	11/20/14	20
Ethylbenzene	8.7	7.7	20.	ug/l	J	8260B	11/20/14	20
Isopropylbenzene	48.	6.5	20.	ug/l		8260B	11/20/14	20
p-Isopropyltoluene	U	7.0	20.	ug/l		8260B	11/20/14	20
2-Butanone (MEK)	U	79.	200	ug/l		8260B	11/20/14	20
2-Hexanone	U	76.	200	ug/l		8260B	11/20/14	20
Methylene Chloride	U	20.	100	ug/l		8260B	11/20/14	20
4-Methyl-2-pentanone (MIBK)	U	43.	200	ug/l		8260B	11/20/14	20
Methyl tert-butyl ether	64.	7.3	20.	ug/l		8260B	11/20/14	20
Naphthalene	U	20.	100	ug/l		8260B	11/20/14	20
n-Propylbenzene	68.	7.0	20.	ug/l		8260B	11/20/14	20
Styrene	U	6.1	20.	ug/l		8260B	11/20/14	20
1,1,1,2-Tetrachloroethane	U	7.7	20.	ug/l		8260B	11/20/14	20
1,1,2,2-Tetrachloroethane	U	2.6	20.	ug/l		8260B	11/20/14	20
Tetrachloroethene	U	7.4	20.	ug/l		8260B	11/20/14	20
Toluene	U	16.	100	ug/l		8260B	11/20/14	20
1,1,1-Trichloroethane	U	6.4	20.	ug/l		8260B	11/20/14	20
1,1,2-Trichloroethane	U	7.7	20.	ug/l		8260B	11/20/14	20
Trichloroethene	U	8.0	20.	ug/l		8260B	11/20/14	20
1,2,4-Trimethylbenzene	110	7.5	20.	ug/l		8260B	11/20/14	20
1,3,5-Trimethylbenzene	U	7.7	20.	ug/l		8260B	11/20/14	20
Vinyl chloride	U	5.2	20.	ug/l		8260B	11/20/14	20
o-Xylene	U	6.8	20.	ug/l		8260B	11/20/14	20
m&p-Xylene	120	14.	40.	ug/l		8260B	11/20/14	20
Xylenes, Total	120	21.	60.	ug/l		8260B	11/20/14	20
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	11/20/14	1
Dibromofluoromethane	104.			% Rec.		8260B	11/20/14	1
4-Bromofluorobenzene	96.8			% Rec.		8260B	11/20/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	7400	22.	100	ug/l		8015	11/19/14	1
C28-C40 Oil Range	1300	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	136.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : DUP-TEL-01
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 12:00

ESC Sample # : L733743-74
 Site ID : TEL (QA/AC)
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	480000	5200	100000	ug/l		9056MOD	11/20/14	100
Fluoride	1300	9.9	100	ug/l		9056MOD	11/20/14	1
Sulfate	2100000	7700	500000	ug/l		9056MOD	11/20/14	100
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	4100000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	10.	0.25	2.0	ug/l		6020	11/19/14	1
Barium	42.	0.36	5.0	ug/l		6020	11/19/14	1
Calcium	360000	230	5000	ug/l		6020	11/19/14	5
Chromium	510	0.54	1.0	ug/l	B	6020	11/19/14	1
Iron	130	50.	100	ug/l		6020	11/19/14	1
Lead	3.4	0.24	2.0	ug/l	B	6020	11/19/14	1
Manganese	280	0.25	5.0	ug/l		6020	11/19/14	1
Potassium	620	37.	1000	ug/l	J	6020	11/19/14	1
Selenium	U	0.38	2.0	ug/l		6020	11/19/14	1
Sodium	520000	1100	10000	ug/l		6020	11/19/14	10
TPH (GC/FID) Low Fraction	2800	160	500	ug/l		8015D/G	11/21/14	5
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	89.9			% Rec.		8015D/G	11/21/14	1
Volatile Organics								
Acetone	U	200	1000	ug/l		8260B	11/20/14	20
Benzene	1200	6.6	20.	ug/l		8260B	11/20/14	20
Bromodichloromethane	U	7.6	20.	ug/l		8260B	11/20/14	20
Bromoform	U	9.4	20.	ug/l		8260B	11/20/14	20
Bromomethane	U	17.	100	ug/l	J4	8260B	11/20/14	20
n-Butylbenzene	U	7.2	20.	ug/l		8260B	11/20/14	20
sec-Butylbenzene	12.	7.3	20.	ug/l	J	8260B	11/20/14	20
Carbon disulfide	38.	5.5	20.	ug/l		8260B	11/20/14	20
Carbon tetrachloride	U	7.6	20.	ug/l		8260B	11/20/14	20
Chlorobenzene	U	7.0	20.	ug/l		8260B	11/20/14	20
Chlorodibromomethane	U	6.5	20.	ug/l		8260B	11/20/14	20
Chloroethane	U	9.1	100	ug/l		8260B	11/20/14	20
Chloroform	U	6.5	100	ug/l		8260B	11/20/14	20
Chloromethane	U	5.5	50.	ug/l		8260B	11/20/14	20
1,2-Dibromoethane	U	7.6	20.	ug/l		8260B	11/20/14	20
1,1-Dichloroethane	U	5.2	20.	ug/l		8260B	11/20/14	20
1,2-Dichloroethane	U	7.2	20.	ug/l		8260B	11/20/14	20
1,1-Dichloroethene	U	8.0	20.	ug/l		8260B	11/20/14	20
cis-1,2-Dichloroethene	U	5.2	20.	ug/l		8260B	11/20/14	20

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-74

Sample ID : DUP-TEL-01

Site ID : TEL (QA/AC)

Collected By : SU/HMI Team
 Collection Date : 11/12/14 12:00

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	7.9	20.	ug/l		8260B	11/20/14	20
1,2-Dichloropropane	U	6.1	20.	ug/l		8260B	11/20/14	20
cis-1,3-Dichloropropene	U	8.4	20.	ug/l		8260B	11/20/14	20
trans-1,3-Dichloropropene	U	8.4	20.	ug/l		8260B	11/20/14	20
Ethylbenzene	8.5	7.7	20.	ug/l	J	8260B	11/20/14	20
Isopropylbenzene	48.	6.5	20.	ug/l		8260B	11/20/14	20
p-Isopropyltoluene	U	7.0	20.	ug/l		8260B	11/20/14	20
2-Butanone (MEK)	U	79.	200	ug/l		8260B	11/20/14	20
2-Hexanone	U	76.	200	ug/l		8260B	11/20/14	20
Methylene Chloride	U	20.	100	ug/l		8260B	11/20/14	20
4-Methyl-2-pentanone (MIBK)	U	43.	200	ug/l		8260B	11/20/14	20
Methyl tert-butyl ether	66.	7.3	20.	ug/l		8260B	11/20/14	20
Naphthalene	U	20.	100	ug/l		8260B	11/20/14	20
n-Propylbenzene	67.	7.0	20.	ug/l		8260B	11/20/14	20
Styrene	U	6.1	20.	ug/l		8260B	11/20/14	20
1,1,1,2-Tetrachloroethane	U	7.7	20.	ug/l		8260B	11/20/14	20
1,1,2,2-Tetrachloroethane	U	2.6	20.	ug/l		8260B	11/20/14	20
Tetrachloroethene	U	7.4	20.	ug/l		8260B	11/20/14	20
Toluene	U	16.	100	ug/l		8260B	11/20/14	20
1,1,1-Trichloroethane	U	6.4	20.	ug/l		8260B	11/20/14	20
1,1,2-Trichloroethane	U	7.7	20.	ug/l		8260B	11/20/14	20
Trichloroethene	U	8.0	20.	ug/l		8260B	11/20/14	20
1,2,4-Trimethylbenzene	110	7.5	20.	ug/l		8260B	11/20/14	20
1,3,5-Trimethylbenzene	U	7.7	20.	ug/l		8260B	11/20/14	20
Vinyl chloride	U	5.2	20.	ug/l		8260B	11/20/14	20
o-Xylene	U	6.8	20.	ug/l		8260B	11/20/14	20
m&p-Xylene	120	14.	40.	ug/l		8260B	11/20/14	20
Xylenes, Total	120	21.	60.	ug/l		8260B	11/20/14	20
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	11/20/14	1
Dibromofluoromethane	105.			% Rec.		8260B	11/20/14	1
4-Bromofluorobenzene	96.2			% Rec.		8260B	11/20/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	5700	110	500	ug/l		8015	11/20/14	5
C28-C40 Oil Range	1600	59.	500	ug/l		8015	11/20/14	5
Surrogate Recovery								
o-Terphenyl	111.			% Rec.		8015	11/20/14	5

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : EB-TEL-01
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 12:35

ESC Sample # : L733743-75
 Site ID : TEL (QA/AC)
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	570	52.	1000	ug/l	J	9056MOD	11/20/14	1
Fluoride	U	9.9	100	ug/l		9056MOD	11/20/14	1
Sulfate	350	77.	5000	ug/l	J	9056MOD	11/20/14	1
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	U	2800	10000	ug/l	QT4	2540 C-	11/22/14	1
Arsenic	U	0.25	2.0	ug/l		6020	11/19/14	1
Barium	0.86	0.36	5.0	ug/l	J	6020	11/19/14	1
Calcium	460	46.	1000	ug/l	J	6020	11/19/14	1
Chromium	0.66	0.54	1.0	ug/l	JB	6020	11/19/14	1
Iron	U	50.	100	ug/l		6020	11/19/14	1
Lead	0.54	0.24	2.0	ug/l	JB	6020	11/19/14	1
Manganese	U	0.25	5.0	ug/l		6020	11/19/14	1
Potassium	U	37.	1000	ug/l		6020	11/19/14	1
Selenium	U	0.38	2.0	ug/l		6020	11/19/14	1
Sodium	980	110	1000	ug/l	J	6020	11/19/14	1
Zinc	U	2.6	25.	ug/l		6020	11/19/14	1
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.9			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/19/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/19/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/19/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/19/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/19/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/19/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/19/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/19/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/19/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : EB-TEL-01
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 12:35

ESC Sample # : L733743-75
 Site ID : TEL (QA/AC)
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/19/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/19/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/19/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/19/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/19/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/19/14	1
Methylene Chloride	1.2	1.0	5.0	ug/l	J	8260B	11/19/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/19/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/19/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/19/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/19/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/19/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/19/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/19/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/19/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/19/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/19/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/19/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/19/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/19/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/19/14	1
Surrogate Recovery								
Toluene-d8	106.			% Rec.		8260B	11/19/14	1
Dibromofluoromethane	103.			% Rec.		8260B	11/19/14	1
4-Bromofluorobenzene	106.			% Rec.		8260B	11/19/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	150	110	500	ug/l	J	8015	11/20/14	5
C28-C40 Oil Range	240	59.	500	ug/l	J	8015	11/20/14	5
Surrogate Recovery								
o-Terphenyl	125.			% Rec.		8015	11/20/14	5

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-76

Sample ID : TRIP BLANK-TEL-01

Site ID : TEL (QA/AC)

Collected By : SU/HMI Team
 Collection Date : 11/12/14 00:00

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/19/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/19/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/19/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/19/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/19/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/19/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/19/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/19/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/19/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/19/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/19/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/19/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/19/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/19/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/19/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/19/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/19/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/19/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/19/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/19/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/19/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/19/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/19/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/19/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : TRIP BLANK-TEL-01
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 00:00

ESC Sample # : L733743-76
 Site ID : TEL (QA/AC)
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/19/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/19/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/19/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/19/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/19/14	1
Surrogate Recovery								
Toluene-d8	103.			%	Rec.	8260B	11/19/14	1
Dibromofluoromethane	104.			%	Rec.	8260B	11/19/14	1
4-Bromofluorobenzene	108.			%	Rec.	8260B	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-45
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 08:15

ESC Sample # : L733743-77
 Site ID : NCL
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	470000	5200	100000	ug/l		300.0	11/28/14	100
Fluoride	1500	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	2000000	7700	500000	ug/l		300.0	11/28/14	100
Cyanide	U	1.8	5.0	ug/l		9012B	11/21/14	1
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	4300000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	2.8	0.25	2.0	ug/l		6020	11/19/14	1
Barium	18.	0.36	5.0	ug/l		6020	11/19/14	1
Calcium	590000	920	20000	ug/l		6020	11/19/14	20
Chromium	1.1	0.54	1.0	ug/l	B	6020	11/19/14	1
Iron	820	50.	100	ug/l		6020	11/19/14	1
Lead	4.7	0.24	2.0	ug/l	B	6020	11/19/14	1
Manganese	600	0.25	5.0	ug/l		6020	11/19/14	1
Nickel	8.3	0.35	2.0	ug/l		6020	11/19/14	1
Potassium	4600	37.	1000	ug/l		6020	11/19/14	1
Selenium	0.71	0.38	2.0	ug/l	J	6020	11/19/14	1
Sodium	360000	550	5000	ug/l		6020	11/19/14	5
Vanadium	0.30	0.18	5.0	ug/l	J	6020	11/19/14	1
Mercury	U	0.049	0.20	ug/l		7470A	11/18/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/19/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/19/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/19/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/19/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/19/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/19/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/19/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/19/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/19/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-77

Sample ID : MW-45

Site ID : NCL

Collected By : SU/HMI Team
 Collection Date : 11/12/14 08:15

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/19/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/19/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/19/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/19/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/19/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/19/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/19/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/19/14	1
Methyl tert-butyl ether	4.8	0.37	1.0	ug/l		8260B	11/19/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/19/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/19/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/19/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/19/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/19/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/19/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/19/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/19/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/19/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/19/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/19/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/19/14	1
Surrogate Recovery								
Toluene-d8	105.			% Rec.		8260B	11/19/14	1
Dibromofluoromethane	103.			% Rec.		8260B	11/19/14	1
4-Bromofluorobenzene	106.			% Rec.		8260B	11/19/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	860	110	500	ug/l		8015	11/20/14	5
C28-C40 Oil Range	480	59.	500	ug/l	J	8015	11/20/14	5
Surrogate Recovery								
o-Terphenyl	120.			% Rec.		8015	11/20/14	5

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-54A
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 11:25

ESC Sample # : L733743-78
 Site ID : NCL
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	190000	1000	20000	ug/l		300.0	11/28/14	20
Fluoride	1200	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	680000	1500	100000	ug/l		300.0	11/28/14	20
Nitrate-Nitrite	850	20.	100	ug/l	J3	353.2	11/18/14	1
Dissolved Solids	1900000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	4.5	0.25	2.0	ug/l		6020	11/19/14	1
Barium	19.	0.36	5.0	ug/l		6020	11/19/14	1
Calcium	370000	230	5000	ug/l		6020	11/19/14	5
Chromium	0.69	0.54	1.0	ug/l	JB	6020	11/19/14	1
Iron	79.	50.	100	ug/l	J	6020	11/19/14	1
Lead	0.77	0.24	2.0	ug/l	JB	6020	11/19/14	1
Manganese	450	0.25	5.0	ug/l		6020	11/19/14	1
Potassium	380	37.	1000	ug/l	J	6020	11/19/14	1
Selenium	U	0.38	2.0	ug/l		6020	11/19/14	1
Sodium	74000	110	1000	ug/l		6020	11/19/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/19/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/19/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/19/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
sec-Butylbenzene	0.79	0.36	1.0	ug/l	J	8260B	11/19/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/19/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/19/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/19/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/19/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/19/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/19/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/19/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/19/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-78

Sample ID : MW-54A

Site ID : NCL

Collected By : SU/HMI Team
 Collection Date : 11/13/14 11:25

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/19/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/19/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/19/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/19/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/19/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/19/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/19/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/19/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/19/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/19/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/19/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/19/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/19/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/19/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/19/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/19/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/19/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/19/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/19/14	1
Surrogate Recovery								
Toluene-d8	106.			% Rec.		8260B	11/19/14	1
Dibromofluoromethane	100.			% Rec.		8260B	11/19/14	1
4-Bromofluorobenzene	108.			% Rec.		8260B	11/19/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	2600	22.	100	ug/l		8015	11/18/14	1
C28-C40 Oil Range	990	12.	100	ug/l		8015	11/18/14	1
Surrogate Recovery								
o-Terphenyl	113.			% Rec.		8015	11/18/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-55
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 09:30

ESC Sample # : L733743-79
 Site ID : NCL
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	190000	5200	100000	ug/l		300.0	11/28/14	100
Fluoride	2400	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	2300000	7700	500000	ug/l		300.0	11/28/14	100
Cyanide	U	1.8	5.0	ug/l		9012B	11/21/14	1
Nitrate-Nitrite	6500	20.	100	ug/l	J6	353.2	11/18/14	1
Dissolved Solids	3600000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	4.5	0.25	2.0	ug/l		6020	11/19/14	1
Barium	13.	0.36	5.0	ug/l		6020	11/19/14	1
Calcium	610000	920	20000	ug/l		6020	11/19/14	20
Chromium	2.3	0.54	1.0	ug/l	B	6020	11/19/14	1
Iron	56.	50.	100	ug/l	J	6020	11/19/14	1
Lead	1.0	0.24	2.0	ug/l	JB	6020	11/19/14	1
Manganese	93.	0.25	5.0	ug/l		6020	11/19/14	1
Nickel	2.5	0.35	2.0	ug/l		6020	11/19/14	1
Potassium	900	37.	1000	ug/l	J	6020	11/19/14	1
Selenium	13.	0.38	2.0	ug/l		6020	11/19/14	1
Sodium	130000	550	5000	ug/l		6020	11/19/14	5
Vanadium	17.	0.18	5.0	ug/l		6020	11/19/14	1
Mercury	U	0.049	0.20	ug/l		7470A	11/18/14	1
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/21/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.9			% Rec.		8015D/G	11/21/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/19/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/19/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/19/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/19/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/19/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/19/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/19/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-79

Sample ID : MW-55

Site ID : NCL

Collected By : SU/HMI Team
 Collection Date : 11/13/14 09:30

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloromethane	U	0.28	2.5	ug/l		8260B	11/19/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/19/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/19/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/19/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/19/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/19/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/19/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/19/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/19/14	1
Methyl tert-butyl ether	0.49	0.37	1.0	ug/l	J	8260B	11/19/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/19/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/19/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/19/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/19/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/19/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/19/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/19/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/19/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/19/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/19/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/19/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/19/14	1
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	11/19/14	1
Dibromofluoromethane	102.			% Rec.		8260B	11/19/14	1
4-Bromofluorobenzene	105.			% Rec.		8260B	11/19/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	120	22.	100	ug/l		8015	11/18/14	1
C28-C40 Oil Range	64.	12.	100	ug/l	J	8015	11/18/14	1
Surrogate Recovery								

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-55
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 09:30

ESC Sample # : L733743-79
 Site ID : NCL
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
o-Terphenyl	113.			% Rec.		8015	11/18/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-56
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 09:25

ESC Sample # : L733743-80
 Site ID : NCL
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	340000	5200	100000	ug/l		300.0	11/28/14	100
Fluoride	1200	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	1900000	7700	500000	ug/l		300.0	11/28/14	100
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/19/14	1
Dissolved Solids	3500000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	6.7	0.25	2.0	ug/l		6020	11/19/14	1
Barium	14.	0.36	5.0	ug/l		6020	11/19/14	1
Calcium	540000	920	20000	ug/l		6020	11/19/14	20
Chromium	0.78	0.54	1.0	ug/l	JB	6020	11/19/14	1
Iron	61.	50.	100	ug/l	J	6020	11/19/14	1
Lead	1.5	0.24	2.0	ug/l	JB	6020	11/19/14	1
Manganese	350	0.25	5.0	ug/l		6020	11/19/14	1
Potassium	2100	37.	1000	ug/l		6020	11/19/14	1
Selenium	3.1	0.38	2.0	ug/l		6020	11/19/14	1
Sodium	250000	550	5000	ug/l		6020	11/19/14	5
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/19/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/19/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/19/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/19/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/19/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/19/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/19/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/19/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/19/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/19/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/19/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-56
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 09:25

ESC Sample # : L733743-80
 Site ID : NCL
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/19/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/19/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/19/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/19/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/19/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/19/14	1
Methyl tert-butyl ether	4.0	0.37	1.0	ug/l		8260B	11/19/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/19/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/19/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/19/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/19/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/19/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/19/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/19/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/19/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/19/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/19/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/19/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/19/14	1
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	11/19/14	1
Dibromofluoromethane	102.			% Rec.		8260B	11/19/14	1
4-Bromofluorobenzene	107.			% Rec.		8260B	11/19/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	800	110	500	ug/l		8015	11/21/14	5
C28-C40 Oil Range	180	59.	500	ug/l	J	8015	11/21/14	5
Surrogate Recovery								
o-Terphenyl	115.			% Rec.		8015	11/21/14	5

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-108
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 11:50

ESC Sample # : L733743-81
 Site ID : NCL
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	82000	52.	1000	ug/l		300.0	11/23/14	1
Fluoride	3300	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	1200000	7700	500000	ug/l		300.0	11/28/14	100
Nitrate-Nitrite	190	20.	100	ug/l		353.2	11/19/14	1
Dissolved Solids	2500000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	6.1	0.25	2.0	ug/l		6020	11/19/14	1
Barium	49.	0.36	5.0	ug/l		6020	11/19/14	1
Calcium	350000	230	5000	ug/l		6020	11/19/14	5
Chromium	5.5	0.54	1.0	ug/l	B	6020	11/19/14	1
Iron	U	50.	100	ug/l		6020	11/19/14	1
Lead	2.3	0.24	2.0	ug/l	B	6020	11/19/14	1
Manganese	45.	0.25	5.0	ug/l		6020	11/19/14	1
Potassium	3200	37.	1000	ug/l		6020	11/19/14	1
Selenium	1.2	0.38	2.0	ug/l	J	6020	11/19/14	1
Sodium	110000	550	5000	ug/l		6020	11/19/14	5
Volatile Organics								
Acetone	U	50.	250	ug/l		8260B	11/20/14	5
Benzene	410	1.6	5.0	ug/l		8260B	11/20/14	5
Bromodichloromethane	U	1.9	5.0	ug/l		8260B	11/20/14	5
Bromoform	U	2.3	5.0	ug/l		8260B	11/20/14	5
Bromomethane	U	4.3	25.	ug/l	J4	8260B	11/20/14	5
n-Butylbenzene	2.7	1.8	5.0	ug/l	J	8260B	11/20/14	5
sec-Butylbenzene	5.1	1.8	5.0	ug/l		8260B	11/20/14	5
Carbon disulfide	14.	1.4	5.0	ug/l		8260B	11/20/14	5
Carbon tetrachloride	U	1.9	5.0	ug/l		8260B	11/20/14	5
Chlorobenzene	U	1.7	5.0	ug/l		8260B	11/20/14	5
Chlorodibromomethane	U	1.6	5.0	ug/l		8260B	11/20/14	5
Chloroethane	U	2.3	25.	ug/l		8260B	11/20/14	5
Chloroform	U	1.6	25.	ug/l		8260B	11/20/14	5
Chloromethane	U	1.4	13.	ug/l		8260B	11/20/14	5
1,2-Dibromoethane	U	1.9	5.0	ug/l		8260B	11/20/14	5
1,1-Dichloroethane	U	1.3	5.0	ug/l		8260B	11/20/14	5
1,2-Dichloroethane	U	1.8	5.0	ug/l		8260B	11/20/14	5
1,1-Dichloroethene	U	2.0	5.0	ug/l		8260B	11/20/14	5
cis-1,2-Dichloroethene	U	1.3	5.0	ug/l		8260B	11/20/14	5
trans-1,2-Dichloroethene	U	2.0	5.0	ug/l		8260B	11/20/14	5
1,2-Dichloropropane	U	1.5	5.0	ug/l		8260B	11/20/14	5
cis-1,3-Dichloropropene	U	2.1	5.0	ug/l		8260B	11/20/14	5
trans-1,3-Dichloropropene	U	2.1	5.0	ug/l		8260B	11/20/14	5

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-108
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 11:50

ESC Sample # : L733743-81
 Site ID : NCL
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Ethylbenzene	5.6	1.9	5.0	ug/l		8260B	11/20/14	5
Isopropylbenzene	24.	1.6	5.0	ug/l		8260B	11/20/14	5
p-Isopropyltoluene	2.8	1.8	5.0	ug/l	J	8260B	11/20/14	5
2-Butanone (MEK)	U	20.	50.	ug/l		8260B	11/20/14	5
2-Hexanone	U	19.	50.	ug/l		8260B	11/20/14	5
Methylene Chloride	U	5.0	25.	ug/l		8260B	11/20/14	5
4-Methyl-2-pentanone (MIBK)	U	11.	50.	ug/l		8260B	11/20/14	5
Methyl tert-butyl ether	U	1.8	5.0	ug/l		8260B	11/20/14	5
Naphthalene	12.	5.0	25.	ug/l	J	8260B	11/20/14	5
n-Propylbenzene	25.	1.7	5.0	ug/l		8260B	11/20/14	5
Styrene	U	1.5	5.0	ug/l		8260B	11/20/14	5
1,1,1,2-Tetrachloroethane	U	1.9	5.0	ug/l		8260B	11/20/14	5
1,1,2,2-Tetrachloroethane	U	0.65	5.0	ug/l		8260B	11/20/14	5
Tetrachloroethene	U	1.9	5.0	ug/l		8260B	11/20/14	5
Toluene	7.8	3.9	25.	ug/l	J	8260B	11/20/14	5
1,1,1-Trichloroethane	U	1.6	5.0	ug/l		8260B	11/20/14	5
1,1,2-Trichloroethane	U	1.9	5.0	ug/l		8260B	11/20/14	5
Trichloroethene	U	2.0	5.0	ug/l		8260B	11/20/14	5
1,2,4-Trimethylbenzene	39.	1.9	5.0	ug/l		8260B	11/20/14	5
1,3,5-Trimethylbenzene	4.6	1.9	5.0	ug/l	J	8260B	11/20/14	5
Vinyl chloride	U	1.3	5.0	ug/l		8260B	11/20/14	5
o-Xylene	3.1	1.7	5.0	ug/l	J	8260B	11/20/14	5
m&p-Xylene	56.	3.6	10.	ug/l		8260B	11/20/14	5
Xylenes, Total	59.	5.3	15.	ug/l		8260B	11/20/14	5
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	11/20/14	1
Dibromofluoromethane	102.			% Rec.		8260B	11/20/14	1
4-Bromofluorobenzene	93.4			% Rec.		8260B	11/20/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	7700	440	2000	ug/l		8015	11/21/14	20
C28-C40 Oil Range	4300	240	2000	ug/l		8015	11/21/14	20
Surrogate Recovery								
o-Terphenyl	140.			% Rec.		8015	11/21/14	20

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : NCL-31
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 10:25

ESC Sample # : L733743-82
 Site ID : NCL
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	160000	5200	100000	ug/l		300.0	11/28/14	100
Fluoride	1400	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	1300000	7700	500000	ug/l		300.0	11/28/14	100
Nitrate-Nitrite	110	20.	100	ug/l		353.2	11/19/14	1
Dissolved Solids	2600000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	26.	0.25	2.0	ug/l		6020	11/19/14	1
Barium	21.	0.36	5.0	ug/l		6020	11/19/14	1
Calcium	380000	230	5000	ug/l		6020	11/19/14	5
Chromium	0.71	0.54	1.0	ug/l	JB	6020	11/19/14	1
Iron	950	50.	100	ug/l		6020	11/19/14	1
Lead	1.2	0.24	2.0	ug/l	JB	6020	11/19/14	1
Manganese	2000	0.25	5.0	ug/l		6020	11/19/14	1
Potassium	430	37.	1000	ug/l	J	6020	11/19/14	1
Selenium	0.59	0.38	2.0	ug/l	J	6020	11/19/14	1
Sodium	150000	550	5000	ug/l		6020	11/19/14	5
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/19/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/19/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/19/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
sec-Butylbenzene	2.0	0.36	1.0	ug/l		8260B	11/19/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/19/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/19/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/19/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/19/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/19/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/19/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/19/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/19/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : NCL-31
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 10:25

ESC Sample # : L733743-82
 Site ID : NCL
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/19/14	1
Isopropylbenzene	8.7	0.33	1.0	ug/l		8260B	11/19/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/19/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/19/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/19/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/19/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/19/14	1
Methyl tert-butyl ether	0.78	0.37	1.0	ug/l	J	8260B	11/19/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/19/14	1
n-Propylbenzene	0.41	0.35	1.0	ug/l	J	8260B	11/19/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/19/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/19/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/19/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/19/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/19/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/19/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/19/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/19/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/19/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/19/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/19/14	1
Surrogate Recovery								
Toluene-d8	105.			% Rec.		8260B	11/19/14	1
Dibromofluoromethane	99.2			% Rec.		8260B	11/19/14	1
4-Bromofluorobenzene	107.			% Rec.		8260B	11/19/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	2000	110	500	ug/l		8015	11/21/14	5
C28-C40 Oil Range	570	59.	500	ug/l		8015	11/21/14	5
Surrogate Recovery								
o-Terphenyl	119.			% Rec.		8015	11/21/14	5

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : NCL-32
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 13:10

ESC Sample # : L733743-83
 Site ID : NCL
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	460000	2600	50000	ug/l		300.0	11/28/14	50
Fluoride	4600	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	800000	3900	250000	ug/l		300.0	11/28/14	50
Nitrate-Nitrite	570	20.	100	ug/l		353.2	11/19/14	1
Dissolved Solids	2000000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	13.	0.25	2.0	ug/l		6020	11/19/14	1
Barium	200	0.36	5.0	ug/l		6020	11/19/14	1
Calcium	440000	230	5000	ug/l		6020	11/19/14	5
Chromium	8.4	0.54	1.0	ug/l	B	6020	11/19/14	1
Iron	1400	50.	100	ug/l		6020	11/19/14	1
Lead	7.6	0.24	2.0	ug/l	B	6020	11/19/14	1
Manganese	470	0.25	5.0	ug/l		6020	11/19/14	1
Potassium	19000	37.	1000	ug/l		6020	11/19/14	1
Selenium	0.44	0.38	2.0	ug/l	J	6020	11/19/14	1
Sodium	82000	110	1000	ug/l		6020	11/19/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/19/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/19/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/19/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/19/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/19/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/19/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/19/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/19/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/19/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/19/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/19/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

Sample ID : NCL-32

Collected By : SU/HMI Team
 Collection Date : 11/12/14 13:10

ESC Sample # : L733743-83

Site ID : NCL

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/19/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/19/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/19/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/19/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/19/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/19/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/19/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/19/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/19/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/19/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/19/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/19/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/19/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/19/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/19/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/19/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/19/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/19/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/19/14	1
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	11/19/14	1
Dibromofluoromethane	99.5			% Rec.		8260B	11/19/14	1
4-Bromofluorobenzene	106.			% Rec.		8260B	11/19/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	2300	220	1000	ug/l		8015	11/21/14	10
C28-C40 Oil Range	1900	120	1000	ug/l		8015	11/21/14	10
Surrogate Recovery								
o-Terphenyl	121.			% Rec.		8015	11/21/14	10

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : NCL-33
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 15:45

ESC Sample # : L733743-84
 Site ID : NCL
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	340000	520	10000	ug/l		300.0	11/28/14	10
Fluoride	2600	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	720000	770	50000	ug/l		300.0	11/28/14	10
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/19/14	1
Dissolved Solids	2100000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	1.9	0.25	2.0	ug/l	J	6020	11/19/14	1
Barium	32.	0.36	5.0	ug/l		6020	11/19/14	1
Calcium	450000	230	5000	ug/l		6020	11/19/14	5
Chromium	1.1	0.54	1.0	ug/l	B	6020	11/20/14	1
Iron	3600	50.	100	ug/l		6020	11/19/14	1
Lead	1.2	0.24	2.0	ug/l	JB	6020	11/19/14	1
Manganese	110	0.25	5.0	ug/l		6020	11/19/14	1
Potassium	5000	37.	1000	ug/l		6020	11/20/14	1
Selenium	0.67	0.38	2.0	ug/l	J	6020	11/19/14	1
Sodium	110000	550	5000	ug/l		6020	11/19/14	5
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/19/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/19/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/19/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/19/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/19/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/19/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/19/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/19/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/19/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/19/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/19/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : NCL-33
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 15:45

ESC Sample # : L733743-84
 Site ID : NCL
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/19/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/19/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/19/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/19/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/19/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/19/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/19/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/19/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/19/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/19/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/19/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/19/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/19/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/19/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/19/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/19/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/19/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/19/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/19/14	1
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	11/19/14	1
Dibromofluoromethane	100.			% Rec.		8260B	11/19/14	1
4-Bromofluorobenzene	109.			% Rec.		8260B	11/19/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	3700	22.	100	ug/l		8015	11/21/14	1
C28-C40 Oil Range	1400	12.	100	ug/l		8015	11/21/14	1
Surrogate Recovery								
o-Terphenyl	115.			% Rec.		8015	11/21/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : NCL-44
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 14:35

ESC Sample # : L733743-85
 Site ID : NCL
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	850000	5200	100000	ug/l		300.0	11/28/14	100
Fluoride	1800	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	450000	770	50000	ug/l		300.0	12/01/14	10
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/19/14	1
Dissolved Solids	1500000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	42.	0.25	2.0	ug/l		6020	11/19/14	1
Barium	31.	0.36	5.0	ug/l		6020	11/19/14	1
Calcium	290000	230	5000	ug/l		6020	11/19/14	5
Chromium	1.6	0.54	1.0	ug/l	B	6020	11/20/14	1
Iron	1200	50.	100	ug/l		6020	11/19/14	1
Lead	0.64	0.24	2.0	ug/l	JB	6020	11/19/14	1
Manganese	680	0.25	5.0	ug/l		6020	11/19/14	1
Potassium	2200	37.	1000	ug/l		6020	11/20/14	1
Selenium	0.65	0.38	2.0	ug/l	J	6020	11/19/14	1
Sodium	70000	110	1000	ug/l		6020	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/19/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/19/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/19/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
sec-Butylbenzene	0.48	0.36	1.0	ug/l	J	8260B	11/19/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/19/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/19/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/19/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/19/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/19/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/19/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/19/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/19/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : NCL-44
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 14:35

ESC Sample # : L733743-85
 Site ID : NCL
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/19/14	1
Isopropylbenzene	1.8	0.33	1.0	ug/l		8260B	11/19/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/19/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/19/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/19/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/19/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/19/14	1
Methyl tert-butyl ether	0.58	0.37	1.0	ug/l	J	8260B	11/19/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/19/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/19/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/19/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/19/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/19/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/19/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/19/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/19/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/19/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/19/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/19/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/19/14	1
Surrogate Recovery								
Toluene-d8	105.			% Rec.		8260B	11/19/14	1
Dibromofluoromethane	99.4			% Rec.		8260B	11/19/14	1
4-Bromofluorobenzene	110.			% Rec.		8260B	11/19/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	3900	110	500	ug/l		8015	11/20/14	5
C28-C40 Oil Range	1400	59.	500	ug/l		8015	11/20/14	5
Surrogate Recovery								
o-Terphenyl	127.			% Rec.		8015	11/20/14	5

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : NCL-49
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 12:15

ESC Sample # : L733743-86
 Site ID : NCL
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	98000	52.	1000	ug/l		300.0	11/23/14	1
Fluoride	650	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	1500000	7700	500000	ug/l		300.0	11/28/14	100
Nitrate-Nitrite	4300	20.	100	ug/l		353.2	11/19/14	1
Dissolved Solids	2600000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	1.4	0.25	2.0	ug/l	J	6020	11/19/14	1
Barium	12.	0.36	5.0	ug/l		6020	11/19/14	1
Calcium	440000	230	5000	ug/l		6020	11/19/14	5
Chromium	0.72	0.54	1.0	ug/l	JB	6020	11/20/14	1
Iron	U	50.	100	ug/l		6020	11/19/14	1
Lead	0.57	0.24	2.0	ug/l	JB	6020	11/19/14	1
Manganese	1.1	0.25	5.0	ug/l	J	6020	11/19/14	1
Potassium	720	37.	1000	ug/l	J	6020	11/20/14	1
Selenium	3.2	0.38	2.0	ug/l		6020	11/19/14	1
Sodium	120000	550	5000	ug/l		6020	11/19/14	5
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/19/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/19/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/19/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/19/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/19/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/19/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/19/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/19/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/19/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/19/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/19/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : NCL-49
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 12:15

ESC Sample # : L733743-86

Site ID : NCL

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/19/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/19/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/19/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/19/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/19/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/19/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/19/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/19/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/19/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/19/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/19/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/19/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/19/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/19/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/19/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/19/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/19/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/19/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/19/14	1
Surrogate Recovery								
Toluene-d8	105.			% Rec.		8260B	11/19/14	1
Dibromofluoromethane	99.0			% Rec.		8260B	11/19/14	1
4-Bromofluorobenzene	107.			% Rec.		8260B	11/19/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	42.	22.	100	ug/l	J	8015	11/18/14	1
C28-C40 Oil Range	65.	12.	100	ug/l	J	8015	11/18/14	1
Surrogate Recovery								
o-Terphenyl	113.			% Rec.		8015	11/18/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-87

Sample ID : DUP-NCL-01

Site ID : NCL (QA/QC)

Collected By : SU/HMI Team
 Collection Date : 11/13/14 14:20

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	98000	52.	1000	ug/l		300.0	11/23/14	1
Fluoride	590	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	1700000	3900	250000	ug/l		300.0	11/23/14	50
Nitrate-Nitrite	4500	20.	100	ug/l		353.2	11/19/14	1
Dissolved Solids	2600000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	1.6	0.25	2.0	ug/l	J	6020	11/19/14	1
Barium	11.	0.36	5.0	ug/l		6020	11/19/14	1
Calcium	430000	230	5000	ug/l		6020	11/19/14	5
Chromium	0.86	0.54	1.0	ug/l	JB	6020	11/20/14	1
Iron	U	50.	100	ug/l		6020	11/19/14	1
Lead	0.67	0.24	2.0	ug/l	JB	6020	11/19/14	1
Manganese	1.5	0.25	5.0	ug/l	J	6020	11/19/14	1
Potassium	750	37.	1000	ug/l	J	6020	11/20/14	1
Selenium	2.6	0.38	2.0	ug/l		6020	11/19/14	1
Sodium	120000	550	5000	ug/l		6020	11/19/14	5
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/22/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/22/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/22/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/22/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/22/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/22/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/22/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/22/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/22/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/22/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/22/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/22/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/22/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/22/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/22/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/22/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43

Page 180 of 361



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-87

Sample ID : DUP-NCL-01

Site ID : NCL (QA/QC)

Collected By : SU/HMI Team
 Collection Date : 11/13/14 14:20

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/22/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/22/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/22/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/22/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/22/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/22/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/22/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/22/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/22/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/22/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/22/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/22/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/22/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/22/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/22/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/22/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/22/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/22/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/22/14	1
Surrogate Recovery								
Toluene-d8	100.			% Rec.		8260B	11/22/14	1
Dibromofluoromethane	94.8			% Rec.		8260B	11/22/14	1
4-Bromofluorobenzene	105.			% Rec.		8260B	11/22/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	28.	22.	100	ug/l	J	8015	11/18/14	1
C28-C40 Oil Range	34.	12.	100	ug/l	J	8015	11/18/14	1
Surrogate Recovery								
o-Terphenyl	117.			% Rec.		8015	11/18/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : EB-NCL-01
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 13:10

ESC Sample # : L733743-88
 Site ID : NCL (QA/QC)
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	2700	52.	1000	ug/l		300.0	11/23/14	1
Fluoride	U	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	2100	77.	5000	ug/l	J	300.0	11/23/14	1
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/19/14	1
Dissolved Solids	14000	2800	10000	ug/l	T4	2540 C-	11/19/14	1
Arsenic	0.40	0.25	2.0	ug/l	J	6020	11/19/14	1
Barium	3.5	0.36	5.0	ug/l	J	6020	11/19/14	1
Calcium	1800	46.	1000	ug/l		6020	11/20/14	1
Chromium	1.0	0.54	1.0	ug/l	B	6020	11/20/14	1
Iron	U	50.	100	ug/l		6020	11/19/14	1
Lead	1.2	0.24	2.0	ug/l	JB	6020	11/19/14	1
Manganese	0.62	0.25	5.0	ug/l	J	6020	11/19/14	1
Potassium	110	37.	1000	ug/l	J	6020	11/20/14	1
Selenium	U	0.38	2.0	ug/l		6020	11/19/14	1
Sodium	2100	110	1000	ug/l		6020	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/22/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/22/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/22/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/22/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/22/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/22/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/22/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/22/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/22/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/22/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/22/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/22/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/22/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/22/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/22/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-88

Sample ID : EB-NCL-01

Site ID : NCL (QA/QC)

Collected By : SU/HMI Team
 Collection Date : 11/12/14 13:10

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/22/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/22/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/22/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/22/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/22/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/22/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/22/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/22/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/22/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/22/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/22/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/22/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/22/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/22/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/22/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/22/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/22/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/22/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/22/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/22/14	1
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	11/22/14	1
Dibromofluoromethane	96.1			% Rec.		8260B	11/22/14	1
4-Bromofluorobenzene	102.			% Rec.		8260B	11/22/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	640	110	500	ug/l		8015	11/21/14	5
C28-C40 Oil Range	130	59.	500	ug/l	J	8015	11/21/14	5
Surrogate Recovery								
o-Terphenyl	553.			% Rec.	J1	8015	11/21/14	5

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-89

Sample ID : TRIP BLANK-NCL-01

Site ID : NCL (QA/QC)

Collected By : SU/HMI Team
 Collection Date : 11/12/14 00:00

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/22/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/22/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/22/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/22/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/22/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/22/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/22/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/22/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/22/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/22/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/22/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/22/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/22/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/22/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/22/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/22/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/22/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/22/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/22/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/22/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/22/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/22/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/22/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/22/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/22/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/22/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/22/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/22/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/22/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/22/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : TRIP BLANK-NCL-01
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 00:00

ESC Sample # : L733743-89
 Site ID : NCL (QA/QC)
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/22/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/22/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/22/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/22/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/22/14	1
Surrogate Recovery								
Toluene-d8		99.6		%	Rec.	8260B	11/22/14	1
Dibromofluoromethane		95.6		%	Rec.	8260B	11/22/14	1
4-Bromofluorobenzene		103.		%	Rec.	8260B	11/22/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : NCL-34A
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 10:30

ESC Sample # : L733743-90
 Site ID : NCL
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	180000	520	10000	ug/l		300.0	11/23/14	10
Fluoride	1400	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	100000	770	50000	ug/l		300.0	11/23/14	10
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/19/14	1
Dissolved Solids	1200000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	0.42	0.25	2.0	ug/l	J	6020	11/19/14	1
Barium	260	0.36	5.0	ug/l		6020	11/19/14	1
Calcium	250000	230	5000	ug/l		6020	11/19/14	5
Chromium	0.78	0.54	1.0	ug/l	JB	6020	11/20/14	1
Iron	U	50.	100	ug/l		6020	11/19/14	1
Lead	0.66	0.24	2.0	ug/l	JB	6020	11/19/14	1
Manganese	53.	0.25	5.0	ug/l		6020	11/19/14	1
Potassium	860	37.	1000	ug/l	J	6020	11/20/14	1
Selenium	U	0.38	2.0	ug/l		6020	11/19/14	1
Sodium	120000	550	5000	ug/l		6020	11/19/14	5
Volatile Organics								
Acetone	U	50.	250	ug/l		8260B	11/22/14	5
Benzene	270	1.6	5.0	ug/l		8260B	11/22/14	5
Bromodichloromethane	U	1.9	5.0	ug/l		8260B	11/22/14	5
Bromoform	U	2.3	5.0	ug/l		8260B	11/22/14	5
Bromomethane	U	4.3	25.	ug/l		8260B	11/22/14	5
n-Butylbenzene	6.6	1.8	5.0	ug/l		8260B	11/22/14	5
sec-Butylbenzene	17.	1.8	5.0	ug/l		8260B	11/22/14	5
Carbon disulfide	U	1.4	5.0	ug/l		8260B	11/22/14	5
Carbon tetrachloride	U	1.9	5.0	ug/l		8260B	11/22/14	5
Chlorobenzene	U	1.7	5.0	ug/l		8260B	11/22/14	5
Chlorodibromomethane	U	1.6	5.0	ug/l		8260B	11/22/14	5
Chloroethane	U	2.3	25.	ug/l		8260B	11/22/14	5
Chloroform	U	1.6	25.	ug/l		8260B	11/22/14	5
Chloromethane	U	1.4	13.	ug/l		8260B	11/22/14	5
1,2-Dibromoethane	U	1.9	5.0	ug/l		8260B	11/22/14	5
1,1-Dichloroethane	U	1.3	5.0	ug/l		8260B	11/22/14	5
1,2-Dichloroethane	U	1.8	5.0	ug/l		8260B	11/22/14	5
1,1-Dichloroethene	U	2.0	5.0	ug/l		8260B	11/22/14	5
cis-1,2-Dichloroethene	U	1.3	5.0	ug/l		8260B	11/22/14	5
trans-1,2-Dichloroethene	U	2.0	5.0	ug/l		8260B	11/22/14	5
1,2-Dichloropropane	U	1.5	5.0	ug/l		8260B	11/22/14	5
cis-1,3-Dichloropropene	U	2.1	5.0	ug/l		8260B	11/22/14	5
trans-1,3-Dichloropropene	U	2.1	5.0	ug/l		8260B	11/22/14	5

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-90

Sample ID : NCL-34A

Site ID : NCL

Collected By : SU/HMI Team
 Collection Date : 11/13/14 10:30

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Ethylbenzene	4.8	1.9	5.0	ug/l	J	8260B	11/22/14	5
Isopropylbenzene	91.	1.6	5.0	ug/l		8260B	11/22/14	5
p-Isopropyltoluene	8.2	1.8	5.0	ug/l		8260B	11/22/14	5
2-Butanone (MEK)	U	20.	50.	ug/l		8260B	11/22/14	5
2-Hexanone	U	19.	50.	ug/l		8260B	11/22/14	5
Methylene Chloride	U	5.0	25.	ug/l		8260B	11/22/14	5
4-Methyl-2-pentanone (MIBK)	U	11.	50.	ug/l		8260B	11/22/14	5
Methyl tert-butyl ether	U	1.8	5.0	ug/l		8260B	11/22/14	5
Naphthalene	U	5.0	25.	ug/l		8260B	11/22/14	5
n-Propylbenzene	91.	1.7	5.0	ug/l		8260B	11/22/14	5
Styrene	U	1.5	5.0	ug/l		8260B	11/22/14	5
1,1,1,2-Tetrachloroethane	U	1.9	5.0	ug/l		8260B	11/22/14	5
1,1,2,2-Tetrachloroethane	U	0.65	5.0	ug/l		8260B	11/22/14	5
Tetrachloroethene	U	1.9	5.0	ug/l		8260B	11/22/14	5
Toluene	U	3.9	25.	ug/l		8260B	11/22/14	5
1,1,1-Trichloroethane	U	1.6	5.0	ug/l		8260B	11/22/14	5
1,1,2-Trichloroethane	U	1.9	5.0	ug/l		8260B	11/22/14	5
Trichloroethene	U	2.0	5.0	ug/l		8260B	11/22/14	5
1,2,4-Trimethylbenzene	110	1.9	5.0	ug/l		8260B	11/22/14	5
1,3,5-Trimethylbenzene	U	1.9	5.0	ug/l		8260B	11/22/14	5
Vinyl chloride	U	1.3	5.0	ug/l		8260B	11/22/14	5
o-Xylene	U	1.7	5.0	ug/l		8260B	11/22/14	5
m&p-Xylene	100	3.6	10.	ug/l		8260B	11/22/14	5
Xylenes, Total	100	5.3	15.	ug/l		8260B	11/22/14	5
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	11/22/14	1
Dibromofluoromethane	94.5			% Rec.		8260B	11/22/14	1
4-Bromofluorobenzene	103.			% Rec.		8260B	11/22/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	5300	22.	100	ug/l		8015	11/18/14	1
C28-C40 Oil Range	1100	12.	100	ug/l		8015	11/18/14	1
Surrogate Recovery								
o-Terphenyl	123.			% Rec.		8015	11/18/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:43

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier	
L733743-71	WG755736	SAMP	Xylenes, Total	R3005627	J	
	WG754944	SAMP	TPH (GC/FID) Low Fraction	R3005681	J	
	WG755208	SAMP	Selenium	R3005302	J	
	WG755736	SAMP	Bromomethane	R3005627	J4	
	WG755736	SAMP	n-Butylbenzene	R3005627	J	
	WG755736	SAMP	sec-Butylbenzene	R3005627	J	
	WG755736	SAMP	Ethylbenzene	R3005627	J	
	WG755736	SAMP	p-Isopropyltoluene	R3005627	J	
	WG755736	SAMP	Naphthalene	R3005627	J	
	WG755736	SAMP	Toluene	R3005627	J	
L733743-72	WG755208	SAMP	Arsenic	R3005302	J	
	WG755208	SAMP	Iron	R3005302	J	
	WG755736	SAMP	Bromomethane	R3005627	J4	
	WG755736	SAMP	Ethylbenzene	R3005627	J	
	WG755736	SAMP	p-Isopropyltoluene	R3005627	J	
	WG755736	SAMP	Naphthalene	R3005627	J	
	WG755736	SAMP	Toluene	R3005627	J	
	L733743-73	WG755209	SAMP	Calcium	R3005553	OlV
		WG755209	SAMP	Chromium	R3005553	B
		WG755209	SAMP	Iron	R3005553	J
WG755209		SAMP	Lead	R3005553	B	
WG755209		SAMP	Potassium	R3005553	J	
WG755209		SAMP	Sodium	R3005553	OlV	
WG755736		SAMP	Bromomethane	R3005627	J4	
WG755736		SAMP	sec-Butylbenzene	R3005627	J	
L733743-74		WG755736	SAMP	Ethylbenzene	R3005627	J
		WG755209	SAMP	Chromium	R3005553	B
	WG755209	SAMP	Lead	R3005553	B	
	WG755209	SAMP	Potassium	R3005553	J	
	WG755736	SAMP	Bromomethane	R3005627	J4	
	WG755736	SAMP	sec-Butylbenzene	R3005627	J	
	WG755736	SAMP	Ethylbenzene	R3005627	J	
	L733743-75	WG755118	SAMP	C10-C28 Diesel Range	R3005752	J
		WG755118	SAMP	C28-C40 Oil Range	R3005752	J
		WG755463	SAMP	Chloride	R3005534	J
WG755463		SAMP	Sulfate	R3005534	J	
WG756114		SAMP	Dissolved Solids	R3006022	QT4	
WG755209		SAMP	Barium	R3005553	J	
WG755209		SAMP	Calcium	R3005553	J	
WG755209		SAMP	Chromium	R3005553	JB	
WG755209		SAMP	Lead	R3005553	JB	
WG755209		SAMP	Sodium	R3005553	J	
L733743-77	WG754915	SAMP	Methylene Chloride	R3005557	J	
	WG755118	SAMP	C28-C40 Oil Range	R3005752	J	
	WG755209	SAMP	Chromium	R3005553	B	
	WG755209	SAMP	Lead	R3005553	B	
	WG755209	SAMP	Selenium	R3005553	J	
	WG755209	SAMP	Vanadium	R3005553	J	
L733743-78	WG755209	SAMP	Chromium	R3005553	JB	
	WG755209	SAMP	Iron	R3005553	J	
	WG755209	SAMP	Lead	R3005553	JB	
	WG755209	SAMP	Potassium	R3005553	J	
	WG755260	SAMP	Nitrate-Nitrite	R3005196	J3	
	WG754915	SAMP	sec-Butylbenzene	R3005557	J	
L733743-79	WG755121	SAMP	C28-C40 Oil Range	R3005267	J	
	WG755209	SAMP	Chromium	R3005553	B	
	WG755209	SAMP	Iron	R3005553	J	
	WG755209	SAMP	Lead	R3005553	JB	
	WG755209	SAMP	Potassium	R3005553	J	
	WG755260	SAMP	Nitrate-Nitrite	R3005196	J6	
L733743-80	WG754915	SAMP	Methyl tert-butyl ether	R3005557	J	
	WG755118	SAMP	C28-C40 Oil Range	R3005752	J	
	WG755209	SAMP	Chromium	R3005553	JB	
	WG755209	SAMP	Iron	R3005553	J	
L733743-81	WG755209	SAMP	Lead	R3005553	JB	
	WG755209	SAMP	Chromium	R3005553	B	
	WG755209	SAMP	Lead	R3005553	B	
	WG755209	SAMP	Selenium	R3005553	J	
	WG755736	SAMP	Bromomethane	R3005627	J4	
	WG755736	SAMP	n-Butylbenzene	R3005627	J	

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
	WG755736	SAMP	p-Isopropyltoluene	R3005627	J
	WG755736	SAMP	Naphthalene	R3005627	J
	WG755736	SAMP	Toluene	R3005627	J
	WG755736	SAMP	1,3,5-Trimethylbenzene	R3005627	J
	WG755736	SAMP	o-Xylene	R3005627	J
L733743-82	WG755209	SAMP	Chromium	R3005553	JB
	WG755209	SAMP	Lead	R3005553	JB
	WG755209	SAMP	Potassium	R3005553	J
	WG755209	SAMP	Selenium	R3005553	J
	WG754915	SAMP	Methyl tert-butyl ether	R3005557	J
L733743-83	WG754915	SAMP	n-Propylbenzene	R3005557	J
	WG755209	SAMP	Chromium	R3005553	B
	WG755209	SAMP	Lead	R3005553	B
L733743-84	WG755209	SAMP	Selenium	R3005553	J
	WG755209	SAMP	Arsenic	R3005553	J
	WG755209	SAMP	Chromium	R3005672	B
	WG755209	SAMP	Lead	R3005553	JB
L733743-85	WG755209	SAMP	Selenium	R3005553	J
	WG755209	SAMP	Chromium	R3005672	B
	WG755209	SAMP	Lead	R3005553	JB
	WG755209	SAMP	Selenium	R3005553	J
	WG754915	SAMP	sec-Butylbenzene	R3005557	J
L733743-86	WG754915	SAMP	Methyl tert-butyl ether	R3005557	J
	WG755121	SAMP	C10-C28 Diesel Range	R3005267	J
	WG755121	SAMP	C28-C40 Oil Range	R3005267	J
	WG755209	SAMP	Arsenic	R3005553	J
	WG755209	SAMP	Chromium	R3005672	JB
	WG755209	SAMP	Lead	R3005553	JB
	WG755209	SAMP	Manganese	R3005553	J
L733743-87	WG755209	SAMP	Potassium	R3005672	J
	WG755121	SAMP	C10-C28 Diesel Range	R3005267	J
	WG755121	SAMP	C28-C40 Oil Range	R3005267	J
	WG755209	SAMP	Chromium	R3005672	JB
	WG755209	SAMP	Lead	R3005553	JB
	WG755209	SAMP	Manganese	R3005553	J
L733743-88	WG755209	SAMP	Potassium	R3005672	J
	WG755118	SAMP	C28-C40 Oil Range	R3005752	J
	WG755118	SAMP	o-Terphenyl	R3005752	J1
	WG755139	SAMP	Dissolved Solids	R3005403	T4
	WG755209	SAMP	Arsenic	R3005553	J
	WG755209	SAMP	Barium	R3005553	J
	WG755209	SAMP	Chromium	R3005672	B
	WG755209	SAMP	Lead	R3005553	JB
	WG755209	SAMP	Manganese	R3005553	J
L733743-90	WG755209	SAMP	Potassium	R3005672	J
	WG755981	SAMP	Sulfate	R3006416	J
	WG755209	SAMP	Arsenic	R3005553	J
	WG755209	SAMP	Chromium	R3005672	JB
	WG755209	SAMP	Lead	R3005553	JB
	WG755209	SAMP	Potassium	R3005672	J
L733743-91	WG754916	SAMP	Ethylbenzene	R3006052	J
	WG755118	SAMP	C10-C28 Diesel Range	R3005752	J
	WG755209	SAMP	Chromium	R3005672	JB
	WG755209	SAMP	Lead	R3005553	JB
	WG755209	SAMP	Potassium	R3005672	J
L733743-92	WG755209	SAMP	Selenium	R3005553	J
	WG755118	SAMP	C28-C40 Oil Range	R3005752	J
	WG755209	SAMP	Chromium	R3005672	JB
	WG755209	SAMP	Lead	R3005553	JB
	WG755209	SAMP	Potassium	R3005672	J
	WG755209	SAMP	Selenium	R3005553	J
	WG754916	SAMP	n-Butylbenzene	R3006052	J
	WG754916	SAMP	sec-Butylbenzene	R3006052	J
	WG754916	SAMP	p-Isopropyltoluene	R3006052	J
	WG754916	SAMP	Naphthalene	R3006052	J
L733743-93	WG754916	SAMP	1,3,5-Trimethylbenzene	R3006052	J
	WG755121	SAMP	C28-C40 Oil Range	R3005267	J
	WG755209	SAMP	Chromium	R3005672	JB
	WG755209	SAMP	Lead	R3005553	B
	WG755209	SAMP	Potassium	R3005672	J

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
B	(EPA) - The indicated compound was found in the associated method blank as well as the laboratory sample.
E	GTL (EPA) - Greater than upper calibration limit: Actual value is known to be greater than the upper calibration range.
J	(EPA) - Estimated value below the lowest calibration point. Confidence correlates with concentration.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
O1	(ESC) The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
Q	(ESC) Sample held beyond the accepted holding time.
T4	(ESC) - Additional method/sample information: QNS - Quantity Not Sufficient
V	(ESC) - Additional QC Info: The sample concentration is too high to evaluate accurate spike recoveries.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

- Accuracy** - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision** - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate** - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC** - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds,

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
-----------	---------

or surrogates.

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Anions by Method 9056MOD		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755279
Analysis Date:	11/22/2014 8:01:00 AM	Analyst:	577
Instrument ID:	IC-10		
Sample Numbers:	L733743-01, -02		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)						
Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.244	98	90 - 110	
Fluoride	1	8	8.2607	103	90 - 110	
Sulfate	1	40	40.293	101	90 - 110	

Laboratory Control Sample Duplicate (LCSD)						
Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.199	98	90 - 110	
Fluoride	1	8	8.23	103	90 - 110	
Sulfate	1	40	40.086	100	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate										
Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Chloride	1	40	39.244	98	39.199	98	90 - 110	0	20	
Fluoride	1	8	8.2607	103	8.23	103	90 - 110	0	20	
Sulfate	1	40	40.293	101	40.086	100	90 - 110	1	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 9056MOD		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755284
Analysis Date:	11/22/2014 9:34:00 AM	Analyst:	236
Instrument ID:	IC-5		
Sample Numbers:	L733743-03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -66, -67, -69, -70, -71, -72, -73		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	0.161	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	0.269	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.368	98	90 - 110	
Fluoride	1	8	8.2359	103	90 - 110	
Sulfate	1	40	40.125	100	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.294	98	90 - 110	
Fluoride	1	8	8.2141	103	90 - 110	
Sulfate	1	40	40.046	100	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Qual	Control RPD	Qual
Chloride	1	40	39.368	98	39.294	98	90 - 110	0		20	
Fluoride	1	8	8.2359	103	8.2141	103	90 - 110	0		20	
Sulfate	1	40	40.125	100	40.046	100	90 - 110	0		20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 9056MOD		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755463
Analysis Date:	11/20/2014 2:06:00 AM	Analyst:	577
Instrument ID:	IC-8		
Sample Numbers:	L733743-56, -74, -75, -100, -101, -102		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.350	98	90 - 110	
Fluoride	1	8	8.1881	102	90 - 110	
Sulfate	1	40	40.245	101	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.318	98	90 - 110	
Fluoride	1	8	8.204	103	90 - 110	
Sulfate	1	40	40.258	101	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Qual	% RPD	Control RPD Limits	Qual
Chloride	1	40	39.350	98	39.318	98	90 - 110	98	0	20	20	
Fluoride	1	8	8.1881	102	8.204	103	90 - 110	103	0	20	20	
Sulfate	1	40	40.245	101	40.258	101	90 - 110	101	0	20	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755572
Analysis Date:	11/21/2014 7:01:00 PM	Analyst:	577
Instrument ID:	IC-5		
Sample Numbers:	L733743-103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	0.158	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.429	99	90 - 110	
Fluoride	1	8	8.2969	104	90 - 110	
Sulfate	1	40	40.242	101	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.390	98	90 - 110	
Fluoride	1	8	8.3157	104	90 - 110	
Sulfate	1	40	40.279	101	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Qual	% RPD	Control RPD Limits	Qual
Chloride	1	40	39.429	99	39.390	98	90 - 110	99		0	20	
Fluoride	1	8	8.2969	104	8.3157	104	90 - 110	104		0	20	
Sulfate	1	40	40.242	101	40.279	101	90 - 110	101		0	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755573
Collection Date:	11/11/2014	Analyst:	577
Analysis Date:	11/22/2014 1:53:00 AM		
Instrument ID:	IC-8		
Sample Numbers:	L733743-123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.351	98	90 - 110	
Fluoride	1	8	8.2295	103	90 - 110	
Sulfate	1	40	40.729	102	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.292	98	90 - 110	
Fluoride	1	8	8.2219	103	90 - 110	
Sulfate	1	40	40.703	102	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Qual	Control RPD	Qual
Chloride	1	40	39.351	98	39.292	98	90 - 110	0		20	
Fluoride	1	8	8.2295	103	8.2219	103	90 - 110	0		20	
Sulfate	1	40	40.729	102	40.703	102	90 - 110	0		20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755977
Collection Date:	11/11/2014	Analyst:	236
Analysis Date:	11/22/2014 10:35:00 PM		
Instrument ID:	IC-9		
Sample Numbers:	L733743-25, -26, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158, -159, -		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.265	98	90 - 110	
Fluoride	1	8	7.9391	99	90 - 110	
Sulfate	1	40	39.996	100	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.172	98	90 - 110	
Fluoride	1	8	7.9189	99	90 - 110	
Sulfate	1	40	39.829	100	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Chloride	1	40	39.265	98	39.172	98	90 - 110	0	20	
Fluoride	1	8	7.9391	99	7.9189	99	90 - 110	0	20	
Sulfate	1	40	39.996	100	39.829	100	90 - 110	0	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755979
Analysis Date:	11/22/2014 8:49:00 PM	Analyst:	236
Instrument ID:	IC-8		
Sample Numbers:	L733743-27, -28, -29, -30, -31, -32, -34, -35, -36, -37, -38, -39, -40, -43, -44, -45, -46, -47, -48, -52		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.440	99	90 - 110	
Fluoride	1	8	8.1724	102	90 - 110	
Sulfate	1	40	40.561	101	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.458	99	90 - 110	
Fluoride	1	8	8.2033	103	90 - 110	
Sulfate	1	40	40.661	102	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Qual	Control RPD	Qual
Chloride	1	40	39.440	99	39.458	99	90 - 110	0		20	
Fluoride	1	8	8.1724	102	8.2033	103	90 - 110	0		20	
Sulfate	1	40	40.561	101	40.661	102	90 - 110	0		20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755980
Analysis Date:	11/23/2014 10:38:00 AM	Analyst:	183
Instrument ID:	IC-5		
Sample Numbers:	L733743-53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	0.157	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.259	98	90 - 110	
Fluoride	1	8	8.1958	102	90 - 110	
Sulfate	1	40	39.812	100	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.185	98	90 - 110	
Fluoride	1	8	8.217	103	90 - 110	
Sulfate	1	40	39.777	99	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Qual	% RPD	Control RPD Limits	Qual
Chloride	1	40	39.259	98	39.185	98	90 - 110	98	0	20	20	
Fluoride	1	8	8.1958	102	8.217	103	90 - 110	103	0	20	20	
Sulfate	1	40	39.812	100	39.777	99	90 - 110	99	0	20	20	

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755981
Analysis Date:	11/23/2014 12:22:00 PM	Analyst:	236
Instrument ID:	IC-9		
Sample Numbers:	L733743-87, -88, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	0.286	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)						
Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.325	98	90 - 110	
Fluoride	1	8	8.1434	102	90 - 110	
Sulfate	1	40	39.463	99	90 - 110	

Laboratory Control Sample Duplicate (LCSD)						
Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.054	98	90 - 110	
Fluoride	1	8	8.0158	100	90 - 110	
Sulfate	1	40	39.542	99	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate										
Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Chloride	1	40	39.325	98	39.054	98	90 - 110	98	1	20
Fluoride	1	8	8.1434	102	8.0158	100	90 - 110	100	2	20
Sulfate	1	40	39.463	99	39.542	99	90 - 110	99	0	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756286
Analysis Date:	11/24/2014 2:28:00 AM	Analyst:	183
Instrument ID:	IC-8		
Sample Numbers:	L733743-28, -31, -40, -45, -108, -117, -119, -129, -138, -150		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.272	98	90 - 110	
Fluoride	1	8	8.1003	101	90 - 110	
Sulfate	1	40	40.161	100	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.131	98	90 - 110	
Fluoride	1	8	8.0925	101	90 - 110	
Sulfate	1	40	40.176	100	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Qual	% RPD	Control RPD Limits	Qual
Chloride	1	40	39.272	98	39.131	98	90 - 110	98	0	20		
Fluoride	1	8	8.1003	101	8.0925	101	90 - 110	101	0	20		
Sulfate	1	40	40.161	100	40.176	100	90 - 110	100	0	20		



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 9056MOD		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756784
Analysis Date:	12/2/2014 8:29:00 PM	Analyst:	577
Instrument ID:	IC-9		
Sample Numbers:	L733743-66, -69, -70, -71, -72, -73		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.232	98	90 - 110	
Fluoride	1	8	8.0041	100	90 - 110	
Sulfate	1	40	40.019	100	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.169	98	90 - 110	
Fluoride	1	8	8.0069	100	90 - 110	
Sulfate	1	40	39.998	100	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Chloride	1	40	39.232	98	39.169	98	90 - 110	0	20	
Fluoride	1	8	8.0041	100	8.0069	100	90 - 110	0	20	
Sulfate	1	40	40.019	100	39.998	100	90 - 110	0	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756800
Analysis Date:	11/26/2014 9:26:00 PM	Analyst:	577
Instrument ID:	IC-5		
Sample Numbers:	L733743-53, -54, -55, -57, -58, -59, -155		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	0.238	
Fluoride	16984-48-8	< 0.100	0.0400	
Sulfate	14808-79-8	< 5.00	0.378	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.234	98	90 - 110	
Fluoride	1	8	8.2733	103	90 - 110	
Sulfate	1	40	40.018	100	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.231	98	90 - 110	
Fluoride	1	8	8.2823	104	90 - 110	
Sulfate	1	40	39.977	100	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Chloride	1	40	39.234	98	39.231	98	90 - 110	0	20	
Fluoride	1	8	8.2733	103	8.2823	104	90 - 110	0	20	
Sulfate	1	40	40.018	100	39.977	100	90 - 110	0	20	

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG757012
Analysis Date:	11/28/2014 1:39:00 PM	Analyst:	577
Instrument ID:	IC-5		
Sample Numbers:	L733743-77, -78, -79, -80, -81, -82, -83, -84, -85, -86		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	0.235	
Fluoride	16984-48-8	< 0.100	0.0409	
Sulfate	14808-79-8	< 5.00	0.379	

Laboratory Control Sample (LCS)						
Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.554	99	90 - 110	
Fluoride	1	8	8.4009	105	90 - 110	
Sulfate	1	40	40.468	101	90 - 110	

Laboratory Control Sample Duplicate (LCSD)						
Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.280	98	90 - 110	
Fluoride	1	8	8.3117	104	90 - 110	
Sulfate	1	40	40.181	100	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate										
Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Chloride	1	40	39.554	99	39.280	98	90 - 110	1	20	
Fluoride	1	8	8.4009	105	8.3117	104	90 - 110	1	20	
Sulfate	1	40	40.468	101	40.181	100	90 - 110	1	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG757344
Collection Date:	11/11/2014	Analyst:	236
Analysis Date:	12/1/2014 3:05:00 PM		
Instrument ID:	IC-10		
Sample Numbers:	L733743-85		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.016	98	90 - 110	
Fluoride	1	8	8.1381	102	90 - 110	
Sulfate	1	40	39.885	100	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.007	98	90 - 110	
Fluoride	1	8	8.1458	102	90 - 110	
Sulfate	1	40	39.858	100	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Qual	Control RPD	Qual
Chloride	1	40	39.016	98	39.007	98	90 - 110	0	20		
Fluoride	1	8	8.1381	102	8.1458	102	90 - 110	0	20		
Sulfate	1	40	39.885	100	39.858	100	90 - 110	0	20		



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 9056MOD		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG758368
Analysis Date:	12/5/2014 1:40:00 PM	Analyst:	577
Instrument ID:	IC-10		
Sample Numbers:	L733743-67		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.133	98	90 - 110	
Fluoride	1	8	8.0783	101	90 - 110	
Sulfate	1	40	39.620	99	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.162	98	90 - 110	
Fluoride	1	8	8.1069	101	90 - 110	
Sulfate	1	40	39.785	99	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Qual	Control RPD	Qual
Chloride	1	40	39.133	98	39.162	98	90 - 110	98	0	20	
Fluoride	1	8	8.0783	101	8.1069	101	90 - 110	101	0	20	
Sulfate	1	40	39.620	99	39.785	99	90 - 110	99	0	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 9056MOD	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755279
Collection Date:	11/11/2014	Analyst:	577
Analysis Date:	11/22/2014 8:01:00 AM		
Instrument ID:	IC-10		
Sample Numbers:	L733743-01, -02		

Sample Duplicate

L732952-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	53.587	53.551	0	20	

Sample Duplicate

L733283-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	0.2328	0.2657	0	20	
Sulfate	1	0.2466	0.0849	0	20	

Matrix Spike / Matrix Spike Duplicate

L733584-02

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Fluoride	1	5	0.0554	5.0523	100	5.0463	100	80 - 120	0	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 9056MOD	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755284
Collection Date:	11/11/2014	Analyst:	236
Analysis Date:	11/22/2014 9:34:00 AM		
Instrument ID:	IC-5		
Sample Numbers:	L733743-03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -66, -67, -69, -70, -71, -72, -73		

Sample Duplicate

L733743-05

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	0.3203	0.1876	52	20	P1
Fluoride	1	<0.0099	<0.0099		20	
Sulfate	1	0.4482	0.2723	49	20	P1

Sample Duplicate

L733743-14

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	0.2632	0.1952	30	20	P1
Fluoride	1	<0.0099	<0.0099		20	
Sulfate	1	0.3062	0.2727	12	20	

Matrix Spike / Matrix Spike Duplicate

L733743-11

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	1	50	0.2912	49.289	98	49.774	99	80 - 120	1	20	
Fluoride	1	5	0.0	4.9441	99	4.935	99	80 - 120	0	20	
Sulfate	1	50	0.3646	49.393	98	49.588	98	80 - 120	0	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 9056MOD	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755463
Collection Date:	11/11/2014	Analyst:	577
Analysis Date:	11/20/2014 2:06:00 AM		
Instrument ID:	IC-8		
Sample Numbers:	L733743-56, -74, -75, -100, -101, -102		

Sample Duplicate

L732989-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Fluoride	1	0.6026	0.6265	4	20	

Sample Duplicate

L733018-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Fluoride	1	0.2725	0.2842	4	20	

Sample Duplicate

L733146-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Fluoride	1	0.7431	0.7454	0	20	

Sample Duplicate

L733046-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Fluoride	1	0.3701	0.3688	0	20	

Matrix Spike / Matrix Spike Duplicate

L733124-02

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Sulfate	5	10	105.69	345.67	96	344.99	96	80 - 120	0	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755572
Analysis Date:	11/21/2014 7:01:00 PM	Analyst:	577
Instrument ID:	IC-5		
Sample Numbers:	L733743-103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121		

Sample Duplicate

L733743-122

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	95.551	95.436	0	20	
Fluoride	1	2.9689	2.9631	0	20	
Sulfate	50	1980.8	1995.9	1	20	

Sample Duplicate

L733743-109

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	50	204.86	194.38	5	20	
Fluoride	1	3.141	3.0939	2	20	
Sulfate	50	1713.0	1645.6	4	20	

Matrix Spike / Matrix Spike Duplicate

L733743-113

Analyte	Dil	Spike		% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
		Value	Sample MS								
Chloride	1	50	53.764	99.938	92	99.277	91	80 - 120	1	20	
Fluoride	1	5	2.1014	6.879	96	6.5587	89	80 - 120	5	20	
Sulfate	10	5	712.33	1170.0	92	1171.3	92	80 - 120	0	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755573
Collection Date:	11/11/2014	Analyst:	577
Analysis Date:	11/22/2014 1:53:00 AM		
Instrument ID:	IC-8		
Sample Numbers:	L733743-123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141		

Sample Duplicate

L733743-133

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	100	1321.1	1304.5	1	20	
Fluoride	1	0.7767	0.7896	2	20	
Sulfate	100	2510.3	2533.1	1	20	

Sample Duplicate

L733743-124

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	49.161	49.051	0	20	
Fluoride	1	2.6573	2.6503	0	20	
Sulfate	50	2311.9	2247.0	3	20	

Matrix Spike / Matrix Spike Duplicate

L733743-123

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	50	1	159.21	2668.2	100	2616.8	98	80 - 120	2	20	
Fluoride	1	5	4.918	8.0736	63	8.0489	63	80 - 120	J6	0	20
Sulfate	50	1	2707.7	5022.3	93	4976.3	91	80 - 120	1	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755977
Analysis Date:	11/22/2014 10:35:00 PM	Analyst:	236
Instrument ID:	IC-9		
Sample Numbers:	L733743-25, -26, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158, -159, -		

Sample Duplicate

L733743-158

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	0.071	-0.059	2227	20	P1
Fluoride	1	<0.0099	<0.0099		20	
Sulfate	1	<0.0774	<0.0774		20	

Sample Duplicate

L733743-160

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	0.4272	0.6595	43	20	P1
Fluoride	1	<0.0099	<0.0099		20	
Sulfate	1	1.1871	0.0342	189	20	P1

Matrix Spike / Matrix Spike Duplicate

L733743-159

Analyte	Dil	Spike		% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
		Value	Sample MS								
Chloride	1	50	4.2589 53.580	99	53.395	98	80 - 120		0	20	
Fluoride	1	5	-0.027 4.6583	93	4.651	93	80 - 120		0	20	
Sulfate	1	50	-0.324 49.449	99	49.203	98	80 - 120		0	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755979
Collection Date:	11/11/2014	Analyst:	236
Analysis Date:	11/22/2014 8:49:00 PM		
Instrument ID:	IC-8		
Sample Numbers:	L733743-27, -28, -29, -30, -31, -32, -34, -35, -36, -37, -38, -39, -40, -43, -44, -45, -46, -47, -48, -52		

Sample Duplicate

L733743-39

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	13.904	13.848	0	20	
Fluoride	1	3.8939	3.8377	1	20	
Sulfate	50	4153.2	3975.4	4	20	

Sample Duplicate

L733743-29

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	50	3640.1	3476.5	5	20	
Fluoride	1	0.6882	0.6887	0	20	
Sulfate	50	4082.5	3905.5	4	20	

Matrix Spike / Matrix Spike Duplicate

L733743-30

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	50	1	1679.3	3964.6	91	3930.6	90	80 - 120	1	20	
Fluoride	1	5	0.8815	4.4617	72	4.5159	73	80 - 120	J6	1	20
Sulfate	50	1	2791.4	4860.4	83	4822.8	81	80 - 120	1	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755980
Collection Date:	11/11/2014	Analyst:	183
Analysis Date:	11/23/2014 10:38:00 AM		
Instrument ID:	IC-5		
Sample Numbers:	L733743-53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86		

Sample Duplicate

L733743-60

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	0.3973	0.3178	22	20	P1
Fluoride	1	0.0399	0.041	3	20	
Sulfate	1	0.7088	0.3049	80	20	P1

Sample Duplicate

L733743-63

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	0.2648	0.2666	1	20	
Fluoride	1	0.0465	0.0442	5	20	
Sulfate	1	0.3584	0.2957	19	20	

Matrix Spike / Matrix Spike Duplicate

L733743-61

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	1	50	1.0151	49.961	98	49.299	97	80 - 120	1	20	
Fluoride	1	5	0.0439	4.9061	97	4.7997	95	80 - 120	2	20	
Sulfate	1	50	0.2883	49.215	98	48.719	97	80 - 120	1	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755981
Analysis Date:	11/23/2014 12:22:00 PM	Analyst:	236
Instrument ID:	IC-9		
Sample Numbers:	L733743-87, -88, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99		

Sample Duplicate

L733881-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Fluoride	1	0.2176	0.2195	1	20	

Sample Duplicate

L733542-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Sulfate	10	319.20	285.45	11	20	

Matrix Spike / Matrix Spike Duplicate

L733743-88

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	1	50	2.6887	52.370	99	51.364	97	80 - 120	2	20	
Fluoride	1	5	-0.029	4.7432	95	4.8963	98	80 - 120	3	20	
Sulfate	1	50	2.093	49.874	96	48.513	93	80 - 120	3	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756286
Analysis Date:	11/24/2014 2:28:00 AM	Analyst:	183
Instrument ID:	IC-8		
Sample Numbers:	L733743-28, -31, -40, -45, -108, -117, -119, -129, -138, -150		

Sample Duplicate

L733884-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Sulfate	10	236.85	235.93	0	20	

Matrix Spike / Matrix Spike Duplicate

L733743-129

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Sulfate	5	10	251.51	466.34	86	464.75	85	80 - 120	0	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 9056MOD	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG756784
Collection Date:	11/11/2014	Analyst:	577
Analysis Date:	12/2/2014 8:29:00 PM		
Instrument ID:	IC-9		
Sample Numbers:	L733743-66, -69, -70, -71, -72, -73		

Sample Duplicate

L735467-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	20.887	20.747	1	20	
Sulfate	1	2.0146	2.0992	4	20	

Sample Duplicate

L735897-02

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	8.259	8.3673	1	20	

Matrix Spike / Matrix Spike Duplicate

L735467-03

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	1	50	35.065	82.632	95	83.748	97	80 - 120	1	20	
Sulfate	1	50	4.3213	54.180	100	54.016	99	80 - 120	0	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756800
Analysis Date:	11/26/2014 9:26:00 PM	Analyst:	577
Instrument ID:	IC-5		
Sample Numbers:	L733743-53, -54, -55, -57, -58, -59, -155		

Sample Duplicate

L734837-03

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	35.123	29.836	16	20	

Matrix Spike / Matrix Spike Duplicate

L734613-01

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	1	50	21.085	65.995	90	66.899	92	80 - 120	1	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG757012
Analysis Date:	11/28/2014 1:39:00 PM	Analyst:	577
Instrument ID:	IC-5		
Sample Numbers:	L733743-77, -78, -79, -80, -81, -82, -83, -84, -85, -86		

Sample Duplicate

L733743-84

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	10	340.81	319.31	7	20	
Sulfate	10	723.53	693.31	4	20	

Sample Duplicate

L734287-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	97.954	92.737	5	20	

Matrix Spike / Matrix Spike Duplicate

L734867-01

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	1	50	97.719	142.85	90	142.91	90	80 - 120	0	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0			Matrix:	Water - mg/L
Project No:	TX000836.0008.00004			EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM			Analytic Batch:	WG757344
Collection Date:	11/11/2014			Analyst:	236
Analysis Date:	12/1/2014 3:05:00 PM				
Instrument ID:	IC-10				
Sample Numbers:	L733743-85				

Sample Duplicate

L735431-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	8.9034	9.3844	5	20	
Sulfate	1	13.129	13.429	2	20	

Sample Duplicate

L735078-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	10.408	10.412	0	20	

Matrix Spike / Matrix Spike Duplicate

L735338-10

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	1	50	78.954	124.19	90	121.48	85	80 - 120	2	20	
Sulfate	1	50	2.9194	51.373	97	54.090	102	80 - 120	5	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test: Anions by Method 9056MOD
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG758368**
 Analysis Date: 12/5/2014 1:40:00 PM Analyst: 577
 Instrument ID: IC-10
 Sample Numbers: L733743-67

Sample Duplicate

L736163-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Sulfate	5	207.13	203.21	2	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Cyanide by Method 9012B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755288
Analysis Date:	11/19/2014 4:52:00 PM	Analyst:	578
Instrument ID:	LACHAT4		
Sample Numbers:	L733743-01, -02, -03		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Cyanide	57-12-5	< 0.00500	< 0.00180	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Cyanide	1	0.1	0.103	103	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Cyanide	1	0.1	0.102	102	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Cyanide	1	0.1	0.103	103	0.102	102	90 - 110	0.98	20	

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Cyanide by Method 9012B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755292
Analysis Date:	11/21/2014 7:28:00 AM	Analyst:	183
Instrument ID:	LACHAT4		
Sample Numbers:	L733743-04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -100, -102, -104, -107, -144, -148, -154		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Cyanide	57-12-5	< 0.00500	< 0.00180	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Cyanide	1	0.1	0.105	105	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Cyanide	1	0.1	0.0987	98.7	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	RPD	Qual
Cyanide	1	0.1	0.105	105	0.0987	98.7	90 - 110	6.19	20		

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Cyanide by Method 9012B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755528
Analysis Date:	11/21/2014 8:30:00 AM	Analyst:	183
Instrument ID:	LACHAT4		
Sample Numbers:	L733743-31, -55, -69, -77, -79, -91, -92, -93, -94, -95, -96, -98, -155, -159, -160		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Cyanide	57-12-5	< 0.00500	< 0.00180	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Cyanide	1	0.1	0.105	105	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Cyanide	1	0.1	0.0999	99.9	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	RPD	Qual
Cyanide	1	0.1	0.105	105	0.0999	99.9	90 - 110	4.98	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Cyanide by Method 9012B	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755288
Collection Date:	11/11/2014	Analyst:	578
Analysis Date:	11/19/2014 4:52:00 PM		
Instrument ID:	LACHAT4		
Sample Numbers:	L733743-01, -02, -03		

Sample Duplicate

L733811-02

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Cyanide	1	<0.0018	<0.0018		20	

Sample Duplicate

L733743-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Cyanide	1	<0.0018	<0.0018		20	

Matrix Spike / Matrix Spike Duplicate

L733618-05

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Cyanide	1	0.2	0.0	0.201	100	0.2	100	90 - 110		0.5	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Cyanide by Method 9012B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755292
Analysis Date:	11/21/2014 7:28:00 AM	Analyst:	183
Instrument ID:	LACHAT4		
Sample Numbers:	L733743-04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -100, -102, -104, -107, -144, -148, -154		

Sample Duplicate

L733743-05

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Cyanide	1	<0.0018	<0.0018		20	

Sample Duplicate

L733743-10

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Cyanide	1	0.0	0.0023	0	20	

Matrix Spike / Matrix Spike Duplicate

L733743-04

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Cyanide	1	0.2	0.0	0.136	68	0.146	73	90 - 110	J6	7.09	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Cyanide by Method 9012B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755528
Analysis Date:	11/21/2014 8:30:00 AM	Analyst:	183
Instrument ID:	LACHAT4		
Sample Numbers:	L733743-31, -55, -69, -77, -79, -91, -92, -93, -94, -95, -96, -98, -155, -159, -160		

Sample Duplicate

L733743-31

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Cyanide	1	<0.0018	<0.0018		20	

Sample Duplicate

L733743-92

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Cyanide	1	<0.0018	<0.0018		20	

Matrix Spike / Matrix Spike Duplicate

L733620-07

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Cyanide	1	0.2	0.0	0.183	91.5	0.191	95.5	90 - 110		4.28	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755162
Analysis Date:	11/17/2014 4:17:00 PM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, -29		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Nitrate-Nitrite	7727-37-9	< 0.100	< 0.0197	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.89	97.8	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.57	91.4	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Nitrate-Nitrite	1	5	4.89	97.8	4.57	91.4	90 - 110	6.77	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755168
Analysis Date:	11/18/2014 9:23:00 AM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-30, -31, -32, -34, -35, -36, -37, -38, -39, -40, -43, -44, -45, -46, -47, -48, -52, -53, -54, -55		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Nitrate-Nitrite	7727-37-9	< 0.100	< 0.0197	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	5.13	103	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.82	96.4	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Nitrate-Nitrite	1	5	5.13	103	4.82	96.4	90 - 110	6.23	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755260
Analysis Date:	11/18/2014 12:09:00 PM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, -72, -73, -74, -75, -77, -78, -79		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Nitrate-Nitrite	7727-37-9	< 0.100	< 0.0197	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.86	97.2	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.69	93.8	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Nitrate-Nitrite	1	5	4.86	97.2	4.69	93.8	90 - 110	3.56	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755261
Analysis Date:	11/19/2014 3:38:00 AM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Nitrate-Nitrite	7727-37-9	< 0.100	< 0.0197	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	5.23	105	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.88	97.6	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Nitrate-Nitrite	1	5	5.23	105	4.88	97.6	90 - 110	6.92	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755577
Analysis Date:	11/20/2014 10:46:00 AM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -112, -113, -114, -115, -116, -117, -118, -119, -120		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Nitrate-Nitrite	7727-37-9	< 0.100	< 0.0197	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.99	99.8	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.74	94.8	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Nitrate-Nitrite	1	5	4.99	99.8	4.74	94.8	90 - 110	5.14	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755578
Analysis Date:	11/20/2014 9:27:00 AM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Nitrate-Nitrite	7727-37-9	< 0.100	< 0.0197	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	5.11	102	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.9	98	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Nitrate-Nitrite	1	5	5.11	102	4.9	98	90 - 110	4.2	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755581
Analysis Date:	11/20/2014 2:03:00 AM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158, -159		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Nitrate-Nitrite	7727-37-9	< 0.100	< 0.0197	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	5.28	106	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.99	99.8	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Nitrate-Nitrite	1	5	5.28	106	4.99	99.8	90 - 110	5.65	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755868
Analysis Date:	11/20/2014 4:27:00 AM	Analyst:	183
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-111		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Nitrate-Nitrite	7727-37-9	< 0.100	< 0.0197	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	5.29	106	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	5.03	101	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Nitrate-Nitrite	1	5	5.29	106	5.03	101	90 - 110	5.04	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755162
Analysis Date:	11/17/2014 4:17:00 PM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, -29		

Sample Duplicate

L733743-15

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	3.3	3.49	5.88	20	

Sample Duplicate

L733743-10

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	5	13	13.8	7.41	20	

Matrix Spike / Matrix Spike Duplicate

L733743-29

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Nitrate-Nitrite	1	5	0.0	4.18	83.6	4.3	86	90 - 110	J6	2.83	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755168
Analysis Date:	11/18/2014 9:23:00 AM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-30, -31, -32, -34, -35, -36, -37, -38, -39, -40, -43, -44, -45, -46, -47, -48, -52, -53, -54, -55		

Sample Duplicate

L733743-40

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	0.14	0.138	0	20	

Sample Duplicate

L733743-43

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	1.8	1.75	0	20	

Matrix Spike / Matrix Spike Duplicate

L733743-44

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Nitrate-Nitrite	1	5	3.8	7.31	70.2	7.25	69	90 - 110	J6	0.82	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755260
Analysis Date:	11/18/2014 12:09:00 PM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, -72, -73, -74, -75, -77, -78, -79		

Sample Duplicate

L733743-78

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	0.85	0.666	23.7	20	J3

Sample Duplicate

L733743-67

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	0.0	0.0575	0	20	

Matrix Spike / Matrix Spike Duplicate

L733743-79

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Nitrate-Nitrite	1	5	6.5	11	90	10.6	82	90 - 110	J6	3.7	20	

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755261
Analysis Date:	11/19/2014 3:38:00 AM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100		

Sample Duplicate

L733743-88

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	<0.0197	<0.0197		20	

Sample Duplicate

L733743-90

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	0.0	0.0608	0	20	

Matrix Spike / Matrix Spike Duplicate

L733743-99

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Nitrate-Nitrite	1	5	0.0	2.23	44.6	2.29	45.8	90 - 110	J6	2.65	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755577
Analysis Date:	11/20/2014 10:46:00 AM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -112, -113, -114, -115, -116, -117, -118, -119, -120		

Sample Duplicate

L733743-110

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	<0.0197	<0.0197		20	

Sample Duplicate

L733743-119

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	0.36	0.365	0	20	

Matrix Spike / Matrix Spike Duplicate

L733743-120

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Nitrate-Nitrite	1	5	0.0	4.49	89.8	4.51	90.2	90 - 110		0.44	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755578
Analysis Date:	11/20/2014 9:27:00 AM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139		

Sample Duplicate

L733743-130

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	0.35	0.418	18.2	20	

Sample Duplicate

L733743-139

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	0.0	0.0266	0	20	

Matrix Spike / Matrix Spike Duplicate

L733743-140

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Nitrate-Nitrite	1	5	0.0	4.53	90.6	4.56	91.2	90 - 110	0.66	20		

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755581
Analysis Date:	11/20/2014 2:03:00 AM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158, -159		

Sample Duplicate

L733743-150

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	0.0	0.0414	0	20	

Sample Duplicate

L733743-159

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	<0.0197	<0.0197		20	

Matrix Spike / Matrix Spike Duplicate

L733743-160

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Nitrate-Nitrite	1	5	0.0	4.41	88.2	4.56	91.2	90 - 110	J6	3.34	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755868
Analysis Date:	11/20/2014 4:27:00 AM	Analyst:	183
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-111		

Sample Duplicate

L733884-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	2	14	13.82	0	20	

Sample Duplicate

L733889-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	5	21	21.9	4.65	20	

Matrix Spike / Matrix Spike Duplicate

L733605-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Nitrate-Nitrite	1	5	0.31	5.31	100	5.31	100	90 - 110		0	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754846
Analysis Date:	11/18/2014 2:28:00 PM	Analyst:	36
Instrument ID:	WETBAL2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8450	96	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8430	95.8	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Dissolved Solids	1	8800	8450	96	8430	95.8	85 - 115	0.24	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754847
Analysis Date:	11/18/2014 3:21:00 PM	Analyst:	36
Instrument ID:	WETBAL2		
Sample Numbers:	L733743-10, -11, -12, -13, -14, -15		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8920	101	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8650	98.3	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Dissolved Solids	1	8800	8920	101	8650	98.3	85 - 115	3.07	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755020
Analysis Date:	11/18/2014 3:38:00 PM	Analyst:	36
Instrument ID:	WETBAL2		
Sample Numbers:	L733743-104, -107, -111, -114, -117, -119, -120, -121, -125, -126, -127, -128, -129, -131, -132, -139, -141, -142, -143		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8460	96.1	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8320	94.5	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Dissolved Solids	1	8800	8460	96.1	8320	94.5	85 - 115	1.67	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755137
Analysis Date:	11/19/2014 2:38:00 PM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L733743-25, -26, -29, -34, -38, -40, -43, -44, -45, -48, -52, -53, -57, -59, -60, -63, -66, -147, -158, -159		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8470	96.2	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8530	96.9	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Dissolved Solids	1	8800	8470	96.2	8530	96.9	85 - 115	0.71	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755139
Analysis Date:	11/19/2014 3:35:00 PM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L733743-69, -70, -71, -72, -73, -74, -77, -80, -81, -82, -83, -84, -85, -88, -91, -92, -98, -100, -101		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8630	98.1	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8620	98	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Dissolved Solids	1	8800	8630	98.1	8620	98	85 - 115	0.12	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755145
Analysis Date:	11/19/2014 3:23:00 PM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L733743-102, -103, -105, -106, -108, -109, -110, -112, -113, -115		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8610	97.8	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8600	97.7	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Dissolved Solids	1	8800	8610	97.8	8600	97.7	85 - 115	0.12	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755146
Analysis Date:	11/20/2014 9:06:00 AM	Analyst:	519
Instrument ID:	WETBAL2		
Sample Numbers:	L733743-116, -118, -122, -123, -124, -130, -133, -134, -135, -136		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	7970	90.6	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8350	94.9	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Dissolved Solids	1	8800	7970	90.6	8350	94.9	85 - 115	4.66	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755343
Analysis Date:	11/20/2014 2:59:00 PM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L733743-27, -28, -30, -31, -137, -138, -140, -144, -145, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -160		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8520	96.8	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8580	97.5	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Dissolved Solids	1	8800	8520	96.8	8580	97.5	85 - 115	0.7	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755344
Analysis Date:	11/20/2014 2:45:00 PM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L733743-32, -35, -36, -37, -39, -46, -47, -54, -55, -56, -58, -61, -62, -67, -78, -79, -86, -87, -90, -93		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8690	98.8	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8520	96.8	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Dissolved Solids	1	8800	8690	98.8	8520	96.8	85 - 115	1.98	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755345
Analysis Date:	11/20/2014 3:21:00 PM	Analyst:	519
Instrument ID:	WETBAL2		
Sample Numbers:	L733743-94, -95, -96, -97, -99		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8740	99.3	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8710	99	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Dissolved Solids	1	8800	8740	99.3	8710	99	85 - 115	0.34	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756114
Analysis Date:	11/22/2014 3:47:00 PM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L733743-75		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8640	98.2	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8620	98	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	% RPD	Control RPD	Qual
Dissolved Solids	1	8800	8640	98.2	8620	98	85 - 115	0.23	5			



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test: Total Dissolved Solids by Method 2540 C-2011
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754846**
 Analysis Date: 11/18/2014 2:28:00 PM Analyst: 36
 Instrument ID: WETBAL2
 Sample Numbers: L733743-01, -02, -03, -04, -05, -06, -07, -08, -09

Sample Duplicate

L733699-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	448	448	0	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754847
Analysis Date:	11/18/2014 3:21:00 PM	Analyst:	36
Instrument ID:	WETBAL2		
Sample Numbers:	L733743-10, -11, -12, -13, -14, -15		

Sample Duplicate

L733743-10

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	3385	3375	0.3	5	

Sample Duplicate

L733851-20

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	1228	1278	3.99	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test: Total Dissolved Solids by Method 2540 C-2011
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG755020**
 Analysis Date: 11/18/2014 3:38:00 PM Analyst: 36
 Instrument ID: WETBAL2
 Sample Numbers: L733743-104, -107, -111, -114, -117, -119, -120, -121, -125, -126, -127, -128, -129, -131, -132, -139, -141, -142, -143

Sample Duplicate

L733743-104

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	3385	3415	0.88	5	

Sample Duplicate

L733743-146

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	1280	1307.5	2.13	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755137
Analysis Date:	11/19/2014 2:38:00 PM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L733743-25, -26, -29, -34, -38, -40, -43, -44, -45, -48, -52, -53, -57, -59, -60, -63, -66, -147, -158, -159		

Sample Duplicate

L733743-147

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	1260	1240	1.6	5	

Sample Duplicate

L733743-66

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	5150	5280	2.49	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755139
Analysis Date:	11/19/2014 3:35:00 PM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L733743-69, -70, -71, -72, -73, -74, -77, -80, -81, -82, -83, -84, -85, -88, -91, -92, -98, -100, -101		

Sample Duplicate

L733743-100

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	2340	2330	0.43	5	

Sample Duplicate

L733743-98

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	3045	2995	1.66	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test: Total Dissolved Solids by Method 2540 C-2011
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG755145**
 Analysis Date: 11/19/2014 3:23:00 PM Analyst: 36
 Instrument ID: WETBAL1
 Sample Numbers: L733743-102, -103, -105, -106, -108, -109, -110, -112, -113, -115

Sample Duplicate

L733743-102

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	2055	2030	1.22	5	



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test: Total Dissolved Solids by Method 2540 C-2011
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG755146**
 Analysis Date: 11/20/2014 9:06:00 AM Analyst: 519
 Instrument ID: WETBAL2
 Sample Numbers: L733743-116, -118, -122, -123, -124, -130, -133, -134, -135, -136

Sample Duplicate

L733743-116

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	1238	1272	2.71	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test: Total Dissolved Solids by Method 2540 C-2011
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG755343**
 Analysis Date: 11/20/2014 2:59:00 PM Analyst: 36
 Instrument ID: WETBAL1
 Sample Numbers: L733743-27, -28, -30, -31, -137, -138, -140, -144, -145, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -16

Sample Duplicate

L733743-137

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	1870	1875	0.27	5	

Sample Duplicate

L733743-31

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	32000	32240	0.75	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755344
Analysis Date:	11/20/2014 2:45:00 PM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L733743-32, -35, -36, -37, -39, -46, -47, -54, -55, -56, -58, -61, -62, -67, -78, -79, -86, -87, -90, -93		

Sample Duplicate

L733743-32

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	6630	6620	0.15	5	

Sample Duplicate

L733743-93

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	4730	4820	1.88	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test: Total Dissolved Solids by Method 2540 C-2011
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG755345**
 Analysis Date: 11/20/2014 3:21:00 PM Analyst: 519
 Instrument ID: WETBAL2
 Sample Numbers: L733743-94, -95, -96, -97, -99

Sample Duplicate

L733851-06

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	433	447	3.18	5	

Sample Duplicate

L733902-04

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	384	391	1.81	5	



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756114
Analysis Date:	11/22/2014 3:47:00 PM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L733743-75		

Sample Duplicate

L733743-75

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	<2.82	<2.82		5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Mercury by Method 7470A		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754885
Analysis Date:	11/18/2014 7:22:00 AM	Analyst:	657
Instrument ID:	CVAA3	Prep Date:	11/15/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -144, -148, -154, -155, -159		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Mercury	7439-97-6	< 0.200	< 0.0490	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Mercury	1	3	3.0056	100	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Mercury	1	3	2.9888	100	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Mercury	1	3	3.0056	100	2.9888	100	85 - 115	1	20	

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Mercury by Method 7470A	Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG754886
Collection Date:	11/11/2014	Analyst:	657
Analysis Date:	11/18/2014 8:55:00 AM	Prep Date:	11/15/2014
Instrument ID:	CVAA3		
Sample Numbers:	L733743-31, -55, -69, -77, -79, -91, -92, -93, -94, -95, -96, -98, -100, -102, -104, -107, -160		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Mercury	7439-97-6	< 0.200	< 0.0490	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Mercury	1	3	3.0649	102	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Mercury	1	3	3.0201	101	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	RPD	Qual
Mercury	1	3	3.0649	102	3.0201	101	85 - 115	1	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Mercury by Method 7470A		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754885
Analysis Date:	11/18/2014 7:22:00 AM	Analyst:	657
Instrument ID:	CVAA3	Prep Date:	11/15/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -144, -148, -154, -155, -159		

Serial Dilution

L733743-15

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Mercury	5	<0.049	<0.245		10	

Matrix Spike / Matrix Spike Duplicate

L733743-15

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Mercury	1	3	0.0327	2.4987	82	2.4645	81	80 - 120	1	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Mercury by Method 7470A		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754886
Analysis Date:	11/18/2014 8:55:00 AM	Analyst:	657
Instrument ID:	CVAA3	Prep Date:	11/15/2014
Sample Numbers:	L733743-31, -55, -69, -77, -79, -91, -92, -93, -94, -95, -96, -98, -100, -102, -104, -107, -160		

Serial Dilution

L733743-94

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Mercury	5	<0.049	<0.245		10	

Matrix Spike / Matrix Spike Duplicate

L733743-94

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Mercury	1	3	0.0296	3.1690	105	3.0273	100	80 - 120	5	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755200
Analysis Date:	11/18/2014 5:20:00 PM	Analyst:	117
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, -29		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Aluminum	7429-90-5	< 100	3.06	
Arsenic	7440-38-2	< 2.00	< 0.250	
Barium	7440-39-3	< 5.00	< 0.360	
Boron	7440-42-8	< 20.0	10.9	B
Cadmium	7440-43-9	< 1.00	< 0.160	
Calcium	7440-70-2	< 1000	< 46.0	
Chromium	7440-47-3	< 1.00	< 0.540	
Cobalt	7440-48-4	< 2.00	< 0.260	
Copper	7440-50-8	< 5.00	< 0.520	
Iron	7439-89-6	< 100	19.2	
Lead	7439-92-1	< 2.00	< 0.240	
Manganese	7439-96-5	< 5.00	0.380	
Molybdenum	7439-98-7	< 5.00	< 0.140	
Nickel	7440-02-0	< 2.00	1.03	B
Potassium	7440-09-7	< 1000	< 37.0	
Selenium	7782-49-2	< 2.00	< 0.380	
Silver	7440-22-4	< 2.00	< 0.310	
Sodium	7440-23-5	< 1000	< 110	
Uranium	7440-61-1	< 10.0	< 0.330	
Vanadium	7440-62-2	< 5.00	< 0.180	
Zinc	7440-66-6	< 25.0	< 2.56	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755201
Analysis Date:	11/20/2014 6:48:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Aluminum	7429-90-5	< 100	17.0	
Arsenic	7440-38-2	< 2.00	< 0.250	
Barium	7440-39-3	< 5.00	0.403	
Boron	7440-42-8	< 20.0	2.03	
Cadmium	7440-43-9	< 1.00	< 0.160	
Calcium	7440-70-2	< 1000	144	
Chromium	7440-47-3	1.6	1.6	B
Cobalt	7440-48-4	< 2.00	< 0.260	
Copper	7440-50-8	< 5.00	1.09	
Iron	7439-89-6	< 100	< 15.0	
Lead	7439-92-1	< 2.00	< 0.240	
Manganese	7439-96-5	< 5.00	0.845	
Molybdenum	7439-98-7	< 5.00	< 0.140	
Nickel	7440-02-0	< 2.00	1.22	B
Potassium	7440-09-7	< 1000	245	
Selenium	7782-49-2	< 2.00	< 0.380	
Silver	7440-22-4	< 2.00	< 0.310	
Sodium	7440-23-5	< 1000	324	
Uranium	7440-61-1	< 10.0	< 0.330	
Vanadium	7440-62-2	< 5.00	< 0.180	
Zinc	7440-66-6	< 25.0	7.2	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755204
Analysis Date:	11/25/2014 1:15:00 AM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-100, -101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Aluminum	7429-90-5	< 100	12.0	
Arsenic	7440-38-2	< 2.00	< 0.250	
Barium	7440-39-3	< 5.00	< 0.360	
Boron	7440-42-8	< 20.0	< 1.5	
Cadmium	7440-43-9	< 1.00	< 0.160	
Calcium	7440-70-2	< 1000	< 46.0	
Chromium	7440-47-3	< 1.00	< 0.540	
Cobalt	7440-48-4	< 2.00	< 0.260	
Copper	7440-50-8	< 5.00	< 0.520	
Iron	7439-89-6	< 100	< 15.0	
Lead	7439-92-1	< 2.00	0.639	
Manganese	7439-96-5	< 5.00	< 0.250	
Molybdenum	7439-98-7	< 5.00	< 0.140	
Nickel	7440-02-0	< 2.00	< 0.350	
Potassium	7440-09-7	< 1000	< 37.0	
Selenium	7782-49-2	< 2.00	< 0.380	
Silver	7440-22-4	< 2.00	< 0.310	
Sodium	7440-23-5	< 1000	< 110	
Uranium	7440-61-1	< 10.0	< 0.330	
Vanadium	7440-62-2	< 5.00	< 0.180	
Zinc	7440-66-6	< 25.0	< 2.56	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755205
Analysis Date:	12/1/2014 4:05:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Aluminum	7429-90-5	< 100	2.25	
Arsenic	7440-38-2	< 2.00	< 0.250	
Barium	7440-39-3	< 5.00	0.405	
Boron	7440-42-8	< 20.0	3.11	
Cadmium	7440-43-9	< 1.00	< 0.160	
Calcium	7440-70-2	< 1000	< 46.0	
Chromium	7440-47-3	< 1.00	< 0.540	
Cobalt	7440-48-4	< 2.00	< 0.260	
Copper	7440-50-8	< 5.00	< 0.520	
Iron	7439-89-6	< 100	< 15.0	
Lead	7439-92-1	< 2.00	< 0.240	
Manganese	7439-96-5	< 5.00	< 0.250	
Molybdenum	7439-98-7	< 5.00	< 0.140	
Nickel	7440-02-0	< 2.00	< 0.350	
Potassium	7440-09-7	< 1000	< 37.0	
Selenium	7782-49-2	< 2.00	0.564	
Silver	7440-22-4	< 2.00	< 0.310	
Sodium	7440-23-5	< 1000	< 110	
Uranium	7440-61-1	< 10.0	< 0.330	
Vanadium	7440-62-2	< 5.00	< 0.180	
Zinc	7440-66-6	< 25.0	< 2.56	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020	Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755207
Collection Date:	11/11/2014	Analyst:	117
Analysis Date:	12/1/2014 6:00:00 PM	Prep Date:	11/18/2014
Instrument ID:	ICPMS8		
Sample Numbers:	L733743-140, -141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Aluminum	7429-90-5	< 100	15.0	
Arsenic	7440-38-2	< 2.00	< 0.250	
Barium	7440-39-3	< 5.00	< 0.360	
Boron	7440-42-8	< 20.0	4.87	
Cadmium	7440-43-9	< 1.00	< 0.160	
Calcium	7440-70-2	< 1000	49.1	
Chromium	7440-47-3	< 1.00	< 0.540	
Cobalt	7440-48-4	< 2.00	< 0.260	
Copper	7440-50-8	< 5.00	< 0.520	
Iron	7439-89-6	< 100	< 15.0	
Lead	7439-92-1	< 2.00	< 0.240	
Manganese	7439-96-5	< 5.00	< 0.250	
Molybdenum	7439-98-7	< 5.00	< 0.140	
Nickel	7440-02-0	< 2.00	< 0.350	
Potassium	7440-09-7	< 1000	< 37.0	
Selenium	7782-49-2	< 2.00	< 0.380	
Silver	7440-22-4	< 2.00	< 0.310	
Sodium	7440-23-5	< 1000	< 110	
Uranium	7440-61-1	< 10.0	< 0.330	
Vanadium	7440-62-2	< 5.00	< 0.180	
Zinc	7440-66-6	< 25.0	< 2.56	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755208
Analysis Date:	11/18/2014 4:01:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-50, -51, -52, -53, -54, -55, -56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, -72		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Aluminum	7429-90-5	< 100	2.69	
Arsenic	7440-38-2	< 2.00	< 0.250	
Barium	7440-39-3	< 5.00	< 0.360	
Boron	7440-42-8	< 20.0	< 1.5	
Cadmium	7440-43-9	< 1.00	< 0.160	
Calcium	7440-70-2	< 1000	< 46.0	
Chromium	7440-47-3	< 1.00	< 0.540	
Cobalt	7440-48-4	< 2.00	< 0.260	
Copper	7440-50-8	< 5.00	< 0.520	
Iron	7439-89-6	< 100	< 15.0	
Lead	7439-92-1	< 2.00	< 0.240	
Manganese	7439-96-5	< 5.00	< 0.250	
Molybdenum	7439-98-7	< 5.00	< 0.140	
Nickel	7440-02-0	< 2.00	< 0.350	
Potassium	7440-09-7	< 1000	< 37.0	
Selenium	7782-49-2	< 2.00	< 0.380	
Silver	7440-22-4	< 2.00	< 0.310	
Sodium	7440-23-5	< 1000	< 110	
Uranium	7440-61-1	< 10.0	< 0.330	
Vanadium	7440-62-2	< 5.00	< 0.180	
Zinc	7440-66-6	< 25.0	< 2.56	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020	Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755209
Collection Date:	11/11/2014	Analyst:	664
Analysis Date:	11/19/2014 9:15:00 PM	Prep Date:	11/18/2014
Instrument ID:	ICPMS8		
Sample Numbers:	L733743-73, -74, -75, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, -94		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Aluminum	7429-90-5	< 100	10.7	
Arsenic	7440-38-2	< 2.00	< 0.250	
Barium	7440-39-3	< 5.00	0.778	
Boron	7440-42-8	< 20.0	< 1.5	
Cadmium	7440-43-9	< 1.00	< 0.160	
Calcium	7440-70-2	< 1000	62.5	
Chromium	7440-47-3	< 1.00	0.582	B
Cobalt	7440-48-4	< 2.00	< 0.260	
Copper	7440-50-8	< 5.00	0.666	
Iron	7439-89-6	< 100	< 15.0	
Lead	7439-92-1	< 2.00	1.31	B
Manganese	7439-96-5	< 5.00	< 0.250	
Molybdenum	7439-98-7	< 5.00	< 0.140	
Nickel	7440-02-0	< 2.00	0.538	
Potassium	7440-09-7	< 1000	< 37.0	
Selenium	7782-49-2	< 2.00	< 0.380	
Silver	7440-22-4	< 2.00	< 0.310	
Sodium	7440-23-5	< 1000	< 110	
Uranium	7440-61-1	< 10.0	< 0.330	
Vanadium	7440-62-2	< 5.00	< 0.180	
Zinc	7440-66-6	< 25.0	< 2.56	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020	Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755211
Collection Date:	11/11/2014	Analyst:	664
Analysis Date:	11/20/2014 5:49:00 PM	Prep Date:	11/18/2014
Instrument ID:	ICPMS8		
Sample Numbers:	L733743-95, -96, -97, -98, -99, -160		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Aluminum	7429-90-5	< 100	4.19	
Arsenic	7440-38-2	< 2.00	< 0.250	
Barium	7440-39-3	< 5.00	< 0.360	
Boron	7440-42-8	< 20.0	< 1.5	
Cadmium	7440-43-9	< 1.00	< 0.160	
Calcium	7440-70-2	< 1000	< 46.0	
Chromium	7440-47-3	< 1.00	< 0.540	B
Cobalt	7440-48-4	< 2.00	< 0.260	
Copper	7440-50-8	< 5.00	< 0.520	
Iron	7439-89-6	< 100	< 15.0	
Lead	7439-92-1	< 2.00	< 0.240	
Manganese	7439-96-5	< 5.00	< 0.250	
Molybdenum	7439-98-7	< 5.00	< 0.140	
Nickel	7440-02-0	< 2.00	< 0.350	
Potassium	7440-09-7	< 1000	< 37.0	
Selenium	7782-49-2	< 2.00	< 0.380	
Silver	7440-22-4	< 2.00	< 0.310	
Sodium	7440-23-5	< 1000	< 110	
Uranium	7440-61-1	< 10.0	< 0.330	
Vanadium	7440-62-2	< 5.00	< 0.180	
Zinc	7440-66-6	< 25.0	< 2.56	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755434
Analysis Date:	11/20/2014 7:41:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/19/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Aluminum,Dissolved	7429-90-5	< 100	< 2.00	
Arsenic,Dissolved	7440-38-2	< 2.00	< 0.250	
Barium,Dissolved	7440-39-3	< 5.00	< 0.360	
Boron,Dissolved	7440-42-8	< 20.0	< 1.5	
Cadmium,Dissolved	7440-43-9	< 1.00	< 0.160	
Calcium,Dissolved	7440-70-2	< 1000	< 46.0	
Chromium,Dissolved	7440-47-3	< 1.00	0.615	B
Cobalt,Dissolved	7440-48-4	< 2.00	< 0.260	
Copper,Dissolved	7440-50-8	< 5.00	< 0.520	
Iron,Dissolved	7439-89-6	< 100	< 15.0	
Lead,Dissolved	7439-92-1	< 2.00	< 0.240	
Manganese,Dissolved	7439-96-5	< 5.00	< 0.250	
Molybdenum,Dissolved	7439-98-7	< 5.00	< 0.140	
Nickel,Dissolved	7440-02-0	< 2.00	< 0.350	
Potassium,Dissolved	7440-09-7	< 1000	< 37.0	
Selenium,Dissolved	7782-49-2	< 2.00	0.579	
Silver,Dissolved	7440-22-4	< 2.00	< 0.310	
Sodium,Dissolved	7440-23-5	< 1000	< 110	
Uranium,Dissolved	7440-61-1	< 10.0	< 0.330	
Vanadium,Dissolved	7440-62-2	< 5.00	< 0.180	
Zinc,Dissolved	7440-66-6	< 25.0	< 2.56	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756145
Analysis Date:	11/24/2014 6:51:00 PM	Analyst:	117
Instrument ID:	ICPMS8	Prep Date:	11/21/2014
Sample Numbers:	L733743-33, -35, -36, -37, -39, -43, -44, -45		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chromium	7440-47-3	< 1.00	< 0.540	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chromium	1	50	50.382	101	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chromium	1	50	51.022	102	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Chromium	1	50	50.382	101	51.022	102	85 - 115	1	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755200
Analysis Date:	11/18/2014 5:20:00 PM	Analyst:	117
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, -29		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	472.28	94	70 - 130	
Arsenic	1	50	48.889	98	85 - 115	
Barium	1	50	44.982	90	85 - 115	
Boron	1	50	52.927	106	70 - 130	
Cadmium	1	50	45.273	91	85 - 115	
Calcium	1	5000	4865.4	97	70 - 130	
Chromium	1	50	50.624	101	85 - 115	
Cobalt	1	50	51.685	103	85 - 115	
Copper	1	50	52.210	104	85 - 115	
Iron	1	500	509.96	102	85 - 115	
Lead	1	50	51.977	104	85 - 115	
Manganese	1	50	50.282	101	85 - 115	
Molybdenum	1	50	51.409	103	85 - 115	
Nickel	1	50	51.413	103	85 - 115	
Potassium	1	5000	4667.2	93	70 - 130	
Selenium	1	50	44.589	89	85 - 115	
Silver	1	50	47.694	95	85 - 115	
Sodium	1	5000	5022.2	100	70 - 130	
Uranium	1	50	50.716	101	70 - 130	
Vanadium	1	50	48.967	98	85 - 115	
Zinc	1	50	48.977	98	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755200	
Collection Date:	11/11/2014	Analyst:	117	
Analysis Date:	11/18/2014 5:20:00 PM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, -29			

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	508.47	102	70 - 130	
Arsenic	1	50	49.444	99	85 - 115	
Barium	1	50	47.486	95	85 - 115	
Boron	1	50	53.921	108	70 - 130	
Cadmium	1	50	47.791	96	85 - 115	
Calcium	1	5000	5032.1	101	70 - 130	
Chromium	1	50	52.432	105	85 - 115	
Cobalt	1	50	52.373	105	85 - 115	
Copper	1	50	52.320	105	85 - 115	
Iron	1	500	513.35	103	85 - 115	
Lead	1	50	52.909	106	85 - 115	
Manganese	1	50	51.072	102	85 - 115	
Molybdenum	1	50	51.418	103	85 - 115	
Nickel	1	50	53.159	106	85 - 115	
Potassium	1	5000	4842.4	97	70 - 130	
Selenium	1	50	45.938	92	85 - 115	
Silver	1	50	48.870	98	85 - 115	
Sodium	1	5000	5216.4	104	70 - 130	
Uranium	1	50	52.270	105	70 - 130	
Vanadium	1	50	50.193	100	85 - 115	
Zinc	1	50	51.057	102	85 - 115	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM		Analytic Batch:	WG755200
Collection Date:	11/11/2014	Analyst:	117	
Analysis Date:	11/18/2014 5:20:00 PM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, -29			

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
Aluminum	1	500	472.28	94	508.47	102	70 - 130		7	20
Arsenic	1	50	48.889	98	49.444	99	85 - 115		1	20
Barium	1	50	44.982	90	47.486	95	85 - 115		5	20
Boron	1	50	52.927	106	53.921	108	70 - 130		2	20
Cadmium	1	50	45.273	91	47.791	96	85 - 115		5	20
Calcium	1	5000	4865.4	97	5032.1	101	70 - 130		3	20
Chromium	1	50	50.624	101	52.432	105	85 - 115		4	20
Cobalt	1	50	51.685	103	52.373	105	85 - 115		1	20
Copper	1	50	52.210	104	52.320	105	85 - 115		0	20
Iron	1	500	509.96	102	513.35	103	85 - 115		1	20
Lead	1	50	51.977	104	52.909	106	85 - 115		2	20
Manganese	1	50	50.282	101	51.072	102	85 - 115		2	20
Molybdenum	1	50	51.409	103	51.418	103	85 - 115		0	20
Nickel	1	50	51.413	103	53.159	106	85 - 115		3	20
Potassium	1	5000	4667.2	93	4842.4	97	70 - 130		4	20
Selenium	1	50	44.589	89	45.938	92	85 - 115		3	20
Silver	1	50	47.694	95	48.870	98	85 - 115		2	20
Sodium	1	5000	5022.2	100	5216.4	104	70 - 130		4	20
Uranium	1	50	50.716	101	52.270	105	70 - 130		3	20
Vanadium	1	50	48.967	98	50.193	100	85 - 115		2	20
Zinc	1	50	48.977	98	51.057	102	85 - 115		4	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755201
Analysis Date:	11/20/2014 6:48:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	492.67	99	70 - 130	
Arsenic	1	50	49.398	99	85 - 115	
Barium	1	50	49.956	100	85 - 115	
Boron	1	50	46.804	94	70 - 130	
Cadmium	1	50	49.242	98	85 - 115	
Calcium	1	5000	5063.1	101	70 - 130	
Chromium	1	50	52.621	105	85 - 115	
Cobalt	1	50	50.939	102	85 - 115	
Copper	1	50	51.111	102	85 - 115	
Iron	1	500	499.19	100	85 - 115	
Lead	1	50	51.613	103	85 - 115	
Manganese	1	50	50.350	101	85 - 115	
Molybdenum	1	50	51.097	102	85 - 115	
Nickel	1	50	51.195	102	85 - 115	
Potassium	1	5000	4981.3	100	70 - 130	
Selenium	1	50	44.224	88	85 - 115	
Silver	1	50	49.636	99	85 - 115	
Sodium	1	5000	5399.3	108	70 - 130	
Uranium	1	50	51.042	102	70 - 130	
Vanadium	1	50	50.865	102	85 - 115	
Zinc	1	50	49.717	99	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755201
Analysis Date:	11/20/2014 6:48:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	532.59	107	70 - 130	
Arsenic	1	50	49.912	100	85 - 115	
Barium	1	50	50.853	102	85 - 115	
Boron	1	50	48.032	96	70 - 130	
Cadmium	1	50	50.399	101	85 - 115	
Calcium	1	5000	4976.7	100	70 - 130	
Chromium	1	50	53.721	107	85 - 115	
Cobalt	1	50	51.258	103	85 - 115	
Copper	1	50	52.238	104	85 - 115	
Iron	1	500	500.21	100	85 - 115	
Lead	1	50	52.446	105	85 - 115	
Manganese	1	50	50.743	101	85 - 115	
Molybdenum	1	50	51.664	103	85 - 115	
Nickel	1	50	52.036	104	85 - 115	
Potassium	1	5000	5121.0	102	70 - 130	
Selenium	1	50	51.183	102	85 - 115	
Silver	1	50	50.742	101	85 - 115	
Sodium	1	5000	5361.9	107	70 - 130	
Uranium	1	50	51.840	104	70 - 130	
Vanadium	1	50	52.174	104	85 - 115	
Zinc	1	50	49.084	98	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM		Analytic Batch:	WG755201
Collection Date:	11/11/2014	Analyst:	664	
Analysis Date:	11/20/2014 6:48:00 PM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49			

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
Aluminum	1	500	492.67	99	532.59	107	70 - 130		8	20
Arsenic	1	50	49.398	99	49.912	100	85 - 115		1	20
Barium	1	50	49.956	100	50.853	102	85 - 115		2	20
Boron	1	50	46.804	94	48.032	96	70 - 130		3	20
Cadmium	1	50	49.242	98	50.399	101	85 - 115		2	20
Calcium	1	5000	5063.1	101	4976.7	100	70 - 130		2	20
Chromium	1	50	52.621	105	53.721	107	85 - 115		2	20
Cobalt	1	50	50.939	102	51.258	103	85 - 115		1	20
Copper	1	50	51.111	102	52.238	104	85 - 115		2	20
Iron	1	500	499.19	100	500.21	100	85 - 115		0	20
Lead	1	50	51.613	103	52.446	105	85 - 115		2	20
Manganese	1	50	50.350	101	50.743	101	85 - 115		1	20
Molybdenum	1	50	51.097	102	51.664	103	85 - 115		1	20
Nickel	1	50	51.195	102	52.036	104	85 - 115		2	20
Potassium	1	5000	4981.3	100	5121.0	102	70 - 130		3	20
Selenium	1	50	44.224	88	51.183	102	85 - 115		15	20
Silver	1	50	49.636	99	50.742	101	85 - 115		2	20
Sodium	1	5000	5399.3	108	5361.9	107	70 - 130		1	20
Uranium	1	50	51.042	102	51.840	104	70 - 130		2	20
Vanadium	1	50	50.865	102	52.174	104	85 - 115		3	20
Zinc	1	50	49.717	99	49.084	98	85 - 115		1	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755204
Analysis Date:	11/25/2014 1:15:00 AM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-100, -101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	509.26	102	70 - 130	
Arsenic	1	50	48.045	96	85 - 115	
Barium	1	50	49.350	99	85 - 115	
Boron	1	50	48.565	97	70 - 130	
Cadmium	1	50	48.641	97	85 - 115	
Calcium	1	5000	4889.8	98	70 - 130	
Chromium	1	50	49.169	98	85 - 115	
Cobalt	1	50	48.854	98	85 - 115	
Copper	1	50	48.776	98	85 - 115	
Iron	1	500	486.36	97	85 - 115	
Lead	1	50	49.624	99	85 - 115	
Manganese	1	50	49.966	100	85 - 115	
Molybdenum	1	50	48.475	97	85 - 115	
Nickel	1	50	48.317	97	85 - 115	
Potassium	1	5000	4932.9	99	70 - 130	
Selenium	1	50	47.805	96	85 - 115	
Silver	1	50	52.504	105	85 - 115	
Sodium	1	5000	4939.6	99	70 - 130	
Uranium	1	50	48.274	97	70 - 130	
Vanadium	1	50	48.925	98	85 - 115	
Zinc	1	50	46.214	92	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755204	
Collection Date:	11/11/2014	Analyst:	664	
Analysis Date:	11/25/2014 1:15:00 AM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-100, -101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118			

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	517.26	103	70 - 130	
Arsenic	1	50	48.299	97	85 - 115	
Barium	1	50	51.282	103	85 - 115	
Boron	1	50	49.713	99	70 - 130	
Cadmium	1	50	49.093	98	85 - 115	
Calcium	1	5000	5050.3	101	70 - 130	
Chromium	1	50	50.076	100	85 - 115	
Cobalt	1	50	49.316	99	85 - 115	
Copper	1	50	49.004	98	85 - 115	
Iron	1	500	492.55	99	85 - 115	
Lead	1	50	49.097	98	85 - 115	
Manganese	1	50	50.166	100	85 - 115	
Molybdenum	1	50	47.997	96	85 - 115	
Nickel	1	50	48.666	97	85 - 115	
Potassium	1	5000	5007.1	100	70 - 130	
Selenium	1	50	48.254	97	85 - 115	
Silver	1	50	53.311	107	85 - 115	
Sodium	1	5000	4996.5	100	70 - 130	
Uranium	1	50	47.505	95	70 - 130	
Vanadium	1	50	49.520	99	85 - 115	
Zinc	1	50	47.364	95	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM		Analytic Batch:	WG755204
Collection Date:	11/11/2014	Analyst:	664	
Analysis Date:	11/25/2014 1:15:00 AM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-100, -101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118			

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
Aluminum	1	500	509.26	102	517.26	103	70 - 130		2	20
Arsenic	1	50	48.045	96	48.299	97	85 - 115		1	20
Barium	1	50	49.350	99	51.282	103	85 - 115		4	20
Boron	1	50	48.565	97	49.713	99	70 - 130		2	20
Cadmium	1	50	48.641	97	49.093	98	85 - 115		1	20
Calcium	1	5000	4889.8	98	5050.3	101	70 - 130		3	20
Chromium	1	50	49.169	98	50.076	100	85 - 115		2	20
Cobalt	1	50	48.854	98	49.316	99	85 - 115		1	20
Copper	1	50	48.776	98	49.004	98	85 - 115		0	20
Iron	1	500	486.36	97	492.55	99	85 - 115		1	20
Lead	1	50	49.624	99	49.097	98	85 - 115		1	20
Manganese	1	50	49.966	100	50.166	100	85 - 115		0	20
Molybdenum	1	50	48.475	97	47.997	96	85 - 115		1	20
Nickel	1	50	48.317	97	48.666	97	85 - 115		1	20
Potassium	1	5000	4932.9	99	5007.1	100	70 - 130		1	20
Selenium	1	50	47.805	96	48.254	97	85 - 115		1	20
Silver	1	50	52.504	105	53.311	107	85 - 115		2	20
Sodium	1	5000	4939.6	99	4996.5	100	70 - 130		1	20
Uranium	1	50	48.274	97	47.505	95	70 - 130		2	20
Vanadium	1	50	48.925	98	49.520	99	85 - 115		1	20
Zinc	1	50	46.214	92	47.364	95	85 - 115		2	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755205
Analysis Date:	12/1/2014 4:05:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	522.25	104	70 - 130	
Arsenic	1	50	50.527	101	85 - 115	
Barium	1	50	52.069	104	85 - 115	
Boron	1	50	50.371	101	70 - 130	
Cadmium	1	50	49.916	100	85 - 115	
Calcium	1	5000	5320.4	106	70 - 130	
Chromium	1	50	54.405	109	85 - 115	
Cobalt	1	50	53.532	107	85 - 115	
Copper	1	50	53.337	107	85 - 115	
Iron	1	500	528.83	106	85 - 115	
Lead	1	50	53.082	106	85 - 115	
Manganese	1	50	53.902	108	85 - 115	
Molybdenum	1	50	52.928	106	85 - 115	
Nickel	1	50	52.895	106	85 - 115	
Potassium	1	5000	5101.1	102	70 - 130	
Selenium	1	50	48.564	97	85 - 115	
Silver	1	50	49.387	99	85 - 115	
Sodium	1	5000	5176.3	104	70 - 130	
Uranium	1	50	52.052	104	70 - 130	
Vanadium	1	50	52.271	105	85 - 115	
Zinc	1	50	51.968	104	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755205
Analysis Date:	12/1/2014 4:05:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	500.31	100	70 - 130	
Arsenic	1	50	50.182	100	85 - 115	
Barium	1	50	49.796	100	85 - 115	
Boron	1	50	50.168	100	70 - 130	
Cadmium	1	50	48.645	97	85 - 115	
Calcium	1	5000	5105.0	102	70 - 130	
Chromium	1	50	52.246	104	85 - 115	
Cobalt	1	50	51.938	104	85 - 115	
Copper	1	50	52.101	104	85 - 115	
Iron	1	500	513.24	103	85 - 115	
Lead	1	50	51.479	103	85 - 115	
Manganese	1	50	51.946	104	85 - 115	
Molybdenum	1	50	51.604	103	85 - 115	
Nickel	1	50	51.528	103	85 - 115	
Potassium	1	5000	4919.2	98	70 - 130	
Selenium	1	50	47.094	94	85 - 115	
Silver	1	50	48.096	96	85 - 115	
Sodium	1	5000	5047.1	101	70 - 130	
Uranium	1	50	50.238	100	70 - 130	
Vanadium	1	50	50.875	102	85 - 115	
Zinc	1	50	51.085	102	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020	Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755205
Collection Date:	11/11/2014	Analyst:	664
Analysis Date:	12/1/2014 4:05:00 PM	Prep Date:	11/18/2014
Instrument ID:	ICPMS8		
Sample Numbers:	L733743-120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
Aluminum	1	500	522.25	104	500.31	100	70 - 130		4	20
Arsenic	1	50	50.527	101	50.182	100	85 - 115		1	20
Barium	1	50	52.069	104	49.796	100	85 - 115		4	20
Boron	1	50	50.371	101	50.168	100	70 - 130		0	20
Cadmium	1	50	49.916	100	48.645	97	85 - 115		3	20
Calcium	1	5000	5320.4	106	5105.0	102	70 - 130		4	20
Chromium	1	50	54.405	109	52.246	104	85 - 115		4	20
Cobalt	1	50	53.532	107	51.938	104	85 - 115		3	20
Copper	1	50	53.337	107	52.101	104	85 - 115		2	20
Iron	1	500	528.83	106	513.24	103	85 - 115		3	20
Lead	1	50	53.082	106	51.479	103	85 - 115		3	20
Manganese	1	50	53.902	108	51.946	104	85 - 115		4	20
Molybdenum	1	50	52.928	106	51.604	103	85 - 115		3	20
Nickel	1	50	52.895	106	51.528	103	85 - 115		3	20
Potassium	1	5000	5101.1	102	4919.2	98	70 - 130		4	20
Selenium	1	50	48.564	97	47.094	94	85 - 115		3	20
Silver	1	50	49.387	99	48.096	96	85 - 115		3	20
Sodium	1	5000	5176.3	104	5047.1	101	70 - 130		3	20
Uranium	1	50	52.052	104	50.238	100	70 - 130		4	20
Vanadium	1	50	52.271	105	50.875	102	85 - 115		3	20
Zinc	1	50	51.968	104	51.085	102	85 - 115		2	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020	Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755207
Collection Date:	11/11/2014	Analyst:	117
Analysis Date:	12/1/2014 6:00:00 PM	Prep Date:	11/18/2014
Instrument ID:	ICPMS8		
Sample Numbers:	L733743-140, -141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	531.46	106	70 - 130	
Arsenic	1	50	49.720	99	85 - 115	
Barium	1	50	51.573	103	85 - 115	
Boron	1	50	53.294	107	70 - 130	
Cadmium	1	50	50.161	100	85 - 115	
Calcium	1	5000	5158.5	103	70 - 130	
Chromium	1	50	52.346	105	85 - 115	
Cobalt	1	50	51.891	104	85 - 115	
Copper	1	50	51.635	103	85 - 115	
Iron	1	500	511.66	102	85 - 115	
Lead	1	50	51.794	104	85 - 115	
Manganese	1	50	52.054	104	85 - 115	
Molybdenum	1	50	51.079	102	85 - 115	
Nickel	1	50	51.768	104	85 - 115	
Potassium	1	5000	5109.0	102	70 - 130	
Selenium	1	50	49.580	99	85 - 115	
Silver	1	50	48.574	97	85 - 115	
Sodium	1	5000	5111.9	102	70 - 130	
Uranium	1	50	50.880	102	70 - 130	
Vanadium	1	50	51.445	103	85 - 115	
Zinc	1	50	52.604	105	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755207
Analysis Date:	12/1/2014 6:00:00 PM	Analyst:	117
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-140, -141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	514.76	103	70 - 130	
Arsenic	1	50	49.795	100	85 - 115	
Barium	1	50	49.983	100	85 - 115	
Boron	1	50	53.771	108	70 - 130	
Cadmium	1	50	48.851	98	85 - 115	
Calcium	1	5000	4908.7	98	70 - 130	
Chromium	1	50	51.847	104	85 - 115	
Cobalt	1	50	51.254	103	85 - 115	
Copper	1	50	51.054	102	85 - 115	
Iron	1	500	526.80	105	85 - 115	
Lead	1	50	51.262	103	85 - 115	
Manganese	1	50	51.238	102	85 - 115	
Molybdenum	1	50	51.282	103	85 - 115	
Nickel	1	50	50.805	102	85 - 115	
Potassium	1	5000	5029.1	101	70 - 130	
Selenium	1	50	46.277	93	85 - 115	
Silver	1	50	48.640	97	85 - 115	
Sodium	1	5000	5019.6	100	70 - 130	
Uranium	1	50	50.301	101	70 - 130	
Vanadium	1	50	50.146	100	85 - 115	
Zinc	1	50	50.020	100	85 - 115	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020	Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755207
Collection Date:	11/11/2014	Analyst:	117
Analysis Date:	12/1/2014 6:00:00 PM	Prep Date:	11/18/2014
Instrument ID:	ICPMS8		
Sample Numbers:	L733743-140, -141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
Aluminum	1	500	531.46	106	514.76	103	70 - 130		3	20
Arsenic	1	50	49.720	99	49.795	100	85 - 115		0	20
Barium	1	50	51.573	103	49.983	100	85 - 115		3	20
Boron	1	50	53.294	107	53.771	108	70 - 130		1	20
Cadmium	1	50	50.161	100	48.851	98	85 - 115		3	20
Calcium	1	5000	5158.5	103	4908.7	98	70 - 130		5	20
Chromium	1	50	52.346	105	51.847	104	85 - 115		1	20
Cobalt	1	50	51.891	104	51.254	103	85 - 115		1	20
Copper	1	50	51.635	103	51.054	102	85 - 115		1	20
Iron	1	500	511.66	102	526.80	105	85 - 115		3	20
Lead	1	50	51.794	104	51.262	103	85 - 115		1	20
Manganese	1	50	52.054	104	51.238	102	85 - 115		2	20
Molybdenum	1	50	51.079	102	51.282	103	85 - 115		0	20
Nickel	1	50	51.768	104	50.805	102	85 - 115		2	20
Potassium	1	5000	5109.0	102	5029.1	101	70 - 130		2	20
Selenium	1	50	49.580	99	46.277	93	85 - 115		7	20
Silver	1	50	48.574	97	48.640	97	85 - 115		0	20
Sodium	1	5000	5111.9	102	5019.6	100	70 - 130		2	20
Uranium	1	50	50.880	102	50.301	101	70 - 130		1	20
Vanadium	1	50	51.445	103	50.146	100	85 - 115		3	20
Zinc	1	50	52.604	105	50.020	100	85 - 115		5	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755208	
Collection Date:	11/11/2014	Analyst:	664	
Analysis Date:	11/18/2014 4:01:00 PM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-50, -51, -52, -53, -54, -55, -56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, -72			

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	500.56	100	70 - 130	
Arsenic	1	50	49.706	99	85 - 115	
Barium	1	50	48.167	96	85 - 115	
Boron	1	50	51.202	102	70 - 130	
Cadmium	1	50	48.140	96	85 - 115	
Calcium	1	5000	4966.7	99	70 - 130	
Chromium	1	50	51.037	102	85 - 115	
Cobalt	1	50	50.724	101	85 - 115	
Copper	1	50	50.304	101	85 - 115	
Iron	1	500	504.64	101	85 - 115	
Lead	1	50	50.254	101	85 - 115	
Manganese	1	50	50.464	101	85 - 115	
Molybdenum	1	50	50.621	101	85 - 115	
Nickel	1	50	50.771	102	85 - 115	
Potassium	1	5000	4799.5	96	70 - 130	
Selenium	1	50	46.435	93	85 - 115	
Silver	1	50	48.608	97	85 - 115	
Sodium	1	5000	4973.9	99	70 - 130	
Uranium	1	50	49.404	99	70 - 130	
Vanadium	1	50	50.354	101	85 - 115	
Zinc	1	50	48.614	97	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755208
Analysis Date:	11/18/2014 4:01:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-50, -51, -52, -53, -54, -55, -56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, -72		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	489.12	98	70 - 130	
Arsenic	1	50	50.605	101	85 - 115	
Barium	1	50	47.870	96	85 - 115	
Boron	1	50	50.112	100	70 - 130	
Cadmium	1	50	47.957	96	85 - 115	
Calcium	1	5000	4790.7	96	70 - 130	
Chromium	1	50	50.524	101	85 - 115	
Cobalt	1	50	50.940	102	85 - 115	
Copper	1	50	51.998	104	85 - 115	
Iron	1	500	514.52	103	85 - 115	
Lead	1	50	51.157	102	85 - 115	
Manganese	1	50	51.679	103	85 - 115	
Molybdenum	1	50	51.104	102	85 - 115	
Nickel	1	50	52.497	105	85 - 115	
Potassium	1	5000	4804.4	96	70 - 130	
Selenium	1	50	43.922	88	85 - 115	
Silver	1	50	48.563	97	85 - 115	
Sodium	1	5000	4957.9	99	70 - 130	
Uranium	1	50	50.394	101	70 - 130	
Vanadium	1	50	48.862	98	85 - 115	
Zinc	1	50	50.419	101	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755208	
Collection Date:	11/11/2014	Analyst:	664	
Analysis Date:	11/18/2014 4:01:00 PM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-50, -51, -52, -53, -54, -55, -56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, -72			

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
Aluminum	1	500	500.56	100	489.12	98	70 - 130		2	20
Arsenic	1	50	49.706	99	50.605	101	85 - 115		2	20
Barium	1	50	48.167	96	47.870	96	85 - 115		1	20
Boron	1	50	51.202	102	50.112	100	70 - 130		2	20
Cadmium	1	50	48.140	96	47.957	96	85 - 115		0	20
Calcium	1	5000	4966.7	99	4790.7	96	70 - 130		4	20
Chromium	1	50	51.037	102	50.524	101	85 - 115		1	20
Cobalt	1	50	50.724	101	50.940	102	85 - 115		0	20
Copper	1	50	50.304	101	51.998	104	85 - 115		3	20
Iron	1	500	504.64	101	514.52	103	85 - 115		2	20
Lead	1	50	50.254	101	51.157	102	85 - 115		2	20
Manganese	1	50	50.464	101	51.679	103	85 - 115		2	20
Molybdenum	1	50	50.621	101	51.104	102	85 - 115		1	20
Nickel	1	50	50.771	102	52.497	105	85 - 115		3	20
Potassium	1	5000	4799.5	96	4804.4	96	70 - 130		0	20
Selenium	1	50	46.435	93	43.922	88	85 - 115		6	20
Silver	1	50	48.608	97	48.563	97	85 - 115		0	20
Sodium	1	5000	4973.9	99	4957.9	99	70 - 130		0	20
Uranium	1	50	49.404	99	50.394	101	70 - 130		2	20
Vanadium	1	50	50.354	101	48.862	98	85 - 115		3	20
Zinc	1	50	48.614	97	50.419	101	85 - 115		4	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755209
Analysis Date:	11/19/2014 9:15:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-73, -74, -75, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, -94		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	534.79	107	70 - 130	
Arsenic	1	50	47.388	95	85 - 115	
Barium	1	50	49.559	99	85 - 115	
Boron	1	50	40.440	81	70 - 130	
Cadmium	1	50	48.717	97	85 - 115	
Calcium	1	5000	5034.8	101	70 - 130	
Chromium	1	50	50.343	101	85 - 115	
Cobalt	1	50	48.380	97	85 - 115	
Copper	1	50	47.963	96	85 - 115	
Iron	1	500	488.12	98	85 - 115	
Lead	1	50	47.292	95	85 - 115	
Manganese	1	50	50.609	101	85 - 115	
Molybdenum	1	50	47.474	95	85 - 115	
Nickel	1	50	49.791	100	85 - 115	
Potassium	1	5000	4980.6	100	70 - 130	
Selenium	1	50	47.628	95	85 - 115	
Silver	1	50	51.256	103	85 - 115	
Sodium	1	5000	4995.9	100	70 - 130	
Uranium	1	50	45.941	92	70 - 130	
Vanadium	1	50	49.169	98	85 - 115	
Zinc	1	50	47.769	96	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755209	
Collection Date:	11/11/2014	Analyst:	664	
Analysis Date:	11/19/2014 9:15:00 PM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-73, -74, -75, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, -94			

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	523.89	105	70 - 130	
Arsenic	1	50	46.490	93	85 - 115	
Barium	1	50	51.481	103	85 - 115	
Boron	1	50	42.881	86	70 - 130	
Cadmium	1	50	47.506	95	85 - 115	
Calcium	1	5000	4773.6	95	70 - 130	
Chromium	1	50	48.917	98	85 - 115	
Cobalt	1	50	46.855	94	85 - 115	
Copper	1	50	46.937	94	85 - 115	
Iron	1	500	480.33	96	85 - 115	
Lead	1	50	46.780	94	85 - 115	
Manganese	1	50	48.618	97	85 - 115	
Molybdenum	1	50	46.001	92	85 - 115	
Nickel	1	50	47.302	95	85 - 115	
Potassium	1	5000	4830.3	97	70 - 130	
Selenium	1	50	50.047	100	85 - 115	
Silver	1	50	50.612	101	85 - 115	
Sodium	1	5000	4826.6	97	70 - 130	
Uranium	1	50	44.838	90	70 - 130	
Vanadium	1	50	47.661	95	85 - 115	
Zinc	1	50	46.786	94	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755209
Analysis Date:	11/19/2014 9:15:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-73, -74, -75, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, -94		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
Aluminum	1	500	534.79	107	523.89	105	70 - 130		2	20
Arsenic	1	50	47.388	95	46.490	93	85 - 115		2	20
Barium	1	50	49.559	99	51.481	103	85 - 115		4	20
Boron	1	50	40.440	81	42.881	86	70 - 130		6	20
Cadmium	1	50	48.717	97	47.506	95	85 - 115		3	20
Calcium	1	5000	5034.8	101	4773.6	95	70 - 130		5	20
Chromium	1	50	50.343	101	48.917	98	85 - 115		3	20
Cobalt	1	50	48.380	97	46.855	94	85 - 115		3	20
Copper	1	50	47.963	96	46.937	94	85 - 115		2	20
Iron	1	500	488.12	98	480.33	96	85 - 115		2	20
Lead	1	50	47.292	95	46.780	94	85 - 115		1	20
Manganese	1	50	50.609	101	48.618	97	85 - 115		4	20
Molybdenum	1	50	47.474	95	46.001	92	85 - 115		3	20
Nickel	1	50	49.791	100	47.302	95	85 - 115		5	20
Potassium	1	5000	4980.6	100	4830.3	97	70 - 130		3	20
Selenium	1	50	47.628	95	50.047	100	85 - 115		5	20
Silver	1	50	51.256	103	50.612	101	85 - 115		1	20
Sodium	1	5000	4995.9	100	4826.6	97	70 - 130		3	20
Uranium	1	50	45.941	92	44.838	90	70 - 130		2	20
Vanadium	1	50	49.169	98	47.661	95	85 - 115		3	20
Zinc	1	50	47.769	96	46.786	94	85 - 115		2	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020	Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755211
Collection Date:	11/11/2014	Analyst:	664
Analysis Date:	11/20/2014 5:49:00 PM	Prep Date:	11/18/2014
Instrument ID:	ICPMS8		
Sample Numbers:	L733743-95, -96, -97, -98, -99, -160		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	528.12	106	70 - 130	
Arsenic	1	50	48.527	97	85 - 115	
Barium	1	50	50.406	101	85 - 115	
Boron	1	50	49.524	99	70 - 130	
Cadmium	1	50	50.463	101	85 - 115	
Calcium	1	5000	5022.7	100	70 - 130	
Chromium	1	50	51.403	103	85 - 115	
Cobalt	1	50	49.721	99	85 - 115	
Copper	1	50	49.932	100	85 - 115	
Iron	1	500	491.31	98	85 - 115	
Lead	1	50	50.968	102	85 - 115	
Manganese	1	50	51.683	103	85 - 115	
Molybdenum	1	50	49.408	99	85 - 115	
Nickel	1	50	50.191	100	85 - 115	
Potassium	1	5000	5071.5	101	70 - 130	
Selenium	1	50	47.191	94	85 - 115	
Silver	1	50	50.159	100	85 - 115	
Sodium	1	5000	4994.9	100	70 - 130	
Uranium	1	50	49.977	100	70 - 130	
Vanadium	1	50	51.021	102	85 - 115	
Zinc	1	50	48.766	98	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755211	
Collection Date:	11/11/2014	Analyst:	664	
Analysis Date:	11/20/2014 5:49:00 PM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-95, -96, -97, -98, -99, -160			

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	543.92	109	70 - 130	
Arsenic	1	50	50.834	102	85 - 115	
Barium	1	50	53.082	106	85 - 115	
Boron	1	50	52.064	104	70 - 130	
Cadmium	1	50	51.718	103	85 - 115	
Calcium	1	5000	5068.9	101	70 - 130	
Chromium	1	50	52.395	105	85 - 115	
Cobalt	1	50	51.760	104	85 - 115	
Copper	1	50	51.809	104	85 - 115	
Iron	1	500	511.25	102	85 - 115	
Lead	1	50	52.596	105	85 - 115	
Manganese	1	50	52.423	105	85 - 115	
Molybdenum	1	50	51.877	104	85 - 115	
Nickel	1	50	51.743	103	85 - 115	
Potassium	1	5000	5244.6	105	70 - 130	
Selenium	1	50	47.430	95	85 - 115	
Silver	1	50	51.510	103	85 - 115	
Sodium	1	5000	5139.8	103	70 - 130	
Uranium	1	50	52.169	104	70 - 130	
Vanadium	1	50	52.551	105	85 - 115	
Zinc	1	50	50.518	101	85 - 115	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020	Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755211
Collection Date:	11/11/2014	Analyst:	664
Analysis Date:	11/20/2014 5:49:00 PM	Prep Date:	11/18/2014
Instrument ID:	ICPMS8		
Sample Numbers:	L733743-95, -96, -97, -98, -99, -160		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
Aluminum	1	500	528.12	106	543.92	109	70 - 130		3	20
Arsenic	1	50	48.527	97	50.834	102	85 - 115		5	20
Barium	1	50	50.406	101	53.082	106	85 - 115		5	20
Boron	1	50	49.524	99	52.064	104	70 - 130		5	20
Cadmium	1	50	50.463	101	51.718	103	85 - 115		2	20
Calcium	1	5000	5022.7	100	5068.9	101	70 - 130		1	20
Chromium	1	50	51.403	103	52.395	105	85 - 115		2	20
Cobalt	1	50	49.721	99	51.760	104	85 - 115		4	20
Copper	1	50	49.932	100	51.809	104	85 - 115		4	20
Iron	1	500	491.31	98	511.25	102	85 - 115		4	20
Lead	1	50	50.968	102	52.596	105	85 - 115		3	20
Manganese	1	50	51.683	103	52.423	105	85 - 115		1	20
Molybdenum	1	50	49.408	99	51.877	104	85 - 115		5	20
Nickel	1	50	50.191	100	51.743	103	85 - 115		3	20
Potassium	1	5000	5071.5	101	5244.6	105	70 - 130		3	20
Selenium	1	50	47.191	94	47.430	95	85 - 115		1	20
Silver	1	50	50.159	100	51.510	103	85 - 115		3	20
Sodium	1	5000	4994.9	100	5139.8	103	70 - 130		3	20
Uranium	1	50	49.977	100	52.169	104	70 - 130		4	20
Vanadium	1	50	51.021	102	52.551	105	85 - 115		3	20
Zinc	1	50	48.766	98	50.518	101	85 - 115		4	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755434
Analysis Date:	11/20/2014 7:41:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/19/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum,Dissolved	1	500	506.04	101	70 - 130	
Arsenic,Dissolved	1	50	48.578	97	85 - 115	
Barium,Dissolved	1	50	47.748	95	85 - 115	
Boron,Dissolved	1	50	47.146	94	70 - 130	
Cadmium,Dissolved	1	50	47.935	96	85 - 115	
Calcium,Dissolved	1	5000	5173.0	103	70 - 130	
Chromium,Dissolved	1	50	52.593	105	85 - 115	
Cobalt,Dissolved	1	50	50.768	102	85 - 115	
Copper,Dissolved	1	50	54.742	109	85 - 115	
Iron,Dissolved	1	500	493.36	99	85 - 115	
Lead,Dissolved	1	50	52.756	106	85 - 115	
Manganese,Dissolved	1	50	52.204	104	85 - 115	
Molybdenum,Dissolved	1	50	49.097	98	85 - 115	
Nickel,Dissolved	1	50	50.746	101	85 - 115	
Potassium,Dissolved	1	5000	5182.7	104	70 - 130	
Selenium,Dissolved	1	50	45.036	90	85 - 115	
Silver,Dissolved	1	50	49.614	99	85 - 115	
Sodium,Dissolved	1	5000	5252.5	105	70 - 130	
Uranium,Dissolved	1	50	48.952	98	70 - 130	
Vanadium,Dissolved	1	50	50.843	102	85 - 115	
Zinc,Dissolved	1	50	50.877	102	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755434
Analysis Date:	11/20/2014 7:41:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/19/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum,Dissolved	1	500	504.86	101	70 - 130	
Arsenic,Dissolved	1	50	48.530	97	85 - 115	
Barium,Dissolved	1	50	47.359	95	85 - 115	
Boron,Dissolved	1	50	49.702	99	70 - 130	
Cadmium,Dissolved	1	50	48.077	96	85 - 115	
Calcium,Dissolved	1	5000	5108.7	102	70 - 130	
Chromium,Dissolved	1	50	51.516	103	85 - 115	
Cobalt,Dissolved	1	50	50.404	101	85 - 115	
Copper,Dissolved	1	50	50.817	102	85 - 115	
Iron,Dissolved	1	500	494.59	99	85 - 115	
Lead,Dissolved	1	50	52.996	106	85 - 115	
Manganese,Dissolved	1	50	50.280	101	85 - 115	
Molybdenum,Dissolved	1	50	48.461	97	85 - 115	
Nickel,Dissolved	1	50	49.938	100	85 - 115	
Potassium,Dissolved	1	5000	5043.6	101	70 - 130	
Selenium,Dissolved	1	50	47.003	94	85 - 115	
Silver,Dissolved	1	50	49.631	99	85 - 115	
Sodium,Dissolved	1	5000	5386.8	108	70 - 130	
Uranium,Dissolved	1	50	49.258	99	70 - 130	
Vanadium,Dissolved	1	50	50.032	100	85 - 115	
Zinc,Dissolved	1	50	50.054	100	85 - 115	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755434
Analysis Date:	11/20/2014 7:41:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/19/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
Aluminum,Dissolved	1	500	506.04	101	504.86	101	70 - 130		0	20
Arsenic,Dissolved	1	50	48.578	97	48.530	97	85 - 115		0	20
Barium,Dissolved	1	50	47.748	95	47.359	95	85 - 115		1	20
Boron,Dissolved	1	50	47.146	94	49.702	99	70 - 130		5	20
Cadmium,Dissolved	1	50	47.935	96	48.077	96	85 - 115		0	20
Calcium,Dissolved	1	5000	5173.0	103	5108.7	102	70 - 130		1	20
Chromium,Dissolved	1	50	52.593	105	51.516	103	85 - 115		2	20
Cobalt,Dissolved	1	50	50.768	102	50.404	101	85 - 115		1	20
Copper,Dissolved	1	50	54.742	109	50.817	102	85 - 115		7	20
Iron,Dissolved	1	500	493.36	99	494.59	99	85 - 115		0	20
Lead,Dissolved	1	50	52.756	106	52.996	106	85 - 115		0	20
Manganese,Dissolved	1	50	52.204	104	50.280	101	85 - 115		4	20
Molybdenum,Dissolved	1	50	49.097	98	48.461	97	85 - 115		1	20
Nickel,Dissolved	1	50	50.746	101	49.938	100	85 - 115		2	20
Potassium,Dissolved	1	5000	5182.7	104	5043.6	101	70 - 130		3	20
Selenium,Dissolved	1	50	45.036	90	47.003	94	85 - 115		4	20
Silver,Dissolved	1	50	49.614	99	49.631	99	85 - 115		0	20
Sodium,Dissolved	1	5000	5252.5	105	5386.8	108	70 - 130		3	20
Uranium,Dissolved	1	50	48.952	98	49.258	99	70 - 130		1	20
Vanadium,Dissolved	1	50	50.843	102	50.032	100	85 - 115		2	20
Zinc,Dissolved	1	50	50.877	102	50.054	100	85 - 115		2	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755200
Analysis Date:	11/18/2014 5:20:00 PM	Analyst:	117
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, -29		

Serial Dilution

L733743-02

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum	5	16.897	14.769	13	10	
Arsenic	5	0.8854	1.0512	19	10	
Barium	5	12.953	13.400	3	10	
Boron	5	135.10	129.16	4	10	
Cadmium	5	<0.16	<0.8		10	
Calcium	25	388611	439828	13	10	O1
Chromium	5	1.6579	2.1191	28	10	
Cobalt	5	<0.26	<1.3		10	
Copper	5	<0.52	<2.6		10	
Iron	5	<15	<75		10	
Lead	5	0.8742	1.0445	19	10	
Manganese	5	1.9670	0.8755	55	10	
Molybdenum	5	9.5703	11.631	22	10	
Nickel	25	<1.75	<8.75		10	
Potassium	5	2075.8	2392.4	15	10	
Selenium	5	7.4577	4.1087	45	10	
Silver	5	<0.31	<1.55		10	
Sodium	5	78780	94705	20	10	
Uranium	5	3.2344	3.6728	14	10	
Vanadium	5	6.6599	7.4903	12	10	
Zinc	5	<2.56	<12.8		10	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755200
Analysis Date:	11/18/2014 5:20:00 PM	Analyst:	117
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, -29		

Matrix Spike / Matrix Spike Duplicate

L733743-02

Analyte	Dil	Spike		MS	% Rec	MSD	% Rec	Control Limits	% Rec		Control Limits	RPD Qual
		Value	Sample						Qual	RPD		
Aluminum	1	500	16.897	546.33	106	530.61	103	70 - 130			3	20
Arsenic	1	50	0.8854	49.935	98	50.535	99	75 - 125			1	20
Barium	1	50	12.953	64.362	103	65.150	104	75 - 125			1	20
Boron	1	50	135.10	178.51	87	182.50	95	70 - 130			2	20
Cadmium	1	50	0.0284	48.487	97	48.727	97	75 - 125			0	20
Calcium	5	1000	388611	405596	340	412442	477	70 - 130	V		2	20
Chromium	1	50	1.6579	53.210	103	52.613	102	75 - 125			1	20
Cobalt	1	50	0.0464	50.333	101	49.777	99	75 - 125			1	20
Copper	1	50	0.3624	50.428	100	50.451	100	75 - 125			0	20
Iron	1	500	12.592	509.60	99	504.89	98	75 - 125			1	20
Lead	1	50	0.8742	50.689	100	50.724	100	75 - 125			0	20
Manganese	1	50	1.9670	52.022	100	50.954	98	75 - 125			2	20
Molybdenum	1	50	9.5703	61.249	103	60.753	102	75 - 125			1	20
Nickel	5	10	1.0310	55.606	109	55.687	109	75 - 125			0	20
Potassium	1	5000	2075.8	7100.6	100	6999.9	98	70 - 130			1	20
Selenium	1	50	7.4577	55.306	96	50.246	86	75 - 125			10	20
Silver	1	50	0.0042	50.890	102	52.168	104	75 - 125			2	20
Sodium	1	5000	78780	83626	97	83558	96	70 - 130			0	20
Uranium	1	50	3.2344	52.865	99	53.486	101	70 - 130			1	20
Vanadium	1	50	6.6599	58.324	103	58.321	103	75 - 125			0	20
Zinc	1	50	1.2602	48.521	95	48.637	95	75 - 125			0	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755201
Analysis Date:	11/20/2014 6:48:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49		

Serial Dilution

L733743-30

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum	5	141.01	162.93	16	10	
Arsenic	5	18.940	19.524	3	10	
Barium	5	21.187	21.620	2	10	
Boron	5	408.28	472.49	16	10	O1
Cadmium	5	<0.16	<0.8		10	
Calcium	100	751288	738860	2	10	
Chromium	5	0.9173	2.5120	174	10	
Cobalt	5	2.9784	3.3888	14	10	
Copper	5	1.0144	2.6431	161	10	
Iron	5	138.09	182.94	32	10	
Lead	5	0.9760	2.8173	189	10	
Manganese	5	2409.2	2518.3	5	10	
Molybdenum	5	25.236	26.214	4	10	
Nickel	5	29.744	47.392	59	10	
Potassium	5	4277.6	4719.4	10	10	
Selenium	5	1.5131	2.1556	42	10	
Silver	5	<0.31	<1.55		10	
Sodium	100	1220674	1202713	1	10	
Uranium	5	11.747	12.252	4	10	
Vanadium	5	17.998	17.673	2	10	
Zinc	5	1.4235	20.007	1305	10	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755201
Analysis Date:	11/20/2014 6:48:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49		

Matrix Spike / Matrix Spike Duplicate

L733743-30

Analyte	Dil	Spike		MS	% Rec	MSD	% Rec	Control Limits	% Rec		Control Limits	RPD
		Value	Sample						Qual	RPD		
Aluminum	1	500	141.01	665.49	105	664.49	105	70 - 130		0	20	
Arsenic	1	50	18.940	68.047	98	69.592	101	75 - 125		2	20	
Barium	1	50	21.187	73.705	105	70.223	98	75 - 125		5	20	
Boron	1	50	408.28	428.14	40	438.83	61	70 - 130	V	2	20	
Cadmium	1	50	0.1036	49.090	98	48.992	98	75 - 125		0	20	
Calcium	20	250	751288	740600	0	713708	0	70 - 130	V	4	20	
Chromium	1	50	0.9173	50.407	99	50.986	100	75 - 125		1	20	
Cobalt	1	50	2.9784	51.817	98	52.594	99	75 - 125		1	20	
Copper	1	50	1.0144	48.597	95	48.727	95	75 - 125		0	20	
Iron	1	500	138.09	635.42	99	642.89	101	75 - 125		1	20	
Lead	1	50	0.9760	48.246	95	48.179	94	75 - 125		0	20	
Manganese	1	50	2409.2	2435.0	52	2478.7	139	75 - 125	V	2	20	
Molybdenum	1	50	25.236	74.535	99	75.211	100	75 - 125		1	20	
Nickel	1	50	29.744	76.739	94	77.812	96	75 - 125		1	20	
Potassium	1	5000	4277.6	9320.4	101	9265.9	100	70 - 130		1	20	
Selenium	1	50	1.5131	51.554	100	53.174	103	75 - 125		3	20	
Silver	1	50	0.0971	50.018	100	49.108	98	75 - 125		2	20	
Sodium	20	250	1220674	1216246	0	1186635	0	70 - 130	V	2	20	
Uranium	1	50	11.747	58.307	93	57.484	91	70 - 130		1	20	
Vanadium	1	50	17.998	68.213	100	68.317	101	75 - 125		0	20	
Zinc	1	50	1.4235	46.139	89	48.767	95	75 - 125		6	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755204
Analysis Date:	11/25/2014 1:15:00 AM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-100, -101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118		

Serial Dilution

L733743-100

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum	5	33.620	47.812	42	10	
Arsenic	5	9.0094	9.2847	3	10	
Barium	5	424.24	412.41	3	10	
Boron	5	540.46	585.74	8	10	
Cadmium	5	<0.16	<0.8		10	
Calcium	50	196950	196237	0	10	
Chromium	5	1.3268	2.9193	120	10	
Cobalt	5	<0.26	<1.3		10	
Copper	5	1.0413	5.5174	430	10	
Lead	5	1.7750	2.3197	31	10	
Manganese	5	374.76	391.38	4	10	
Nickel	5	5.8998	20.820	253	10	
Potassium	5	607.56	668.26	10	10	
Selenium	5	22.018	10.172	54	10	O1
Silver	5	<0.31	<1.55		10	
Sodium	50	586498	594166	1	10	
Uranium	5	<0.33	<1.65		10	
Vanadium	5	0.6200	0.8263	33	10	
Zinc	5	33.802	79.222	134	10	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020	Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755204
Collection Date:	11/11/2014	Analyst:	664
Analysis Date:	11/25/2014 1:15:00 AM	Prep Date:	11/18/2014
Instrument ID:	ICPMS8		
Sample Numbers:	L733743-100, -101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118		

Matrix Spike / Matrix Spike Duplicate

L733743-100

Analyte	Dil	Spike		MS	% Rec	MSD	% Rec	Control Limits	% Rec		Control Limits	RPD
		Value	Sample						Qual	RPD		
Aluminum	1	500	33.620	540.29	101	561.92	106	70 - 130			4	20
Arsenic	1	50	9.0094	58.466	99	59.763	102	75 - 125			2	20
Barium	1	50	424.24	476.15	104	475.39	102	75 - 125			0	20
Boron	1	50	540.46	577.82	75	571.99	63	70 - 130	V		1	20
Cadmium	1	50	0.0286	50.782	102	50.697	101	75 - 125			0	20
Calcium	10	500	196950	205859	178	201131	84	70 - 130	V		2	20
Chromium	1	50	1.3268	50.484	98	50.375	98	75 - 125			0	20
Cobalt	1	50	0.0674	47.112	94	48.393	97	75 - 125			3	20
Copper	1	50	1.0413	46.301	91	48.108	94	75 - 125			4	20
Iron	1	500	21.063	488.08	93	508.00	97	75 - 125			4	20
Lead	1	50	1.7750	48.257	93	49.644	96	75 - 125			3	20
Manganese	1	50	374.76	415.43	81	426.10	103	75 - 125			3	20
Molybdenum	1	50	0.0249	46.664	93	49.021	98	75 - 125			5	20
Nickel	1	50	5.8998	50.111	88	50.718	90	75 - 125			1	20
Potassium	1	5000	607.56	5629.3	100	5605.8	100	70 - 130			0	20
Selenium	1	50	22.018	44.892	46	46.121	48	75 - 125	J6		3	20
Silver	1	50	0.0523	41.575	83	45.230	90	75 - 125			8	20
Sodium	10	500	586498	595942	189	584334	0	70 - 130	V		2	20
Uranium	1	50	0.0420	47.496	95	48.216	96	70 - 130			2	20
Vanadium	1	50	0.6200	50.951	101	51.417	102	75 - 125			1	20
Zinc	1	50	33.802	48.916	30	53.313	39	75 - 125	J6		9	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM		Analytic Batch:	WG755205
Collection Date:	11/11/2014	Analyst:	664	
Analysis Date:	12/1/2014 4:05:00 PM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138			

Serial Dilution

L733743-120

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum	5	153.95	201.37	31	10	
Arsenic	5	3.4030	3.4226	1	10	
Barium	5	15.136	14.404	5	10	
Boron	5	701.88	811.58	16	10	O1
Cadmium	5	<0.16	<0.8		10	
Calcium	50	694526	751632	8	10	
Chromium	5	0.8627	0.6665	23	10	
Cobalt	5	<0.26	<1.3		10	
Copper	5	1.2687	1.3842	9	10	
Iron	5	128.67	148.86	16	10	
Lead	5	0.2409	0.3547	47	10	
Manganese	5	30.084	31.936	6	10	
Molybdenum	5	9.7218	10.610	9	10	
Nickel	5	2.5976	5.6073	116	10	
Potassium	5	716.59	705.13	2	10	
Selenium	5	2.8283	3.6240	28	10	
Silver	5	<0.31	<1.55		10	
Sodium	50	336113	369022	10	10	
Uranium	5	101.39	108.02	7	10	
Vanadium	5	24.694	26.361	7	10	
Zinc	5	3.8852	7.0081	80	10	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755205
Analysis Date:	12/1/2014 4:05:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138		

Matrix Spike / Matrix Spike Duplicate

L733743-120

Analyte	Dil	Spike		MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
		Value	Sample									
Aluminum	1	500	153.95	655.02	100	670.96	103	70 - 130		2	20	
Arsenic	1	50	3.4030	56.725	107	54.566	102	75 - 125		4	20	
Barium	1	50	15.136	64.824	99	61.474	93	75 - 125		5	20	
Boron	1	50	701.88	735.96	68	742.85	82	70 - 130	V	1	20	
Cadmium	1	50	0.0446	49.611	99	49.005	98	75 - 125		1	20	
Calcium	10	500	694526	690183	0	720528	520	70 - 130	V	4	20	
Chromium	1	50	0.8627	53.863	106	52.960	104	75 - 125		2	20	
Cobalt	1	50	0.1230	52.247	104	49.603	99	75 - 125		5	20	
Copper	1	50	1.2687	52.279	102	50.125	98	75 - 125		4	20	
Iron	1	500	128.67	642.55	103	624.79	99	75 - 125		3	20	
Lead	1	50	0.2409	50.738	101	49.924	99	75 - 125		2	20	
Manganese	1	50	30.084	81.352	103	78.892	98	75 - 125		3	20	
Molybdenum	1	50	9.7218	65.227	111	62.382	105	75 - 125		4	20	
Nickel	1	50	2.5976	52.744	100	51.295	97	75 - 125		3	20	
Potassium	1	5000	716.59	5748.4	101	5584.1	97	70 - 130		3	20	
Selenium	1	50	2.8283	51.456	97	47.661	90	75 - 125		8	20	
Silver	1	50	0.1079	48.887	98	48.158	96	75 - 125		2	20	
Sodium	10	500	336113	340431	86	350069	279	70 - 130	V	3	20	
Uranium	1	50	101.39	158.51	114	157.13	111	70 - 130		1	20	
Vanadium	1	50	24.694	76.976	105	77.408	105	75 - 125		1	20	
Zinc	1	50	3.8852	48.982	90	47.473	87	75 - 125		3	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020	Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755207
Collection Date:	11/11/2014	Analyst:	117
Analysis Date:	12/1/2014 6:00:00 PM	Prep Date:	11/18/2014
Instrument ID:	ICPMS8		
Sample Numbers:	L733743-140, -141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158		

Serial Dilution

L733743-147

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum	5	80.723	112.56	39	10	
Arsenic	5	19.090	20.071	5	10	
Barium	5	126.39	130.96	4	10	
Boron	5	435.39	491.87	13	10	
Cadmium	5	<0.16	<0.8		10	
Calcium	25	205062	204124	0	10	
Chromium	5	0.6021	1.1048	83	10	
Cobalt	5	2.0848	1.9965	4	10	
Copper	5	<0.52	<2.6		10	
Iron	5	3519.6	3781.7	7	10	
Lead	5	0.7974	0.6225	22	10	
Manganese	5	385.44	413.09	7	10	
Molybdenum	5	1.4931	1.4836	1	10	
Nickel	5	3.7663	5.3726	43	10	
Potassium	5	461.14	399.40	13	10	
Selenium	5	<0.38	<1.9		10	
Silver	5	<0.31	<1.55		10	
Sodium	25	137058	141068	3	10	
Uranium	5	1.7979	1.7187	4	10	
Vanadium	5	1.0536	1.2378	17	10	
Zinc	5	<2.56	<12.8		10	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020	Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755207
Collection Date:	11/11/2014	Analyst:	117
Analysis Date:	12/1/2014 6:00:00 PM	Prep Date:	11/18/2014
Instrument ID:	ICPMS8		
Sample Numbers:	L733743-140, -141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158		

Matrix Spike / Matrix Spike Duplicate

L733743-147

Analyte	Dil	Spike		MS	% Rec	MSD	% Rec	Control Limits	% Rec		Control Limits	RPD
		Value	Sample						Qual	RPD		
Aluminum	1	500	80.723	615.10	107	635.34	111	70 - 130			3	20
Arsenic	1	50	19.090	70.557	103	69.784	101	75 - 125			1	20
Barium	1	50	126.39	181.84	111	180.43	108	75 - 125			1	20
Boron	1	50	435.39	473.02	75	477.04	83	70 - 130			1	20
Cadmium	1	50	0.0298	50.858	102	49.911	100	75 - 125			2	20
Calcium	5	1000	205062	210896	117	198435	0	70 - 130	V		6	20
Chromium	1	50	0.6021	52.641	104	53.354	106	75 - 125			1	20
Cobalt	1	50	2.0848	51.521	99	50.919	98	75 - 125			1	20
Copper	1	50	0.5158	49.316	98	48.483	96	75 - 125			2	20
Iron	1	500	3519.6	4014.1	99	3996.8	95	75 - 125			0	20
Lead	1	50	0.7974	51.242	101	51.535	101	75 - 125			1	20
Manganese	1	50	385.44	436.04	101	427.32	84	75 - 125			2	20
Molybdenum	1	50	1.4931	52.157	101	52.497	102	75 - 125			1	20
Nickel	1	50	3.7663	51.972	96	52.088	97	75 - 125			0	20
Potassium	1	5000	461.14	5528.4	101	5465.7	100	70 - 130			1	20
Selenium	1	50	0.2529	45.041	90	45.407	90	75 - 125			1	20
Silver	1	50	0.0715	19.355	39	20.191	40	75 - 125	J6		4	20
Sodium	5	1000	137058	142717	113	137662	12	70 - 130	V		4	20
Uranium	1	50	1.7979	52.829	102	52.963	102	70 - 130			0	20
Vanadium	1	50	1.0536	52.966	104	53.855	106	75 - 125			2	20
Zinc	1	50	1.6104	49.200	95	48.822	94	75 - 125			1	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004 Matrix: Water - ug/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG755207**
 Analysis Date: 12/1/2014 6:00:00 PM Analyst: 117
 Instrument ID: ICPMS8 Prep Date: 11/18/2014
 Sample Numbers: L733743-140, -141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158

Post Digest Spike

L733743-147

Analyte	Dil	Spike Value	Sample	Result	% Rec	Control Limits	Qualifier
Silver	1	50	0.0715	51.165	102	85-115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755208	
Collection Date:	11/11/2014	Analyst:	664	
Analysis Date:	11/18/2014 4:01:00 PM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-50, -51, -52, -53, -54, -55, -56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, -72			

Serial Dilution

L733743-50

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum	25	<10	<50		10	
Arsenic	25	5.4925	4.6539	15	10	
Barium	25	18.827	16.710	11	10	
Cadmium	25	<0.8	<4		10	
Calcium	100	763475	843401	10	10	
Chromium	25	<2.7	<13.5		10	
Cobalt	25	<1.3	<6.5		10	
Copper	25	<2.6	<13		10	
Iron	25	2226.4	2532.3	14	10	
Lead	25	<1.2	<6		10	
Manganese	25	156.95	176.37	12	10	O1
Molybdenum	25	3.4087	3.5199	3	10	
Nickel	25	2.6616	12.008	351	10	
Potassium	25	12707	14210	12	10	O1
Selenium	25	4.0208	2.0352	49	10	
Silver	25	<1.55	<7.75		10	
Sodium	100	1723140	1930324	12	10	O1
Uranium	25	3.8336	3.4971	9	10	
Vanadium	25	0.9741	0.3706	62	10	
Zinc	25	<12.8	<64		10	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755208
Analysis Date:	11/18/2014 4:01:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-50, -51, -52, -53, -54, -55, -56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, -72		

Matrix Spike / Matrix Spike Duplicate

L733743-50

Analyte	Dil	Spike		MS	% Rec	MSD	% Rec	Control Limits	% Rec		Control Limits	RPD Qual
		Value	Sample						Qual	RPD		
Aluminum	5	100	7.5669	567.99	112	574.09	113	70 - 130			1	20
Arsenic	5	10	5.4925	56.296	102	60.518	110	75 - 125			7	20
Barium	5	10	18.827	71.837	106	77.037	116	75 - 125			7	20
Boron	5	10	1289.6	1373.5	168	1552.4	526	70 - 130	V		12	20
Cadmium	5	10	0.1728	49.968	100	52.871	105	75 - 125			6	20
Calcium	20	250	763475	762995	0	822758	1186	70 - 130	V		8	20
Chromium	5	10	1.4979	52.273	102	56.703	110	75 - 125			8	20
Cobalt	5	10	0.2587	52.461	104	56.121	112	75 - 125			7	20
Copper	5	10	1.4116	53.353	104	55.619	108	75 - 125			4	20
Iron	5	100	2226.4	2778.0	110	2976.6	150	75 - 125	V		7	20
Lead	5	10	-2.055	48.915	98	51.354	103	75 - 125			5	20
Manganese	5	10	156.95	211.83	110	227.99	142	75 - 125	J5		7	20
Molybdenum	5	10	3.4087	56.507	106	59.748	113	75 - 125			6	20
Nickel	5	10	2.6616	55.941	107	57.311	109	75 - 125			2	20
Potassium	5	1000	12707	17495	96	19291	132	70 - 130	J5		10	20
Selenium	5	10	4.0208	49.689	91	60.539	113	75 - 125			20	20
Silver	5	10	0.3857	48.567	96	52.010	103	75 - 125			7	20
Sodium	20	250	1723140	1732500	187	1854762	2632	70 - 130	V		7	20
Uranium	5	10	3.8336	54.936	102	57.361	107	70 - 130			4	20
Vanadium	5	10	0.9741	52.262	103	59.543	117	75 - 125			13	20
Zinc	5	10	12.642	55.067	85	52.445	80	75 - 125			5	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755209
Analysis Date:	11/19/2014 9:15:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-73, -74, -75, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, -94		

Serial Dilution

L733743-73

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum	5	12.925	21.370	65	10	
Arsenic	5	10.228	10.746	5	10	
Barium	5	42.746	43.126	1	10	
Boron	5	1724.1	1950.4	13	10	O1
Cadmium	5	<0.16	<0.8		10	
Calcium	25	381430	317741	17	10	O1
Chromium	5	376.16	392.06	4	10	
Cobalt	5	0.2678	0.5066	89	10	
Copper	5	<0.52	<2.6		10	
Iron	5	93.369	119.89	28	10	
Lead	5	3.5445	4.4424	25	10	
Manganese	5	293.26	305.48	4	10	
Molybdenum	5	2.4015	2.7925	16	10	
Nickel	5	19.619	22.605	15	10	
Potassium	5	619.62	910.78	47	10	
Selenium	5	<0.38	<1.9		10	
Silver	5	<0.31	<1.55		10	
Sodium	50	527278	453453	14	10	O1
Uranium	5	1.1653	1.2241	5	10	
Vanadium	5	1.7776	2.0071	13	10	
Zinc	5	<2.56	<12.8		10	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755209
Analysis Date:	11/19/2014 9:15:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-73, -74, -75, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, -94		

Matrix Spike / Matrix Spike Duplicate

L733743-73

Analyte	Dil	Spike		MS	% Rec	MSD	% Rec	Control Limits	% Rec		Control Limits	RPD
		Value	Sample						Qual	RPD		
Aluminum	1	500	12.925	552.93	108	507.33	99	70 - 130			9	20
Arsenic	1	50	10.228	59.289	98	57.902	95	75 - 125			2	20
Barium	1	50	42.746	93.005	101	89.908	94	75 - 125			3	20
Boron	1	50	1724.1	1710.4	0	1713.9	0	70 - 130	V		0	20
Cadmium	1	50	0.0147	47.285	95	46.012	92	75 - 125			3	20
Calcium	5	1000	381430	350257	0	371035	0	70 - 130	V		6	20
Chromium	1	50	376.16	423.19	94	413.79	75	75 - 125			2	20
Cobalt	1	50	0.2678	46.774	93	47.080	94	75 - 125			1	20
Copper	1	50	0.4241	46.019	91	45.341	90	75 - 125			1	20
Iron	1	500	93.369	563.18	94	565.52	94	75 - 125			0	20
Lead	1	50	3.5445	50.117	93	48.349	90	75 - 125			4	20
Manganese	1	50	293.26	338.09	90	340.66	95	75 - 125			1	20
Molybdenum	1	50	2.4015	49.541	94	49.546	94	75 - 125			0	20
Nickel	1	50	19.619	64.594	90	64.920	91	75 - 125			1	20
Potassium	1	5000	619.62	5504.1	98	5354.9	95	70 - 130			3	20
Selenium	1	50	0.0779	47.289	94	48.140	96	75 - 125			2	20
Silver	1	50	0.0072	51.500	103	49.548	99	75 - 125			4	20
Sodium	10	500	527278	526610	0	504405	0	70 - 130	V		4	20
Uranium	1	50	1.1653	47.892	93	46.414	90	70 - 130			3	20
Vanadium	1	50	1.7776	50.608	98	48.623	94	75 - 125			4	20
Zinc	1	50	0.8348	46.659	92	45.956	90	75 - 125			2	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020	Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755211
Collection Date:	11/11/2014	Analyst:	664
Analysis Date:	11/20/2014 5:49:00 PM	Prep Date:	11/18/2014
Instrument ID:	ICPMS8		
Sample Numbers:	L733743-95, -96, -97, -98, -99, -160		

Serial Dilution

L733743-160

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum	5	11.546	169.25	1366	10	
Arsenic	5	<0.25	<1.25		10	
Barium	5	2.9236	4.3604	49	10	
Boron	5	18.936	1.0772	94	10	
Cadmium	5	<0.16	<0.8		10	
Calcium	5	335.11	332.97	1	10	
Chromium	5	<0.54	<2.7		10	
Cobalt	5	<0.26	<1.3		10	
Copper	5	<0.52	<2.6		10	
Iron	5	<15	<75		10	
Lead	5	<0.24	<1.2		10	
Manganese	5	6.0564	6.7789	12	10	
Molybdenum	5	<0.14	<0.7		10	
Nickel	5	0.7407	0.4698	37	10	
Potassium	5	<37	<185		10	
Selenium	5	0.6340	4.7990	657	10	
Silver	5	<0.31	<1.55		10	
Sodium	5	238.35	72.645	70	10	
Uranium	5	<0.33	<1.65		10	
Vanadium	5	<0.18	<0.9		10	
Zinc	5	<2.56	<12.8		10	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755211
Analysis Date:	11/20/2014 5:49:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-95, -96, -97, -98, -99, -160		

Matrix Spike / Matrix Spike Duplicate

L733743-160

Analyte	Dil	Spike		MS	% Rec	MSD	% Rec	Control Limits	% Rec		Control Limits	RPD Qual
		Value	Sample						Qual	RPD		
Aluminum	1	500	11.546	534.68	105	562.99	110	70 - 130		5	20	
Arsenic	1	50	0.0144	50.924	102	52.121	104	75 - 125		2	20	
Barium	1	50	2.9236	56.578	107	57.621	109	75 - 125		2	20	
Boron	1	50	18.936	70.847	104	74.952	112	70 - 130		6	20	
Cadmium	1	50	0.0097	51.635	103	53.738	107	75 - 125		4	20	
Calcium	1	5000	335.11	5564.5	105	5661.7	107	70 - 130		2	20	
Chromium	1	50	0.5372	53.686	106	53.805	107	75 - 125		0	20	
Cobalt	1	50	0.1161	52.029	104	52.843	105	75 - 125		2	20	
Copper	1	50	0.4281	52.585	104	52.842	105	75 - 125		0	20	
Iron	1	500	-8.561	571.36	114	518.71	104	75 - 125		10	20	
Lead	1	50	0.0998	52.336	104	53.721	107	75 - 125		3	20	
Manganese	1	50	6.0564	59.859	108	59.906	108	75 - 125		0	20	
Molybdenum	1	50	0.0228	51.040	102	51.308	103	75 - 125		1	20	
Nickel	1	50	0.7407	52.884	104	53.201	105	75 - 125		1	20	
Potassium	1	5000	30.245	5198.0	103	5297.9	105	70 - 130		2	20	
Selenium	1	50	0.6340	50.326	99	51.099	101	75 - 125		2	20	
Silver	1	50	0.0102	51.973	104	52.545	105	75 - 125		1	20	
Sodium	1	5000	238.35	5364.5	103	5463.8	105	70 - 130		2	20	
Uranium	1	50	0.0016	51.202	102	52.741	105	70 - 130		3	20	
Vanadium	1	50	0.0138	52.273	105	53.911	108	75 - 125		3	20	
Zinc	1	50	0.3990	49.074	97	49.774	99	75 - 125		1	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755434
Analysis Date:	11/20/2014 7:41:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/19/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15		

Serial Dilution

L733743-01

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum,Dissolved	25	<10	<50		10	
Arsenic,Dissolved	25	5.0344	5.0219	0	10	
Barium,Dissolved	25	27.805	23.183	17	10	
Boron,Dissolved	25	311.97	331.41	6	10	
Cadmium,Dissolved	25	<0.8	<4		10	
Calcium,Dissolved	250	1198233	1119488	7	10	
Chromium,Dissolved	25	<2.7	<13.5		10	
Cobalt,Dissolved	25	<1.3	<6.5		10	
Copper,Dissolved	25	<2.6	<13		10	
Iron,Dissolved	25	<75	<375		10	
Lead,Dissolved	25	<1.2	<6		10	
Manganese,Dissolved	25	128.80	111.14	14	10	O1
Molybdenum,Dissolved	25	12.118	12.811	6	10	
Nickel,Dissolved	25	2.9145	0.3469	88	10	
Potassium,Dissolved	25	7198.7	6149.7	15	10	
Selenium,Dissolved	25	29.063	31.486	8	10	
Silver,Dissolved	25	<1.55	<7.75		10	
Sodium,Dissolved	250	2593675	2599558	0	10	
Uranium,Dissolved	25	16.127	16.366	1	10	
Vanadium,Dissolved	25	11.270	10.063	11	10	
Zinc,Dissolved	25	20.450	-20.38	200	10	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020	Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755434
Collection Date:	11/11/2014	Analyst:	664
Analysis Date:	11/20/2014 7:41:00 PM	Prep Date:	11/19/2014
Instrument ID:	ICPMS8		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15		

Matrix Spike / Matrix Spike Duplicate

L733743-01

Analyte	Dil	Spike		MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
		Value	Sample									
Aluminum,Dissolved	5	100	-4.408	497.59	100	461.64	92	70 - 130		7	20	
Arsenic,Dissolved	5	10	5.0344	51.680	93	50.211	90	75 - 125		3	20	
Barium,Dissolved	5	10	27.805	69.081	83	68.136	81	75 - 125		1	20	
Boron,Dissolved	5	10	311.97	343.42	63	356.75	90	70 - 130	V	4	20	
Cadmium,Dissolved	5	10	0.1138	47.212	94	44.648	89	75 - 125		6	20	
Calcium,Dissolved	50	100	1198233	1207317	182	1192850	0	70 - 130	V	1	20	
Chromium,Dissolved	5	10	0.5143	48.780	97	44.688	88	75 - 125		9	20	
Cobalt,Dissolved	5	10	0.4366	46.344	92	44.506	88	75 - 125		4	20	
Copper,Dissolved	5	10	0.9282	46.885	92	43.937	86	75 - 125		6	20	
Iron,Dissolved	5	100	-71.49	389.28	78	366.48	73	75 - 125	J6	6	20	
Lead,Dissolved	5	10	1.1616	51.923	102	52.344	102	75 - 125		1	20	
Manganese,Dissolved	5	10	128.80	172.08	87	162.02	66	75 - 125	J6	6	20	
Molybdenum,Dissolved	5	10	12.118	57.443	91	56.916	90	75 - 125		1	20	
Nickel,Dissolved	5	10	2.9145	47.927	90	46.286	87	75 - 125		3	20	
Potassium,Dissolved	5	1000	7198.7	11792	92	11267	81	70 - 130		5	20	
Selenium,Dissolved	5	10	29.063	70.325	83	69.668	81	75 - 125		1	20	
Silver,Dissolved	5	10	0.4803	47.171	93	45.875	91	75 - 125		3	20	
Sodium,Dissolved	50	100	2593675	2584216	0	2533656	0	70 - 130	V	2	20	
Uranium,Dissolved	5	10	16.127	64.924	98	65.126	98	70 - 130		0	20	
Vanadium,Dissolved	5	10	11.270	59.373	96	56.352	90	75 - 125		5	20	
Zinc,Dissolved	5	10	20.450	40.208	40	38.005	35	75 - 125	J6	6	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756145
Analysis Date:	11/24/2014 6:51:00 PM	Analyst:	117
Instrument ID:	ICPMS8	Prep Date:	11/21/2014
Sample Numbers:	L733743-33, -35, -36, -37, -39, -43, -44, -45		

Serial Dilution

L733743-33

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Chromium	5	0.5494	0.5732	4	10	

Matrix Spike / Matrix Spike Duplicate

L733743-33

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chromium	1	50	0.5494	49.333	98	50.652	100	75 - 125	3	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754942
Analysis Date:	11/18/2014 11:09:00 AM	Analyst:	621
Instrument ID:	VOCGC4		
Sample Numbers:	L733743-01, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.0837	92.4	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.9147	89.4	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Qual	% RPD	Control RPD Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.0837	92.4	4.9147	89.4	67 - 132	3.38		20		



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754943
Analysis Date:	11/20/2014 5:40:00 AM	Analyst:	621
Instrument ID:	VOCGC7		
Sample Numbers:	L733743-30, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49, -50		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	3.8540	70.1	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	3.8043	69.2	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
TPH (GC/FID) Low Fraction	1	5.5	3.8540	70.1	3.8043	69.2	67 - 132	1.3	20	

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754944
Analysis Date:	11/20/2014 6:34:00 AM	Analyst:	621
Instrument ID:	VOCGC6		
Sample Numbers:	L733743-51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -66, -71, -75		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.4589	81.1	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.5536	82.8	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	RPD	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.4589	81.1	4.5536	82.8	67 - 132	2.1	20		



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754945
Analysis Date:	11/20/2014 9:35:00 AM	Analyst:	621
Instrument ID:	VOCGC4		
Sample Numbers:	L733743-94, -95, -96, -97, -98, -100, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.4498	80.9	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.5882	83.4	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.4498	80.9	4.5882	83.4	67 - 132	3.06	20	

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754946
Analysis Date:	11/20/2014 5:40:00 AM	Analyst:	621
Instrument ID:	VOCGC1		
Sample Numbers:	L733743-113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.9217	89.5	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.8755	88.6	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	RPD	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.9217	89.5	4.8755	88.6	67 - 132	0.94	20		



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754947
Analysis Date:	11/21/2014 12:26:00 PM	Analyst:	621
Instrument ID:	VOCGC7		
Sample Numbers:	L733743-135, -136, -137, -138, -143, -145, -146, -147, -151, -152, -153, -154, -155, -156, -157, -158		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.3597	97.4	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.2829	96.1	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.3597	97.4	5.2829	96.1	67 - 132	1.44	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754948
Analysis Date:	11/19/2014 4:45:00 AM	Analyst:	621
Instrument ID:	VOCGC12		
Sample Numbers:	L733743-159, -160		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.8335	87.9	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.7966	87.2	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.8335	87.9	4.7966	87.2	67 - 132	0.77	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755413
Collection Date:	11/11/2014	Analyst:	621
Analysis Date:	11/19/2014 2:58:00 PM		
Instrument ID:	VOCGC4		
Sample Numbers:	L733743-02		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.6972	85.4	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.8005	87.3	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.6972	85.4	4.8005	87.3	67 - 132	2.18	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755883
Analysis Date:	11/21/2014 12:32:00 AM	Analyst:	621
Instrument ID:	VOCGC6		
Sample Numbers:	L733743-03, -04, -05, -06, -07, -08, -09, -29, -79, -93, -99		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	6.5553	119	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	6.8755	125	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
TPH (GC/FID) Low Fraction	1	5.5	6.5553	119	6.8755	125	67 - 132	4.77	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755923
Analysis Date:	11/21/2014 11:32:00 AM	Analyst:	621
Instrument ID:	VOCGC12		
Sample Numbers:	L733743-69, -70, -72, -73, -74		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.7254	104	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.6209	102	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Qual	% RPD	Control RPD Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.7254	104	5.6209	102	67 - 132	1.84		20		



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756173
Analysis Date:	11/22/2014 5:58:00 PM	Analyst:	621
Instrument ID:	VOCGC12		
Sample Numbers:	L733743-133, -148, -149, -150		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.4556	99.2	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.4438	99	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Qual	% RPD	Control RPD Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.4556	99.2	5.4438	99	67 - 132	0.22		20		



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754942
Analysis Date:	11/18/2014 11:09:00 AM	Analyst:	621
Instrument ID:	VOCGC4		
Sample Numbers:	L733743-01, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28		

Matrix Spike / Matrix Spike Duplicate

L733743-01

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	1	5.5	0.0385	4.9774	89.8	4.8117	86.8	50 - 143	3.39	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754943
Analysis Date:	11/20/2014 5:40:00 AM	Analyst:	621
Instrument ID:	VOCGC7		
Sample Numbers:	L733743-30, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49, -50		

Matrix Spike / Matrix Spike Duplicate

L733743-30

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	1	5.5	0.9060	4.8078	70.9	4.7590	70.1	50 - 143		1.02		20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754944
Analysis Date:	11/20/2014 6:34:00 AM	Analyst:	621
Instrument ID:	VOCGC6		
Sample Numbers:	L733743-51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -66, -71, -75		

Matrix Spike / Matrix Spike Duplicate

L733743-51

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	1	5.5	0.0	4.6587	84.7	4.9269	89.6	50 - 143	5.6		20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754945
Analysis Date:	11/20/2014 9:35:00 AM	Analyst:	621
Instrument ID:	VOCGC4		
Sample Numbers:	L733743-94, -95, -96, -97, -98, -100, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112		

Matrix Spike / Matrix Spike Duplicate

L733743-102

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	1	5.5	0.0320	4.4774	80.8	4.4880	81	50 - 143		0.24		20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754946
Analysis Date:	11/20/2014 5:40:00 AM	Analyst:	621
Instrument ID:	VOCGC1		
Sample Numbers:	L733743-113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131		

Matrix Spike / Matrix Spike Duplicate

L733743-123

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	1	5.5	0.0148	3.8758	70.2	3.8603	69.9	50 - 143	0.4	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test: Volatile TPH by Method 8015D/GRO
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754947**
 Analysis Date: 11/21/2014 12:26:00 PM Analyst: 621
 Instrument ID: VOGC7
 Sample Numbers: L733743-135, -136, -137, -138, -143, -145, -146, -147, -151, -152, -153, -154, -155, -156, -157, -158

Matrix Spike / Matrix Spike Duplicate

L733743-153

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	1	5.5	0.0138	5.2435	95.1	5.5805	101	50 - 143	6.23	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754948
Analysis Date:	11/19/2014 4:45:00 AM	Analyst:	621
Instrument ID:	VOCGC12		
Sample Numbers:	L733743-159, -160		

Matrix Spike / Matrix Spike Duplicate

L733743-159

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	1	5.5	0.0	4.9202	89.5	4.6411	84.4	50 - 143	5.84	20		



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test: Volatile TPH by Method 8015D/GRO
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG755413**
 Analysis Date: 11/19/2014 2:58:00 PM Analyst: 621
 Instrument ID: VOCGC4
 Sample Numbers: L733743-02

Matrix Spike / Matrix Spike Duplicate

L733020-03

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual RPD	Control Limits	RPD Qual
TPH (GC/FID) Low Fraction	1	5.5	0.0222	4.6873	84.8	4.7539	86	50 - 143	1.41	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test: Volatile TPH by Method 8015D/GRO
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG755883**
 Analysis Date: 11/21/2014 12:32:00 AM Analyst: 621
 Instrument ID: VOCGC6
 Sample Numbers: L733743-03, -04, -05, -06, -07, -08, -09, -29, -79, -93, -99

Matrix Spike / Matrix Spike Duplicate

L733869-15

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD	
TPH (GC/FID) Low Fraction	50	5.5	57.800	481.75	154	389.43	121	50 - 143	J5	21.2	20	J3



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755923
Analysis Date:	11/21/2014 11:32:00 AM	Analyst:	621
Instrument ID:	VOCGC12		
Sample Numbers:	L733743-69, -70, -72, -73, -74		

Matrix Spike / Matrix Spike Duplicate

L733743-69

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual RPD	Control Limits	RPD Qual
TPH (GC/FID) Low Fraction	1	5.5	1.0057	6.0704	92.1	6.4498	99	50 - 143	6.06	20



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test: Volatile TPH by Method 8015D/GRO
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG756173**
 Analysis Date: 11/22/2014 5:58:00 PM Analyst: 621
 Instrument ID: VOCGC12
 Sample Numbers: L733743-133, -148, -149, -150

Matrix Spike / Matrix Spike Duplicate

L733869-44

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	1	5.5	0.0	5.3569	97.4	5.3869	97.9	50 - 143		0.56	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754942
Analysis Date:	11/18/2014 11:09:00 AM	Analyst:	621
Instrument ID:	VOCGC4		
Sample Numbers:	L733743-01, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28		

Surrogate Summary

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec
L733743-01	VOCGC4	1117_43	0.216	108
L733743-10	VOCGC4	1117_57	0.218	109
L733743-11	VOCGC4	1117_58	0.218	109
L733743-12	VOCGC4	1117_59	0.217	109
L733743-13	VOCGC4	1117_60	0.218	109
L733743-14	VOCGC4	1117_61	0.218	109
L733743-15	VOCGC4	1117_62	0.218	109
L733743-25	VOCGC4	1117_63	0.218	109
L733743-26	VOCGC4	1117_64	0.222	111
L733743-27	VOCGC4	1117_65	0.221	110
L733743-28	VOCGC4	1117_66	0.219	109
LCS WG754942	VOCGC4	1117_37	0.219	109
LCSD WG754942	VOCGC4	1117_38	0.220	110
MS WG754942	VOCGC4	1117_39	0.218	109
MSD WG754942	VOCGC4	1117_40	0.216	108
BLANK WG754942	VOCGC4	1117_42	0.217	108

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754943
Analysis Date:	11/20/2014 5:40:00 AM	Analyst:	621
Instrument ID:	VOCGC7		
Sample Numbers:	L733743-30, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49, -50		

Surrogate Summary

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec
L733743-30	VOCGC7	1119_44	0.195	97.5
L733743-32	VOCGC7	1119_45	0.196	98.2
L733743-33	VOCGC7	1119_46	0.196	98.2
L733743-34	VOCGC7	1119_47	0.196	98.1
L733743-35 5x	VOCGC7	1119_48	0.198	99.0
L733743-36 5x	VOCGC7	1119_49	0.198	99.2
L733743-37	VOCGC7	1119_50	0.202	101
L733743-38	VOCGC7	1119_51	0.195	97.7
L733743-39	VOCGC7	1119_52	0.195	97.7
L733743-40	VOCGC7	1119_53	0.196	98.2
L733743-41	VOCGC7	1119_58	0.194	97.2
L733743-42	VOCGC7	1119_59	0.195	97.7
L733743-43	VOCGC7	1119_60	0.196	98.2
L733743-44	VOCGC7	1119_61	0.195	97.7
L733743-45	VOCGC7	1119_62	0.195	97.7
L733743-46	VOCGC7	1119_63	0.196	98.2
L733743-47	VOCGC7	1119_64	0.196	98.0
L733743-48	VOCGC7	1119_65	0.194	97.2
L733743-49	VOCGC7	1119_66	0.195	97.4
L733743-50	VOCGC7	1119_67	0.195	97.7
LCS WG754943	VOCGC7	1119_38	0.208	104
LCSD WG754943	VOCGC7	1119_39	0.207	104
MS WG754943	VOCGC7	1119_40	0.207	104
MSD WG754943	VOCGC7	1119_41	0.207	103
BLANK WG754943	VOCGC7	1119_43	0.196	98.0

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754944
Analysis Date:	11/20/2014 6:34:00 AM	Analyst:	621
Instrument ID:	VOCGC6		
Sample Numbers:	L733743-51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -66, -71, -75		

Surrogate Summary

Laboratory	Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec
	L733743-51	VOCGC6	1119_47	0.198	98.8		
	L733743-52	VOCGC6	1119_48	0.197	98.6		
	L733743-53	VOCGC6	1119_49	0.198	98.8		
	L733743-54	VOCGC6	1119_50	0.197	98.5		
	L733743-55	VOCGC6	1119_51	0.197	98.7		
	L733743-57	VOCGC6	1119_52	0.197	98.5		
	L733743-58	VOCGC6	1119_53	0.197	98.7		
	L733743-59	VOCGC6	1119_54	0.198	99.1		
	L733743-60	VOCGC6	1119_55	0.198	98.9		
	L733743-61	VOCGC6	1119_56	0.197	98.7		
	L733743-62	VOCGC6	1119_62	0.197	98.7		
	L733743-63	VOCGC6	1119_63	0.198	98.9		
	L733743-66	VOCGC6	1119_64	0.198	98.8		
	L733743-71 25x	VOCGC6	1119_67	0.199	99.3		
	L733743-75	VOCGC6	1119_71	0.198	98.9		
	LCS WG754944	VOCGC6	1119_41	0.197	98.6	0.202	101
	LCSD WG754944	VOCGC6	1119_42	0.197	98.4	0.202	101
	MS WG754944	VOCGC6	1119_43	0.197	98.4	0.203	102
	MSD WG754944	VOCGC6	1119_44	0.197	98.5	0.203	102
	BLANK WG754944	VOCGC6	1119_46	0.197	98.5	0.202	101

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754945
Analysis Date:	11/20/2014 9:35:00 AM	Analyst:	621
Instrument ID:	VOCGC4		
Sample Numbers:	L733743-94, -95, -96, -97, -98, -100, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112		

Surrogate Summary

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec
L733743-100 10x	VOCGC4	1119_44	0.231	116
L733743-102	VOCGC4	1119_43	0.228	114
L733743-103	VOCGC4	1119_45	0.228	114
L733743-104 5x	VOCGC4	1119_46	0.232	116
L733743-105 100x	VOCGC4	1119_47	0.229	115
L733743-106 25x	VOCGC4	1119_48	0.224	112
L733743-107 10x	VOCGC4	1119_49	0.233	117
L733743-108	VOCGC4	1119_50	0.229	114
L733743-109 10x	VOCGC4	1119_51	0.232	116
L733743-110 50x	VOCGC4	1119_52	0.230	115
L733743-111 100x	VOCGC4	1119_58	0.229	115
L733743-112 10x	VOCGC4	1119_59	0.234	117
L733743-94	VOCGC4	1119_62	0.230	115
L733743-95	VOCGC4	1119_63	0.230	115
L733743-96	VOCGC4	1119_64	0.230	115
L733743-97 100x	VOCGC4	1119_65	0.230	115
L733743-98 10x	VOCGC4	1119_66	0.244	122
LCS WG754945	VOCGC4	1119_37	0.230	115
LCSD WG754945	VOCGC4	1119_38	0.225	113
MS WG754945	VOCGC4	1119_39	0.228	114
MSD WG754945	VOCGC4	1119_40	0.228	114
BLANK WG754945	VOCGC4	1119_42	0.228	114

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754946
Analysis Date:	11/20/2014 5:40:00 AM	Analyst:	621
Instrument ID:	VOCGC1		
Sample Numbers:	L733743-113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131		

Surrogate Summary

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec
L733743-113 25x	VOCGC1	1119_52	0.199	99.3		
L733743-114 25x	VOCGC1	1119_53	0.201	101		
L733743-115	VOCGC1	1119_54	0.159	79.3		
L733743-116	VOCGC1	1119_55	0.193	96.4		
L733743-117	VOCGC1	1119_56	0.196	98.0		
L733743-118	VOCGC1	1119_57	0.183	91.4		
L733743-119	VOCGC1	1119_58	0.199	99.3		
L733743-120	VOCGC1	1119_59	0.197	98.7		
L733743-121	VOCGC1	1119_60	0.198	98.9		
L733743-122	VOCGC1	1119_65	0.198	99.2		
L733743-123	VOCGC1	1119_51	0.197	98.7		
L733743-124	VOCGC1	1119_66	0.198	99.1		
L733743-125	VOCGC1	1119_67	0.198	99.1		
L733743-126	VOCGC1	1119_68	0.200	99.8		
L733743-127	VOCGC1	1119_69	0.199	99.4		
L733743-128 10x	VOCGC1	1119_70	0.194	97.2		
L733743-129	VOCGC1	1119_71	0.195	97.3		
L733743-130	VOCGC1	1119_72	0.199	99.5		
L733743-131 25x	VOCGC1	1119_73	0.197	98.4		
L733743-132	VOCGC1	1119_74	0.198	99.0		
LCS WG754946	VOCGC1	1119_45	0.198	99.2	0.231	116
LCSD WG754946	VOCGC1	1119_46	0.202	101	0.231	115
MS WG754946	VOCGC1	1119_47	0.195	97.7	0.223	112
MSD WG754946	VOCGC1	1119_48	0.199	99.5	0.223	112
BLANK WG754946	VOCGC1	1119_50	0.200	100	0.212	106

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754947
Analysis Date:	11/21/2014 12:26:00 PM	Analyst:	621
Instrument ID:	VOCGC7		
Sample Numbers:	L733743-135, -136, -137, -138, -143, -145, -146, -147, -151, -152, -153, -154, -155, -156, -157, -158		

Surrogate Summary

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec
L733743-135 100x	VOCGC7	1120_45	0.194	97.2
L733743-136 50x	VOCGC7	1120_46	0.196	98.1
L733743-137 50x	VOCGC7	1120_47	0.194	97.0
L733743-138 50x	VOCGC7	1120_48	0.195	97.6
L733743-143 50x	VOCGC7	1120_49	0.194	97.1
L733743-145 100x	VOCGC7	1120_50	0.195	97.6
L733743-146 20x	VOCGC7	1120_51	0.197	98.4
L733743-147 50x	VOCGC7	1120_52	0.196	98.0
L733743-151 10x	VOCGC7	1120_60	0.193	96.7
L733743-152 10x	VOCGC7	1120_61	0.194	97.2
L733743-153	VOCGC7	1120_43	0.195	97.7
L733743-154	VOCGC7	1120_62	0.196	97.8
L733743-155	VOCGC7	1120_63	0.196	98.1
L733743-156	VOCGC7	1120_64	0.197	98.6
L733743-157	VOCGC7	1120_65	0.197	98.4
L733743-158	VOCGC7	1120_66	0.197	98.5
LCS WG754947	VOCGC7	1120_37	0.215	107
LCSD WG754947	VOCGC7	1120_38	0.213	107
MS WG754947	VOCGC7	1120_39	0.213	107
MSD WG754947	VOCGC7	1120_40	0.215	108
BLANK WG754947	VOCGC7	1120_42	0.196	98.1

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754948
Analysis Date:	11/19/2014 4:45:00 AM	Analyst:	621
Instrument ID:	VOCGC12		
Sample Numbers:	L733743-159, -160		

Surrogate Summary

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec
L733743-159	VOCGC12	1118_45	0.201	101		
L733743-160	VOCGC12	1118_49	0.203	101		
LCS WG754948	VOCGC12	1118_38	0.197	98.7	0.206	103
LCSD WG754948	VOCGC12	1118_39	0.198	98.9	0.206	103
MS WG754948	VOCGC12	1118_40	0.197	98.6	0.208	104
MSD WG754948	VOCGC12	1118_41	0.196	98.2	0.205	103
BLANK WG754948	VOCGC12	1118_43	0.203	101	0.205	103

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755413
Analysis Date:	11/19/2014 2:58:00 PM	Analyst:	621
Instrument ID:	VOCGC4		
Sample Numbers:	L733743-02		

Surrogate Summary

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec
L733743-02	VOCGC4	1119_19	0.225	112
LCS WG755413	VOCGC4	1119_04	0.227	113
LCSD WG755413	VOCGC4	1119_05	0.227	113
MS WG755413	VOCGC4	1119_06	0.225	113
MSD WG755413	VOCGC4	1119_07	0.226	113
BLANK WG755413	VOCGC4	1119_09	0.224	112

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755883
Analysis Date:	11/21/2014 12:32:00 AM	Analyst:	621
Instrument ID:	VOCGC6		
Sample Numbers:	L733743-03, -04, -05, -06, -07, -08, -09, -29, -79, -93, -99		

Surrogate Summary

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec
L733743-03	VOCGC6	1120_17	0.198	98.9		
L733743-04	VOCGC6	1120_18	0.198	99.1		
L733743-05	VOCGC6	1120_19	0.198	99.2		
L733743-06	VOCGC6	1120_20	0.198	98.8		
L733743-07	VOCGC6	1120_21	0.197	98.7		
L733743-08	VOCGC6	1120_22	0.198	98.8		
L733743-09	VOCGC6	1120_23	0.198	98.8		
L733743-29	VOCGC6	1120_24	0.198	98.8		
L733743-79	VOCGC6	1120_25	0.198	98.9		
L733743-93	VOCGC6	1120_30	0.195	97.7		
L733743-99	VOCGC6	1120_31	0.197	98.4		
LCS WG755883	VOCGC6	1120_04	0.198	98.9	0.202	101
LCS WG755883	VOCGC6	1120_06	0.199	99.7	0.203	101
LCSD WG755883	VOCGC6	1120_07	0.199	99.5	0.204	102
LCSD WG755883	VOCGC6	1120_08	0.198	99.1	0.202	101
MS WG755883	VOCGC6	1120_09	0.196	97.8	0.201	100
MSD WG755883	VOCGC6	1120_10	0.196	97.8	0.201	100
MS WG755883	VOCGC6	1120_11	0.204	102	0.208	104
MSD WG755883	VOCGC6	1120_12	0.201	101	0.206	103
BLANK WG755883	VOCGC6	1120_15	0.198	98.9	0.203	101

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755923
Analysis Date:	11/21/2014 11:32:00 AM	Analyst:	621
Instrument ID:	VOCGC12		
Sample Numbers:	L733743-69, -70, -72, -73, -74		

Surrogate Summary

Laboratory	Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec
	L733743-69	VOCGC12	1121_16	0.184	92.0		
	L733743-70	VOCGC12	1121_17	0.201	101		
	L733743-72	VOCGC12	1121_18	0.183	91.5		
	L733743-73	VOCGC12	1121_19	0.176	88.1		
	L733743-74	VOCGC12	1121_20	0.180	89.9		
	LCS WG755923	VOCGC12	1121_04	0.201	100	0.201	101
	LCSD WG755923	VOCGC12	1121_05	0.201	100	0.202	101
	LCS WG755923	VOCGC12	1121_06	0.196	97.9	0.204	102
	LCSD WG755923	VOCGC12	1121_07	0.196	97.9	0.203	102
	MS WG755923	VOCGC12	1121_08	0.200	100	0.202	101
	MSD WG755923	VOCGC12	1121_09	0.200	100	0.201	100
	MS WG755923	VOCGC12	1121_10	0.185	92.5	0.197	98.7
	MSD WG755923	VOCGC12	1121_11	0.184	92.2	0.196	98.2
	BLANK WG755923	VOCGC12	1121_13	0.202	101	0.204	102

--A,A,A-TRIFLUOROTOLUENE(FID)
 --A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 62 - 128
 True Value: 0.2 ppm Limits: 55 - 122



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756173
Analysis Date:	11/22/2014 5:58:00 PM	Analyst:	621
Instrument ID:	VOCGC12		
Sample Numbers:	L733743-133, -148, -149, -150		

Surrogate Summary

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec
L733743-133	VOCGC12	1122_17	0.201	100		
L733743-148	VOCGC12	1122_18	0.184	92.1		
L733743-149	VOCGC12	1122_19	0.182	91.1		
L733743-150	VOCGC12	1122_20	0.201	100		
LCS WG756173	VOCGC12	1122_04	0.202	101	0.202	101
LCSD WG756173	VOCGC12	1122_05	0.202	101	0.202	101
LCSD WG756173	VOCGC12	1122_07	0.197	98.5	0.203	102
MS WG756173	VOCGC12	1122_08	0.199	99.3	0.203	102
MSD WG756173	VOCGC12	1122_09	0.199	99.6	0.203	102
MS WG756173	VOCGC12	1122_10	0.195	97.6	0.204	102
MSD WG756173	VOCGC12	1122_11	0.194	96.8	0.202	101
BLANK WG756173	VOCGC12	1122_13	0.202	101	0.204	102
LCS WG756173	VOCGC12	1122_06	0.195	97.6	0.203	101

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754909
Analysis Date:	11/21/2014 11:52:00 AM	Analyst:	644
Instrument ID:	VOCMS20		
Sample Numbers:	L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754909
Analysis Date:	11/21/2014 11:52:00 AM	Analyst:	644
Instrument ID:	VOCMS20		
Sample Numbers:	L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754914
Analysis Date:	11/17/2014 2:20:00 AM	Analyst:	644
Instrument ID:	VOCMS14		
Sample Numbers:	L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754914
Analysis Date:	11/17/2014 2:20:00 AM	Analyst:	644
Instrument ID:	VOCMS14		
Sample Numbers:	L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754915
Analysis Date:	11/19/2014 3:01:00 PM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754915
Analysis Date:	11/19/2014 3:01:00 PM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754916
Analysis Date:	11/22/2014 3:10:00 AM	Analyst:	644
Instrument ID:	VOCMS7		
Sample Numbers:	L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754916
Analysis Date:	11/22/2014 3:10:00 AM	Analyst:	644
Instrument ID:	VOCMS7		
Sample Numbers:	L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754917
Analysis Date:	11/19/2014 3:06:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	0.00109	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754917
Analysis Date:	11/19/2014 3:06:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754918
Analysis Date:	11/20/2014 5:53:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754918
Analysis Date:	11/20/2014 5:53:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754919
Analysis Date:	11/21/2014 10:42:00 PM	Analyst:	644
Instrument ID:	VOCMS13		
Sample Numbers:	L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754919
Analysis Date:	11/21/2014 10:42:00 PM	Analyst:	644
Instrument ID:	VOCMS13		
Sample Numbers:	L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755736
Analysis Date:	11/20/2014 4:24:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755736
Analysis Date:	11/20/2014 4:24:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0277	111	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0312	125	73.2 - 123	J4
1,1,2,2-Tetrachloroethane	1	0.025	0.0260	104	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0240	96	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0285	114	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0293	117	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0279	112	75 - 123	
1,2-Dibromoethane	1	0.025	0.0236	94.5	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0263	105	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0272	109	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0280	112	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1124	89.9	55 - 149	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1244	99.5	70.5 - 133	
Acetone	1	0.125	0.1146	91.6	35.6 - 163	
Benzene	1	0.025	0.0256	102	74.8 - 121	
Bromodichloromethane	1	0.025	0.0291	116	75.1 - 116	
Bromoform	1	0.025	0.0249	99.4	67.5 - 130	
Bromomethane	1	0.025	0.0320	128	49.9 - 162	
Carbon tetrachloride	1	0.025	0.0301	120	70.2 - 123	
Chlorobenzene	1	0.025	0.0261	104	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0242	96.6	74 - 121	
Chloroethane	1	0.025	0.0284	114	61.7 - 135	
Chloroform	1	0.025	0.0295	118	76 - 121	
Chloromethane	1	0.025	0.0262	105	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0278	111	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0273	109	78.2 - 120	
Ethylbenzene	1	0.025	0.0263	105	78.8 - 122	
Isopropylbenzene	1	0.025	0.0279	112	78.6 - 132	
m&p-Xylenes	1	0.05	0.0534	107	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0282	113	71.2 - 126	
Methylene Chloride	1	0.025	0.0261	104	70.3 - 120	
Naphthalene	1	0.025	0.0248	99.3	68.4 - 128	
n-Butylbenzene	1	0.025	0.0294	118	76.2 - 126	
n-Propylbenzene	1	0.025	0.0271	108	78.2 - 122	
o-Xylene	1	0.025	0.0266	106	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0286	114	74 - 131	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
sec-Butylbenzene	1	0.025	0.0280	112	74.4 - 127	
Styrene	1	0.025	0.0275	110	80.4 - 126	
Tetrachloroethene	1	0.025	0.0252	101	72.6 - 126	
Toluene	1	0.025	0.0257	103	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0286	115	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0270	108	74.3 - 123	
Trichloroethene	1	0.025	0.0258	103	77.7 - 118	
Vinyl chloride	1	0.025	0.0297	119	65.9 - 128	
Xylenes, Total	1	0.075	0.0800	107	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0279	112	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0306	122	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0274	110	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0248	99.2	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0281	113	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0286	114	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0284	114	75 - 123	
1,2-Dibromoethane	1	0.025	0.0243	97.1	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0272	109	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0275	110	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0284	113	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1289	103	55 - 149	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1361	109	70.5 - 133	
Acetone	1	0.125	0.1250	100	35.6 - 163	
Benzene	1	0.025	0.0257	103	74.8 - 121	
Bromodichloromethane	1	0.025	0.0289	116	75.1 - 116	
Bromoform	1	0.025	0.0262	105	67.5 - 130	
Bromomethane	1	0.025	0.0300	120	49.9 - 162	
Carbon tetrachloride	1	0.025	0.0298	119	70.2 - 123	
Chlorobenzene	1	0.025	0.0265	106	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0251	100	74 - 121	
Chloroethane	1	0.025	0.0267	107	61.7 - 135	
Chloroform	1	0.025	0.0298	119	76 - 121	
Chloromethane	1	0.025	0.0253	101	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0279	112	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0279	112	78.2 - 120	
Ethylbenzene	1	0.025	0.0265	106	78.8 - 122	
Isopropylbenzene	1	0.025	0.0280	112	78.6 - 132	
m&p-Xylenes	1	0.05	0.0534	107	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0290	116	71.2 - 126	
Methylene Chloride	1	0.025	0.0263	105	70.3 - 120	
Naphthalene	1	0.025	0.0260	104	68.4 - 128	
n-Butylbenzene	1	0.025	0.0297	119	76.2 - 126	
n-Propylbenzene	1	0.025	0.0276	110	78.2 - 122	
o-Xylene	1	0.025	0.0272	109	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0289	115	74 - 131	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
sec-Butylbenzene	1	0.025	0.0285	114	74.4 - 127	
Styrene	1	0.025	0.0280	112	80.4 - 126	
Tetrachloroethene	1	0.025	0.0252	101	72.6 - 126	
Toluene	1	0.025	0.0255	102	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0287	115	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0279	111	74.3 - 123	
Trichloroethene	1	0.025	0.0257	103	77.7 - 118	
Vinyl chloride	1	0.025	0.0285	114	65.9 - 128	
Xylenes, Total	1	0.075	0.0806	108	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		% Rec		Control RPD	
							Limits	Qual	Qual	% RPD	Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0277	111	0.0279	112	74.2 - 124			0.67	20	
1,1,1-Trichloroethane	1	0.025	0.0312	125	0.0306	122	73.2 - 123	J4		1.79	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0260	104	0.0274	110	70.7 - 122			5.18	20	
1,1,2-Trichloroethane	1	0.025	0.0240	96	0.0248	99.2	77.7 - 118			3.2	20	
1,1-Dichloroethane	1	0.025	0.0285	114	0.0281	113	70.7 - 126			1.19	20	
1,1-Dichloroethene	1	0.025	0.0293	117	0.0286	114	67.8 - 129			2.51	20	
1,2,4-Trimethylbenzene	1	0.025	0.0279	112	0.0284	114	75 - 123			1.75	20	
1,2-Dibromoethane	1	0.025	0.0236	94.5	0.0243	97.1	76.6 - 121			2.67	20	
1,2-Dichloroethane	1	0.025	0.0263	105	0.0272	109	68.8 - 124			3.49	20	
1,2-Dichloropropane	1	0.025	0.0272	109	0.0275	110	76.5 - 119			1.18	20	
1,3,5-Trimethylbenzene	1	0.025	0.0280	112	0.0284	113	75.6 - 124			1.34	20	
2-Butanone (MEK)	1	0.125	0.1124	89.9	0.1289	103	55 - 149			13.7	20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1244	99.5	0.1361	109	70.5 - 133			8.96	20	
Acetone	1	0.125	0.1146	91.6	0.1250	100	35.6 - 163			8.71	23.9	
Benzene	1	0.025	0.0256	102	0.0257	103	74.8 - 121			0.53	20	
Bromodichloromethane	1	0.025	0.0291	116	0.0289	116	75.1 - 116			0.76	20	
Bromoform	1	0.025	0.0249	99.4	0.0262	105	67.5 - 130			5.2	20	
Bromomethane	1	0.025	0.0320	128	0.0300	120	49.9 - 162			6.7	20	
Carbon tetrachloride	1	0.025	0.0301	120	0.0298	119	70.2 - 123			0.93	20	
Chlorobenzene	1	0.025	0.0261	104	0.0265	106	78.1 - 119			1.64	20	
Chlorodibromomethane	1	0.025	0.0242	96.6	0.0251	100	74 - 121			3.78	20	
Chloroethane	1	0.025	0.0284	114	0.0267	107	61.7 - 135			6.39	20	
Chloroform	1	0.025	0.0295	118	0.0298	119	76 - 121			0.75	20	
Chloromethane	1	0.025	0.0262	105	0.0253	101	61.5 - 129			3.31	20	
cis-1,2-Dichloroethene	1	0.025	0.0278	111	0.0279	112	76 - 119			0.18	20	
cis-1,3-Dichloropropene	1	0.025	0.0273	109	0.0279	112	78.2 - 120			2.15	20	
Ethylbenzene	1	0.025	0.0263	105	0.0265	106	78.8 - 122			0.76	20	
Isopropylbenzene	1	0.025	0.0279	112	0.0280	112	78.6 - 132			0.29	20	
m&p-Xylenes	1	0.05	0.0534	107	0.0534	107	78.8 - 121			0.11	20	
Methyl tert-butyl ether	1	0.025	0.0282	113	0.0290	116	71.2 - 126			2.8	20	
Methylene Chloride	1	0.025	0.0261	104	0.0263	105	70.3 - 120			0.82	20	
Naphthalene	1	0.025	0.0248	99.3	0.0260	104	68.4 - 128			4.41	20	
n-Butylbenzene	1	0.025	0.0294	118	0.0297	119	76.2 - 126			1.12	20	
n-Propylbenzene	1	0.025	0.0271	108	0.0276	110	78.2 - 122			1.79	20	
o-Xylene	1	0.025	0.0266	106	0.0272	109	77.6 - 122			2.21	20	
p-Isopropyltoluene	1	0.025	0.0286	114	0.0289	115	74 - 131			1.02	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
sec-Butylbenzene	1	0.025	0.0280	112	0.0285	114	74.4 - 127		1.79	20
Styrene	1	0.025	0.0275	110	0.0280	112	80.4 - 126		2.11	20
Tetrachloroethene	1	0.025	0.0252	101	0.0252	101	72.6 - 126		0.14	20
Toluene	1	0.025	0.0257	103	0.0255	102	79.7 - 116		0.88	20
trans-1,2-Dichloroethene	1	0.025	0.0286	115	0.0287	115	72.6 - 121		0.35	20
trans-1,3-Dichloropropene	1	0.025	0.0270	108	0.0279	111	74.3 - 123		3.13	20
Trichloroethene	1	0.025	0.0258	103	0.0257	103	77.7 - 118		0.3	20
Vinyl chloride	1	0.025	0.0297	119	0.0285	114	65.9 - 128		4.13	20
Xylenes, Total	1	0.075	0.0800	107	0.0806	108	78.7 - 121		0.81	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0262	105	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0253	101	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0301	120	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0258	103	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0255	102	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0268	107	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0256	102	75 - 123	
1,2-Dibromoethane	1	0.025	0.0255	102	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0262	105	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0259	103	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0253	101	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1409	113	55 - 149	
2-Hexanone	1	0.125	0.1573	126	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1581	126	70.5 - 133	
Acetone	1	0.125	0.1140	91.2	35.6 - 163	
Benzene	1	0.025	0.0240	96	74.8 - 121	
Bromodichloromethane	1	0.025	0.0283	113	75.1 - 116	
Bromoform	1	0.025	0.0276	110	67.5 - 130	
Bromomethane	1	0.025	0.0233	93.2	49.9 - 162	
Carbon disulfide	1	0.025	0.0246	98.3	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0250	100	70.2 - 123	
Chlorobenzene	1	0.025	0.0250	99.8	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0251	101	74 - 121	
Chloroethane	1	0.025	0.0219	87.7	61.7 - 135	
Chloroform	1	0.025	0.0269	108	76 - 121	
Chloromethane	1	0.025	0.0212	84.7	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0249	99.8	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0271	108	78.2 - 120	
Ethylbenzene	1	0.025	0.0242	96.9	78.8 - 122	
Isopropylbenzene	1	0.025	0.0249	99.7	78.6 - 132	
m&p-Xylenes	1	0.05	0.0481	96.2	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0278	111	71.2 - 126	
Methylene Chloride	1	0.025	0.0227	90.7	70.3 - 120	
Naphthalene	1	0.025	0.0317	127	68.4 - 128	
n-Butylbenzene	1	0.025	0.0269	108	76.2 - 126	
n-Propylbenzene	1	0.025	0.0246	98.5	78.2 - 122	



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0243	97.1	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0257	103	74 - 131	
sec-Butylbenzene	1	0.025	0.0250	99.9	74.4 - 127	
Styrene	1	0.025	0.0259	104	80.4 - 126	
Tetrachloroethene	1	0.025	0.0240	95.9	72.6 - 126	
Toluene	1	0.025	0.0237	94.9	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0251	101	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0275	110	74.3 - 123	
Trichloroethene	1	0.025	0.0251	100	77.7 - 118	
Vinyl chloride	1	0.025	0.0253	101	65.9 - 128	
Xylenes, Total	1	0.075	0.0724	96.5	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0253	101	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0249	99.8	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0263	105	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0250	100	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0249	99.5	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0256	102	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0245	98.1	75 - 123	
1,2-Dibromoethane	1	0.025	0.0248	99.2	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0261	104	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0258	103	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0244	97.7	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1359	109	55 - 149	
2-Hexanone	1	0.125	0.1368	109	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1428	114	70.5 - 133	
Acetone	1	0.125	0.1094	87.5	35.6 - 163	
Benzene	1	0.025	0.0236	94.2	74.8 - 121	
Bromodichloromethane	1	0.025	0.0275	110	75.1 - 116	
Bromoform	1	0.025	0.0250	100	67.5 - 130	
Bromomethane	1	0.025	0.0229	91.5	49.9 - 162	
Carbon disulfide	1	0.025	0.0236	94.3	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0248	99	70.2 - 123	
Chlorobenzene	1	0.025	0.0244	97.7	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0239	95.6	74 - 121	
Chloroethane	1	0.025	0.0218	87.3	61.7 - 135	
Chloroform	1	0.025	0.0262	105	76 - 121	
Chloromethane	1	0.025	0.0200	80	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0245	98	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0270	108	78.2 - 120	
Ethylbenzene	1	0.025	0.0238	95.4	78.8 - 122	
Isopropylbenzene	1	0.025	0.0241	96.2	78.6 - 132	
m&p-Xylenes	1	0.05	0.0474	94.8	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0272	109	71.2 - 126	
Methylene Chloride	1	0.025	0.0220	88.1	70.3 - 120	
Naphthalene	1	0.025	0.0280	112	68.4 - 128	
n-Butylbenzene	1	0.025	0.0271	108	76.2 - 126	
n-Propylbenzene	1	0.025	0.0238	95.2	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG754787
Collection Date:	11/11/2014	Analyst:	644
Analysis Date:	11/19/2014 12:35:00 AM		
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0235	94	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0249	99.5	74 - 131	
sec-Butylbenzene	1	0.025	0.0243	97.1	74.4 - 127	
Styrene	1	0.025	0.0252	101	80.4 - 126	
Tetrachloroethene	1	0.025	0.0233	93	72.6 - 126	
Toluene	1	0.025	0.0233	93.2	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0242	96.8	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0277	111	74.3 - 123	
Trichloroethene	1	0.025	0.0237	94.6	77.7 - 118	
Vinyl chloride	1	0.025	0.0242	96.6	65.9 - 128	
Xylenes, Total	1	0.075	0.0709	94.5	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		% Rec		Control RPD	
							Limits	Qual	% RPD	Qual	Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0262	105	0.0253	101	74.2 - 124		3.4		20	
1,1,1-Trichloroethane	1	0.025	0.0253	101	0.0249	99.8	73.2 - 123		1.54		20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0301	120	0.0263	105	70.7 - 122		13.6		20	
1,1,2-Trichloroethane	1	0.025	0.0258	103	0.0250	100	77.7 - 118		3.01		20	
1,1-Dichloroethane	1	0.025	0.0255	102	0.0249	99.5	70.7 - 126		2.35		20	
1,1-Dichloroethene	1	0.025	0.0268	107	0.0256	102	67.8 - 129		4.94		20	
1,2,4-Trimethylbenzene	1	0.025	0.0256	102	0.0245	98.1	75 - 123		4.16		20	
1,2-Dibromoethane	1	0.025	0.0255	102	0.0248	99.2	76.6 - 121		2.83		20	
1,2-Dichloroethane	1	0.025	0.0262	105	0.0261	104	68.8 - 124		0.4		20	
1,2-Dichloropropane	1	0.025	0.0259	103	0.0258	103	76.5 - 119		0.39		20	
1,3,5-Trimethylbenzene	1	0.025	0.0253	101	0.0244	97.7	75.6 - 124		3.33		20	
2-Butanone (MEK)	1	0.125	0.1409	113	0.1359	109	55 - 149		3.62		20	
2-Hexanone	1	0.125	0.1573	126	0.1368	109	65.6 - 144		13.9		20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1581	126	0.1428	114	70.5 - 133		10.2		20	
Acetone	1	0.125	0.1140	91.2	0.1094	87.5	35.6 - 163		4.14		23.9	
Benzene	1	0.025	0.0240	96	0.0236	94.2	74.8 - 121		1.93		20	
Bromodichloromethane	1	0.025	0.0283	113	0.0275	110	75.1 - 116		2.82		20	
Bromoform	1	0.025	0.0276	110	0.0250	100	67.5 - 130		9.79		20	
Bromomethane	1	0.025	0.0233	93.2	0.0229	91.5	49.9 - 162		1.82		20	
Carbon disulfide	1	0.025	0.0246	98.3	0.0236	94.3	64.6 - 140		4.11		20	
Carbon tetrachloride	1	0.025	0.0250	100	0.0248	99	70.2 - 123		1.15		20	
Chlorobenzene	1	0.025	0.0250	99.8	0.0244	97.7	78.1 - 119		2.13		20	
Chlorodibromomethane	1	0.025	0.0251	101	0.0239	95.6	74 - 121		4.96		20	
Chloroethane	1	0.025	0.0219	87.7	0.0218	87.3	61.7 - 135		0.39		20	
Chloroform	1	0.025	0.0269	108	0.0262	105	76 - 121		2.77		20	
Chloromethane	1	0.025	0.0212	84.7	0.0200	80	61.5 - 129		5.69		20	
cis-1,2-Dichloroethene	1	0.025	0.0249	99.8	0.0245	98	76 - 119		1.82		20	
cis-1,3-Dichloropropene	1	0.025	0.0271	108	0.0270	108	78.2 - 120		0.53		20	
Ethylbenzene	1	0.025	0.0242	96.9	0.0238	95.4	78.8 - 122		1.57		20	
Isopropylbenzene	1	0.025	0.0249	99.7	0.0241	96.2	78.6 - 132		3.52		20	
m&p-Xylenes	1	0.05	0.0481	96.2	0.0474	94.8	78.8 - 121		1.46		20	
Methyl tert-butyl ether	1	0.025	0.0278	111	0.0272	109	71.2 - 126		2.05		20	
Methylene Chloride	1	0.025	0.0227	90.7	0.0220	88.1	70.3 - 120		2.92		20	
Naphthalene	1	0.025	0.0317	127	0.0280	112	68.4 - 128		12.4		20	
n-Butylbenzene	1	0.025	0.0269	108	0.0271	108	76.2 - 126		0.7		20	
n-Propylbenzene	1	0.025	0.0246	98.5	0.0238	95.2	78.2 - 122		3.39		20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
o-Xylene	1	0.025	0.0243	97.1	0.0235	94	77.6 - 122		3.23	20
p-Isopropyltoluene	1	0.025	0.0257	103	0.0249	99.5	74 - 131		3.24	20
sec-Butylbenzene	1	0.025	0.0250	99.9	0.0243	97.1	74.4 - 127		2.81	20
Styrene	1	0.025	0.0259	104	0.0252	101	80.4 - 126		2.6	20
Tetrachloroethene	1	0.025	0.0240	95.9	0.0233	93	72.6 - 126		3.11	20
Toluene	1	0.025	0.0237	94.9	0.0233	93.2	79.7 - 116		1.85	20
trans-1,2-Dichloroethene	1	0.025	0.0251	101	0.0242	96.8	72.6 - 121		3.72	20
trans-1,3-Dichloropropene	1	0.025	0.0275	110	0.0277	111	74.3 - 123		0.63	20
Trichloroethene	1	0.025	0.0251	100	0.0237	94.6	77.7 - 118		5.93	20
Vinyl chloride	1	0.025	0.0253	101	0.0242	96.6	65.9 - 128		4.71	20
Xylenes, Total	1	0.075	0.0724	96.5	0.0709	94.5	78.7 - 121		2.05	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754909**
 Analysis Date: 11/21/2014 11:52:00 AM Analyst: 644
 Instrument ID: VOCMS20
 Sample Numbers: L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0282	113	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0245	97.9	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0302	121	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0274	110	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0261	104	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0228	91.1	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0280	112	75 - 123	
1,2-Dibromoethane	1	0.025	0.0281	113	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0226	90.3	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0281	113	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0281	112	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1385	111	55 - 149	
2-Hexanone	1	0.125	0.1609	129	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1532	123	70.5 - 133	
Acetone	1	0.125	0.1106	88.5	35.6 - 163	
Benzene	1	0.025	0.0252	101	74.8 - 121	
Bromodichloromethane	1	0.025	0.0248	99.1	75.1 - 116	
Bromoform	1	0.025	0.0310	124	67.5 - 130	
Bromomethane	1	0.025	0.0403	161	49.9 - 162	
Carbon disulfide	1	0.025	0.0242	96.6	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0248	99.1	70.2 - 123	
Chlorobenzene	1	0.025	0.0282	113	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0272	109	74 - 121	
Chloroethane	1	0.025	0.0223	89.1	61.7 - 135	
Chloroform	1	0.025	0.0243	97.1	76 - 121	
Chloromethane	1	0.025	0.0264	106	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0260	104	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0284	114	78.2 - 120	
Ethylbenzene	1	0.025	0.0284	113	78.8 - 122	
Isopropylbenzene	1	0.025	0.0288	115	78.6 - 132	
m&p-Xylenes	1	0.05	0.0577	115	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0256	102	71.2 - 126	
Methylene Chloride	1	0.025	0.0231	92.5	70.3 - 120	
Naphthalene	1	0.025	0.0289	116	68.4 - 128	
n-Butylbenzene	1	0.025	0.0274	109	76.2 - 126	
n-Propylbenzene	1	0.025	0.0279	112	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754909
Analysis Date:	11/21/2014 11:52:00 AM	Analyst:	644
Instrument ID:	VOCMS20		
Sample Numbers:	L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0286	114	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0310	124	74 - 131	
sec-Butylbenzene	1	0.025	0.0295	118	74.4 - 127	
Styrene	1	0.025	0.0281	112	80.4 - 126	
Tetrachloroethene	1	0.025	0.0300	120	72.6 - 126	
Toluene	1	0.025	0.0263	105	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0262	105	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0285	114	74.3 - 123	
Trichloroethene	1	0.025	0.0247	98.7	77.7 - 118	
Vinyl chloride	1	0.025	0.0237	94.8	65.9 - 128	
Xylenes, Total	1	0.075	0.0863	115	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754909**
 Analysis Date: 11/21/2014 11:52:00 AM Analyst: 644
 Instrument ID: VOCMS20
 Sample Numbers: L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0262	105	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0235	93.9	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0277	111	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0259	103	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0250	100	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0225	90.1	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0265	106	75 - 123	
1,2-Dibromoethane	1	0.025	0.0262	105	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0216	86.2	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0273	109	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0264	106	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1350	108	55 - 149	
2-Hexanone	1	0.125	0.1473	118	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1501	120	70.5 - 133	
Acetone	1	0.125	0.1036	82.9	35.6 - 163	
Benzene	1	0.025	0.0249	99.7	74.8 - 121	
Bromodichloromethane	1	0.025	0.0246	98.3	75.1 - 116	
Bromoform	1	0.025	0.0294	118	67.5 - 130	
Bromomethane	1	0.025	0.0408	163	49.9 - 162	J4
Carbon disulfide	1	0.025	0.0238	95.2	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0261	104	70.2 - 123	
Chlorobenzene	1	0.025	0.0260	104	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0259	103	74 - 121	
Chloroethane	1	0.025	0.0238	95.1	61.7 - 135	
Chloroform	1	0.025	0.0239	95.6	76 - 121	
Chloromethane	1	0.025	0.0251	100	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0257	103	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0283	113	78.2 - 120	
Ethylbenzene	1	0.025	0.0261	105	78.8 - 122	
Isopropylbenzene	1	0.025	0.0269	108	78.6 - 132	
m&p-Xylenes	1	0.05	0.0540	108	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0248	99	71.2 - 126	
Methylene Chloride	1	0.025	0.0231	92.4	70.3 - 120	
Naphthalene	1	0.025	0.0280	112	68.4 - 128	
n-Butylbenzene	1	0.025	0.0269	108	76.2 - 126	
n-Propylbenzene	1	0.025	0.0258	103	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754909
Analysis Date:	11/21/2014 11:52:00 AM	Analyst:	644
Instrument ID:	VOCMS20		
Sample Numbers:	L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0266	106	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0292	117	74 - 131	
sec-Butylbenzene	1	0.025	0.0279	112	74.4 - 127	
Styrene	1	0.025	0.0260	104	80.4 - 126	
Tetrachloroethene	1	0.025	0.0280	112	72.6 - 126	
Toluene	1	0.025	0.0259	104	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0262	105	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0278	111	74.3 - 123	
Trichloroethene	1	0.025	0.0251	101	77.7 - 118	
Vinyl chloride	1	0.025	0.0237	94.7	65.9 - 128	
Xylenes, Total	1	0.075	0.0806	107	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754909
Analysis Date:	11/21/2014 11:52:00 AM	Analyst:	644
Instrument ID:	VOCMS20		
Sample Numbers:	L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec	Qual	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0282	113	0.0262	105	74.2 - 124		7.52	20
1,1,1-Trichloroethane	1	0.025	0.0245	97.9	0.0235	93.9	73.2 - 123		4.15	20
1,1,2,2-Tetrachloroethane	1	0.025	0.0302	121	0.0277	111	70.7 - 122		8.66	20
1,1,2-Trichloroethane	1	0.025	0.0274	110	0.0259	103	77.7 - 118		5.85	20
1,1-Dichloroethane	1	0.025	0.0261	104	0.0250	100	70.7 - 126		4.05	20
1,1-Dichloroethene	1	0.025	0.0228	91.1	0.0225	90.1	67.8 - 129		1.09	20
1,2,4-Trimethylbenzene	1	0.025	0.0280	112	0.0265	106	75 - 123		5.72	20
1,2-Dibromoethane	1	0.025	0.0281	113	0.0262	105	76.6 - 121		6.96	20
1,2-Dichloroethane	1	0.025	0.0226	90.3	0.0216	86.2	68.8 - 124		4.67	20
1,2-Dichloropropane	1	0.025	0.0281	113	0.0273	109	76.5 - 119		3	20
1,3,5-Trimethylbenzene	1	0.025	0.0281	112	0.0264	106	75.6 - 124		6.15	20
2-Butanone (MEK)	1	0.125	0.1385	111	0.1350	108	55 - 149		2.51	20
2-Hexanone	1	0.125	0.1609	129	0.1473	118	65.6 - 144		8.81	20
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1532	123	0.1501	120	70.5 - 133		2.05	20
Acetone	1	0.125	0.1106	88.5	0.1036	82.9	35.6 - 163		6.53	23.9
Benzene	1	0.025	0.0252	101	0.0249	99.7	74.8 - 121		1.24	20
Bromodichloromethane	1	0.025	0.0248	99.1	0.0246	98.3	75.1 - 116		0.8	20
Bromoform	1	0.025	0.0310	124	0.0294	118	67.5 - 130		5.32	20
Bromomethane	1	0.025	0.0403	161	0.0408	163	49.9 - 162	J4	1.35	20
Carbon disulfide	1	0.025	0.0242	96.6	0.0238	95.2	64.6 - 140		1.48	20
Carbon tetrachloride	1	0.025	0.0248	99.1	0.0261	104	70.2 - 123		5.07	20
Chlorobenzene	1	0.025	0.0282	113	0.0260	104	78.1 - 119		7.91	20
Chlorodibromomethane	1	0.025	0.0272	109	0.0259	103	74 - 121		5.21	20
Chloroethane	1	0.025	0.0223	89.1	0.0238	95.1	61.7 - 135		6.46	20
Chloroform	1	0.025	0.0243	97.1	0.0239	95.6	76 - 121		1.54	20
Chloromethane	1	0.025	0.0264	106	0.0251	100	61.5 - 129		5.07	20
cis-1,2-Dichloroethene	1	0.025	0.0260	104	0.0257	103	76 - 119		1.14	20
cis-1,3-Dichloropropene	1	0.025	0.0284	114	0.0283	113	78.2 - 120		0.31	20
Ethylbenzene	1	0.025	0.0284	113	0.0261	105	78.8 - 122		8.19	20
Isopropylbenzene	1	0.025	0.0288	115	0.0269	108	78.6 - 132		6.78	20
m&p-Xylenes	1	0.05	0.0577	115	0.0540	108	78.8 - 121		6.67	20
Methyl tert-butyl ether	1	0.025	0.0256	102	0.0248	99	71.2 - 126		3.29	20
Methylene Chloride	1	0.025	0.0231	92.5	0.0231	92.4	70.3 - 120		0.04	20
Naphthalene	1	0.025	0.0289	116	0.0280	112	68.4 - 128		3.25	20
n-Butylbenzene	1	0.025	0.0274	109	0.0269	108	76.2 - 126		1.53	20
n-Propylbenzene	1	0.025	0.0279	112	0.0258	103	78.2 - 122		7.77	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754909
Analysis Date:	11/21/2014 11:52:00 AM	Analyst:	644
Instrument ID:	VOCMS20		
Sample Numbers:	L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	Limits	Qual
o-Xylene	1	0.025	0.0286	114	0.0266	106	77.6 - 122		7.28	20
p-Isopropyltoluene	1	0.025	0.0310	124	0.0292	117	74 - 131		5.81	20
sec-Butylbenzene	1	0.025	0.0295	118	0.0279	112	74.4 - 127		5.44	20
Styrene	1	0.025	0.0281	112	0.0260	104	80.4 - 126		7.67	20
Tetrachloroethene	1	0.025	0.0300	120	0.0280	112	72.6 - 126		6.62	20
Toluene	1	0.025	0.0263	105	0.0259	104	79.7 - 116		1.26	20
trans-1,2-Dichloroethene	1	0.025	0.0262	105	0.0262	105	72.6 - 121		0.03	20
trans-1,3-Dichloropropene	1	0.025	0.0285	114	0.0278	111	74.3 - 123		2.66	20
Trichloroethene	1	0.025	0.0247	98.7	0.0251	101	77.7 - 118		1.77	20
Vinyl chloride	1	0.025	0.0237	94.8	0.0237	94.7	65.9 - 128		0.16	20
Xylenes, Total	1	0.075	0.0863	115	0.0806	107	78.7 - 121		6.88	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754914
Analysis Date:	11/17/2014 2:20:00 AM	Analyst:	644
Instrument ID:	VOCMS14		
Sample Numbers:	L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0230	92.1	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0270	108	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0244	97.5	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0245	98	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0249	99.5	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0237	94.9	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0261	104	75 - 123	
1,2-Dibromoethane	1	0.025	0.0244	97.8	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0224	89.4	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0256	102	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0263	105	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1288	103	55 - 149	
2-Hexanone	1	0.125	0.1222	97.8	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1279	102	70.5 - 133	
Acetone	1	0.125	0.1147	91.7	35.6 - 163	
Benzene	1	0.025	0.0267	107	74.8 - 121	
Bromodichloromethane	1	0.025	0.0218	87	75.1 - 116	
Bromoform	1	0.025	0.0217	86.9	67.5 - 130	
Bromomethane	1	0.025	0.0270	108	49.9 - 162	
Carbon disulfide	1	0.025	0.0184	73.4	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0269	108	70.2 - 123	
Chlorobenzene	1	0.025	0.0261	104	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0214	85.7	74 - 121	
Chloroethane	1	0.025	0.0254	101	61.7 - 135	
Chloroform	1	0.025	0.0265	106	76 - 121	
Chloromethane	1	0.025	0.0253	101	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0265	106	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0229	91.4	78.2 - 120	
Ethylbenzene	1	0.025	0.0262	105	78.8 - 122	
Isopropylbenzene	1	0.025	0.0267	107	78.6 - 132	
m&p-Xylenes	1	0.05	0.0521	104	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0248	99.3	71.2 - 126	
Methylene Chloride	1	0.025	0.0249	99.6	70.3 - 120	
Naphthalene	1	0.025	0.0242	96.9	68.4 - 128	
n-Butylbenzene	1	0.025	0.0284	113	76.2 - 126	
n-Propylbenzene	1	0.025	0.0263	105	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754914
Analysis Date:	11/17/2014 2:20:00 AM	Analyst:	644
Instrument ID:	VOCMS14		
Sample Numbers:	L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0265	106	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0272	109	74 - 131	
sec-Butylbenzene	1	0.025	0.0270	108	74.4 - 127	
Styrene	1	0.025	0.0255	102	80.4 - 126	
Tetrachloroethene	1	0.025	0.0241	96.2	72.6 - 126	
Toluene	1	0.025	0.0258	103	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0257	103	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0214	85.4	74.3 - 123	
Trichloroethene	1	0.025	0.0254	101	77.7 - 118	
Vinyl chloride	1	0.025	0.0257	103	65.9 - 128	
Xylenes, Total	1	0.075	0.0786	105	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754914
Analysis Date:	11/17/2014 2:20:00 AM	Analyst:	644
Instrument ID:	VOCMS14		
Sample Numbers:	L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0244	97.7	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0278	111	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0264	106	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0258	103	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0265	106	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0242	96.7	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0279	112	75 - 123	
1,2-Dibromoethane	1	0.025	0.0258	103	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0220	87.9	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0253	101	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0288	115	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1144	91.5	55 - 149	
2-Hexanone	1	0.125	0.1221	97.7	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1185	94.8	70.5 - 133	
Acetone	1	0.125	0.1050	84	35.6 - 163	
Benzene	1	0.025	0.0274	110	74.8 - 121	
Bromodichloromethane	1	0.025	0.0221	88.3	75.1 - 116	
Bromoform	1	0.025	0.0214	85.6	67.5 - 130	
Bromomethane	1	0.025	0.0299	120	49.9 - 162	
Carbon disulfide	1	0.025	0.0189	75.8	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0273	109	70.2 - 123	
Chlorobenzene	1	0.025	0.0285	114	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0234	93.6	74 - 121	
Chloroethane	1	0.025	0.0282	113	61.7 - 135	
Chloroform	1	0.025	0.0275	110	76 - 121	
Chloromethane	1	0.025	0.0255	102	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0265	106	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0231	92.3	78.2 - 120	
Ethylbenzene	1	0.025	0.0293	117	78.8 - 122	
Isopropylbenzene	1	0.025	0.0287	115	78.6 - 132	
m&p-Xylenes	1	0.05	0.0567	113	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0249	99.8	71.2 - 126	
Methylene Chloride	1	0.025	0.0261	105	70.3 - 120	
Naphthalene	1	0.025	0.0238	95.1	68.4 - 128	
n-Butylbenzene	1	0.025	0.0291	116	76.2 - 126	
n-Propylbenzene	1	0.025	0.0286	115	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754914
Analysis Date:	11/17/2014 2:20:00 AM	Analyst:	644
Instrument ID:	VOCMS14		
Sample Numbers:	L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0286	115	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0300	120	74 - 131	
sec-Butylbenzene	1	0.025	0.0296	118	74.4 - 127	
Styrene	1	0.025	0.0282	113	80.4 - 126	
Tetrachloroethene	1	0.025	0.0261	104	72.6 - 126	
Toluene	1	0.025	0.0258	103	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0265	106	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0196	78.3	74.3 - 123	
Trichloroethene	1	0.025	0.0249	99.7	77.7 - 118	
Vinyl chloride	1	0.025	0.0282	113	65.9 - 128	
Xylenes, Total	1	0.075	0.0854	114	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754914
Analysis Date:	11/17/2014 2:20:00 AM	Analyst:	644
Instrument ID:	VOCMS14		
Sample Numbers:	L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0230	92.1	0.0244	97.7	74.2 - 124	5.93	20	
1,1,1-Trichloroethane	1	0.025	0.0270	108	0.0278	111	73.2 - 123	2.87	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0244	97.5	0.0264	106	70.7 - 122	7.96	20	
1,1,2-Trichloroethane	1	0.025	0.0245	98	0.0258	103	77.7 - 118	4.96	20	
1,1-Dichloroethane	1	0.025	0.0249	99.5	0.0265	106	70.7 - 126	6.41	20	
1,1-Dichloroethene	1	0.025	0.0237	94.9	0.0242	96.7	67.8 - 129	1.84	20	
1,2,4-Trimethylbenzene	1	0.025	0.0261	104	0.0279	112	75 - 123	6.71	20	
1,2-Dibromoethane	1	0.025	0.0244	97.8	0.0258	103	76.6 - 121	5.44	20	
1,2-Dichloroethane	1	0.025	0.0224	89.4	0.0220	87.9	68.8 - 124	1.75	20	
1,2-Dichloropropane	1	0.025	0.0256	102	0.0253	101	76.5 - 119	1.04	20	
1,3,5-Trimethylbenzene	1	0.025	0.0263	105	0.0288	115	75.6 - 124	9.19	20	
2-Butanone (MEK)	1	0.125	0.1288	103	0.1144	91.5	55 - 149	11.8	20	
2-Hexanone	1	0.125	0.1222	97.8	0.1221	97.7	65.6 - 144	0.06	20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1279	102	0.1185	94.8	70.5 - 133	7.69	20	
Acetone	1	0.125	0.1147	91.7	0.1050	84	35.6 - 163	8.82	23.9	
Benzene	1	0.025	0.0267	107	0.0274	110	74.8 - 121	2.69	20	
Bromodichloromethane	1	0.025	0.0218	87	0.0221	88.3	75.1 - 116	1.48	20	
Bromoform	1	0.025	0.0217	86.9	0.0214	85.6	67.5 - 130	1.52	20	
Bromomethane	1	0.025	0.0270	108	0.0299	120	49.9 - 162	10.1	20	
Carbon disulfide	1	0.025	0.0184	73.4	0.0189	75.8	64.6 - 140	3.19	20	
Carbon tetrachloride	1	0.025	0.0269	108	0.0273	109	70.2 - 123	1.2	20	
Chlorobenzene	1	0.025	0.0261	104	0.0285	114	78.1 - 119	8.75	20	
Chlorodibromomethane	1	0.025	0.0214	85.7	0.0234	93.6	74 - 121	8.86	20	
Chloroethane	1	0.025	0.0254	101	0.0282	113	61.7 - 135	10.8	20	
Chloroform	1	0.025	0.0265	106	0.0275	110	76 - 121	3.68	20	
Chloromethane	1	0.025	0.0253	101	0.0255	102	61.5 - 129	0.48	20	
cis-1,2-Dichloroethene	1	0.025	0.0265	106	0.0265	106	76 - 119	0.07	20	
cis-1,3-Dichloropropene	1	0.025	0.0229	91.4	0.0231	92.3	78.2 - 120	1.01	20	
Ethylbenzene	1	0.025	0.0262	105	0.0293	117	78.8 - 122	11.2	20	
Isopropylbenzene	1	0.025	0.0267	107	0.0287	115	78.6 - 132	7.2	20	
m&p-Xylenes	1	0.05	0.0521	104	0.0567	113	78.8 - 121	8.47	20	
Methyl tert-butyl ether	1	0.025	0.0248	99.3	0.0249	99.8	71.2 - 126	0.45	20	
Methylene Chloride	1	0.025	0.0249	99.6	0.0261	105	70.3 - 120	4.8	20	
Naphthalene	1	0.025	0.0242	96.9	0.0238	95.1	68.4 - 128	1.89	20	
n-Butylbenzene	1	0.025	0.0284	113	0.0291	116	76.2 - 126	2.51	20	
n-Propylbenzene	1	0.025	0.0263	105	0.0286	115	78.2 - 122	8.32	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754914
Analysis Date:	11/17/2014 2:20:00 AM	Analyst:	644
Instrument ID:	VOCMS14		
Sample Numbers:	L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	Limits	Qual
o-Xylene	1	0.025	0.0265	106	0.0286	115	77.6 - 122		7.96	20
p-Isopropyltoluene	1	0.025	0.0272	109	0.0300	120	74 - 131		9.98	20
sec-Butylbenzene	1	0.025	0.0270	108	0.0296	118	74.4 - 127		9.2	20
Styrene	1	0.025	0.0255	102	0.0282	113	80.4 - 126		10.1	20
Tetrachloroethene	1	0.025	0.0241	96.2	0.0261	104	72.6 - 126		8.13	20
Toluene	1	0.025	0.0258	103	0.0258	103	79.7 - 116		0.04	20
trans-1,2-Dichloroethene	1	0.025	0.0257	103	0.0265	106	72.6 - 121		2.91	20
trans-1,3-Dichloropropene	1	0.025	0.0214	85.4	0.0196	78.3	74.3 - 123		8.69	20
Trichloroethene	1	0.025	0.0254	101	0.0249	99.7	77.7 - 118		1.75	20
Vinyl chloride	1	0.025	0.0257	103	0.0282	113	65.9 - 128		9.26	20
Xylenes, Total	1	0.075	0.0786	105	0.0854	114	78.7 - 121		8.3	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754915
Analysis Date:	11/19/2014 3:01:00 PM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0270	108	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0250	99.8	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0249	99.7	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0255	102	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0230	92.1	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0233	93.1	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0252	101	75 - 123	
1,2-Dibromoethane	1	0.025	0.0261	104	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0235	94.1	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0228	91.2	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0252	101	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1071	85.7	55 - 149	
2-Hexanone	1	0.125	0.1271	102	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1178	94.2	70.5 - 133	
Acetone	1	0.125	0.1002	80.1	35.6 - 163	
Benzene	1	0.025	0.0229	91.6	74.8 - 121	
Bromodichloromethane	1	0.025	0.0238	95.3	75.1 - 116	
Bromoform	1	0.025	0.0299	120	67.5 - 130	
Bromomethane	1	0.025	0.0315	126	49.9 - 162	
Carbon disulfide	1	0.025	0.0227	90.9	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0255	102	70.2 - 123	
Chlorobenzene	1	0.025	0.0261	104	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0276	111	74 - 121	
Chloroethane	1	0.025	0.0294	118	61.7 - 135	
Chloroform	1	0.025	0.0240	95.8	76 - 121	
Chloromethane	1	0.025	0.0184	73.6	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0239	95.5	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0243	97	78.2 - 120	
Ethylbenzene	1	0.025	0.0257	103	78.8 - 122	
Isopropylbenzene	1	0.025	0.0264	105	78.6 - 132	
m&p-Xylenes	1	0.05	0.0509	102	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0233	93	71.2 - 126	
Methylene Chloride	1	0.025	0.0234	93.7	70.3 - 120	
Naphthalene	1	0.025	0.0230	92.2	68.4 - 128	
n-Butylbenzene	1	0.025	0.0242	96.7	76.2 - 126	
n-Propylbenzene	1	0.025	0.0260	104	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754915
Analysis Date:	11/19/2014 3:01:00 PM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0250	99.8	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0279	111	74 - 131	
sec-Butylbenzene	1	0.025	0.0273	109	74.4 - 127	
Styrene	1	0.025	0.0253	101	80.4 - 126	
Tetrachloroethene	1	0.025	0.0288	115	72.6 - 126	
Toluene	1	0.025	0.0253	101	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0224	89.5	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0257	103	74.3 - 123	
Trichloroethene	1	0.025	0.0257	103	77.7 - 118	
Vinyl chloride	1	0.025	0.0197	78.9	65.9 - 128	
Xylenes, Total	1	0.075	0.0759	101	78.7 - 121	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754915
Analysis Date:	11/19/2014 3:01:00 PM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0271	109	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0258	103	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0241	96.5	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0245	98	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0231	92.4	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0240	95.9	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0249	99.8	75 - 123	
1,2-Dibromoethane	1	0.025	0.0258	103	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0228	91.3	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0226	90.6	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0249	99.8	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1039	83.1	55 - 149	
2-Hexanone	1	0.125	0.1166	93.3	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1113	89	70.5 - 133	
Acetone	1	0.125	0.0977	78.2	35.6 - 163	
Benzene	1	0.025	0.0232	93	74.8 - 121	
Bromodichloromethane	1	0.025	0.0233	93.1	75.1 - 116	
Bromoform	1	0.025	0.0279	112	67.5 - 130	
Bromomethane	1	0.025	0.0314	126	49.9 - 162	
Carbon disulfide	1	0.025	0.0229	91.4	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0265	106	70.2 - 123	
Chlorobenzene	1	0.025	0.0265	106	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0276	110	74 - 121	
Chloroethane	1	0.025	0.0301	120	61.7 - 135	
Chloroform	1	0.025	0.0241	96.3	76 - 121	
Chloromethane	1	0.025	0.0188	75.4	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0238	95.1	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0237	94.6	78.2 - 120	
Ethylbenzene	1	0.025	0.0262	105	78.8 - 122	
Isopropylbenzene	1	0.025	0.0269	108	78.6 - 132	
m&p-Xylenes	1	0.05	0.0509	102	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0226	90.3	71.2 - 126	
Methylene Chloride	1	0.025	0.0236	94.2	70.3 - 120	
Naphthalene	1	0.025	0.0221	88.3	68.4 - 128	
n-Butylbenzene	1	0.025	0.0243	97	76.2 - 126	
n-Propylbenzene	1	0.025	0.0264	106	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754915
Analysis Date:	11/19/2014 3:01:00 PM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0248	99.3	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0280	112	74 - 131	
sec-Butylbenzene	1	0.025	0.0280	112	74.4 - 127	
Styrene	1	0.025	0.0256	102	80.4 - 126	
Tetrachloroethene	1	0.025	0.0289	116	72.6 - 126	
Toluene	1	0.025	0.0258	103	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0235	94	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0248	99.3	74.3 - 123	
Trichloroethene	1	0.025	0.0262	105	77.7 - 118	
Vinyl chloride	1	0.025	0.0198	79.3	65.9 - 128	
Xylenes, Total	1	0.075	0.0758	101	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754915
Analysis Date:	11/19/2014 3:01:00 PM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCS D	% Rec	Control		Control RPD	
							Limits	% Rec Qual	Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0270	108	0.0271	109	74.2 - 124		0.6	20
1,1,1-Trichloroethane	1	0.025	0.0250	99.8	0.0258	103	73.2 - 123		3.52	20
1,1,2,2-Tetrachloroethane	1	0.025	0.0249	99.7	0.0241	96.5	70.7 - 122		3.2	20
1,1,2-Trichloroethane	1	0.025	0.0255	102	0.0245	98	77.7 - 118		3.99	20
1,1-Dichloroethane	1	0.025	0.0230	92.1	0.0231	92.4	70.7 - 126		0.37	20
1,1-Dichloroethene	1	0.025	0.0233	93.1	0.0240	95.9	67.8 - 129		2.94	20
1,2,4-Trimethylbenzene	1	0.025	0.0252	101	0.0249	99.8	75 - 123		1.05	20
1,2-Dibromoethane	1	0.025	0.0261	104	0.0258	103	76.6 - 121		1.32	20
1,2-Dichloroethane	1	0.025	0.0235	94.1	0.0228	91.3	68.8 - 124		3	20
1,2-Dichloropropane	1	0.025	0.0228	91.2	0.0226	90.6	76.5 - 119		0.7	20
1,3,5-Trimethylbenzene	1	0.025	0.0252	101	0.0249	99.8	75.6 - 124		0.92	20
2-Butanone (MEK)	1	0.125	0.1071	85.7	0.1039	83.1	55 - 149		3.01	20
2-Hexanone	1	0.125	0.1271	102	0.1166	93.3	65.6 - 144		8.66	20
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1178	94.2	0.1113	89	70.5 - 133		5.68	20
Acetone	1	0.125	0.1002	80.1	0.0977	78.2	35.6 - 163		2.46	23.9
Benzene	1	0.025	0.0229	91.6	0.0232	93	74.8 - 121		1.47	20
Bromodichloromethane	1	0.025	0.0238	95.3	0.0233	93.1	75.1 - 116		2.34	20
Bromoform	1	0.025	0.0299	120	0.0279	112	67.5 - 130		6.86	20
Bromomethane	1	0.025	0.0315	126	0.0314	126	49.9 - 162		0.43	20
Carbon disulfide	1	0.025	0.0227	90.9	0.0229	91.4	64.6 - 140		0.63	20
Carbon tetrachloride	1	0.025	0.0255	102	0.0265	106	70.2 - 123		3.63	20
Chlorobenzene	1	0.025	0.0261	104	0.0265	106	78.1 - 119		1.28	20
Chlorodibromomethane	1	0.025	0.0276	111	0.0276	110	74 - 121		0.14	20
Chloroethane	1	0.025	0.0294	118	0.0301	120	61.7 - 135		2.1	20
Chloroform	1	0.025	0.0240	95.8	0.0241	96.3	76 - 121		0.48	20
Chloromethane	1	0.025	0.0184	73.6	0.0188	75.4	61.5 - 129		2.34	20
cis-1,2-Dichloroethene	1	0.025	0.0239	95.5	0.0238	95.1	76 - 119		0.46	20
cis-1,3-Dichloropropene	1	0.025	0.0243	97	0.0237	94.6	78.2 - 120		2.47	20
Ethylbenzene	1	0.025	0.0257	103	0.0262	105	78.8 - 122		1.59	20
Isopropylbenzene	1	0.025	0.0264	105	0.0269	108	78.6 - 132		2.12	20
m&p-Xylenes	1	0.05	0.0509	102	0.0509	102	78.8 - 121		0.06	20
Methyl tert-butyl ether	1	0.025	0.0233	93	0.0226	90.3	71.2 - 126		2.92	20
Methylene Chloride	1	0.025	0.0234	93.7	0.0236	94.2	70.3 - 120		0.6	20
Naphthalene	1	0.025	0.0230	92.2	0.0221	88.3	68.4 - 128		4.25	20
n-Butylbenzene	1	0.025	0.0242	96.7	0.0243	97	76.2 - 126		0.36	20
n-Propylbenzene	1	0.025	0.0260	104	0.0264	106	78.2 - 122		1.49	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754915
Analysis Date:	11/19/2014 3:01:00 PM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	Limits	Qual
o-Xylene	1	0.025	0.0250	99.8	0.0248	99.3	77.6 - 122		0.51	20
p-Isopropyltoluene	1	0.025	0.0279	111	0.0280	112	74 - 131		0.42	20
sec-Butylbenzene	1	0.025	0.0273	109	0.0280	112	74.4 - 127		2.35	20
Styrene	1	0.025	0.0253	101	0.0256	102	80.4 - 126		0.93	20
Tetrachloroethene	1	0.025	0.0288	115	0.0289	116	72.6 - 126		0.45	20
Toluene	1	0.025	0.0253	101	0.0258	103	79.7 - 116		1.9	20
trans-1,2-Dichloroethene	1	0.025	0.0224	89.5	0.0235	94	72.6 - 121		4.94	20
trans-1,3-Dichloropropene	1	0.025	0.0257	103	0.0248	99.3	74.3 - 123		3.57	20
Trichloroethene	1	0.025	0.0257	103	0.0262	105	77.7 - 118		1.84	20
Vinyl chloride	1	0.025	0.0197	78.9	0.0198	79.3	65.9 - 128		0.58	20
Xylenes, Total	1	0.075	0.0759	101	0.0758	101	78.7 - 121		0.13	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754916
Analysis Date:	11/22/2014 3:10:00 AM	Analyst:	644
Instrument ID:	VOCMS7		
Sample Numbers:	L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0250	100	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0226	90.3	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0233	93.2	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0243	97.3	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0222	88.8	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0231	92.4	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0234	93.6	75 - 123	
1,2-Dibromoethane	1	0.025	0.0250	99.9	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0214	85.8	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0233	93.2	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0235	93.9	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1101	88.1	55 - 149	
2-Hexanone	1	0.125	0.1154	92.4	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1128	90.3	70.5 - 133	
Acetone	1	0.125	0.1014	81.1	35.6 - 163	
Benzene	1	0.025	0.0219	87.5	74.8 - 121	
Bromodichloromethane	1	0.025	0.0229	91.4	75.1 - 116	
Bromoform	1	0.025	0.0261	104	67.5 - 130	
Bromomethane	1	0.025	0.0262	105	49.9 - 162	
Carbon disulfide	1	0.025	0.0220	88	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0251	100	70.2 - 123	
Chlorobenzene	1	0.025	0.0241	96.4	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0249	99.6	74 - 121	
Chloroethane	1	0.025	0.0225	90.1	61.7 - 135	
Chloroform	1	0.025	0.0219	87.6	76 - 121	
Chloromethane	1	0.025	0.0227	90.8	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0231	92.5	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0233	93.1	78.2 - 120	
Ethylbenzene	1	0.025	0.0236	94.6	78.8 - 122	
Isopropylbenzene	1	0.025	0.0240	96.2	78.6 - 132	
m&p-Xylenes	1	0.05	0.0451	90.2	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0219	87.7	71.2 - 126	
Methylene Chloride	1	0.025	0.0212	84.9	70.3 - 120	
Naphthalene	1	0.025	0.0221	88.4	68.4 - 128	
n-Butylbenzene	1	0.025	0.0225	90.1	76.2 - 126	
n-Propylbenzene	1	0.025	0.0234	93.4	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754916
Analysis Date:	11/22/2014 3:10:00 AM	Analyst:	644
Instrument ID:	VOCMS7		
Sample Numbers:	L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0231	92.2	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0247	99	74 - 131	
sec-Butylbenzene	1	0.025	0.0240	96	74.4 - 127	
Styrene	1	0.025	0.0237	94.7	80.4 - 126	
Tetrachloroethene	1	0.025	0.0266	106	72.6 - 126	
Toluene	1	0.025	0.0220	88	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0236	94.3	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0254	101	74.3 - 123	
Trichloroethene	1	0.025	0.0243	97.1	77.7 - 118	
Vinyl chloride	1	0.025	0.0243	97.2	65.9 - 128	
Xylenes, Total	1	0.075	0.0681	90.8	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754916
Analysis Date:	11/22/2014 3:10:00 AM	Analyst:	644
Instrument ID:	VOCMS7		
Sample Numbers:	L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0249	99.5	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0221	88.2	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0232	92.9	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0244	97.7	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0218	87.3	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0224	89.6	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0231	92.3	75 - 123	
1,2-Dibromoethane	1	0.025	0.0249	99.5	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0213	85.1	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0228	91.3	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0230	92.1	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1071	85.7	55 - 149	
2-Hexanone	1	0.125	0.1158	92.6	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1111	88.9	70.5 - 133	
Acetone	1	0.125	0.0989	79.1	35.6 - 163	
Benzene	1	0.025	0.0213	85.1	74.8 - 121	
Bromodichloromethane	1	0.025	0.0226	90.4	75.1 - 116	
Bromoform	1	0.025	0.0261	104	67.5 - 130	
Bromomethane	1	0.025	0.0262	105	49.9 - 162	
Carbon disulfide	1	0.025	0.0215	85.9	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0221	88.5	70.2 - 123	
Chlorobenzene	1	0.025	0.0240	96.1	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0250	99.9	74 - 121	
Chloroethane	1	0.025	0.0221	88.5	61.7 - 135	
Chloroform	1	0.025	0.0215	85.9	76 - 121	
Chloromethane	1	0.025	0.0216	86.5	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0227	90.9	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0227	90.9	78.2 - 120	
Ethylbenzene	1	0.025	0.0236	94.3	78.8 - 122	
Isopropylbenzene	1	0.025	0.0240	96.1	78.6 - 132	
m&p-Xylenes	1	0.05	0.0448	89.7	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0217	86.7	71.2 - 126	
Methylene Chloride	1	0.025	0.0205	82.1	70.3 - 120	
Naphthalene	1	0.025	0.0221	88.2	68.4 - 128	
n-Butylbenzene	1	0.025	0.0221	88.3	76.2 - 126	
n-Propylbenzene	1	0.025	0.0233	93.2	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754916
Analysis Date:	11/22/2014 3:10:00 AM	Analyst:	644
Instrument ID:	VOCMS7		
Sample Numbers:	L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0228	91.1	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0244	97.6	74 - 131	
sec-Butylbenzene	1	0.025	0.0240	95.9	74.4 - 127	
Styrene	1	0.025	0.0236	94.5	80.4 - 126	
Tetrachloroethene	1	0.025	0.0263	105	72.6 - 126	
Toluene	1	0.025	0.0218	87.1	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0230	91.8	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0250	100	74.3 - 123	
Trichloroethene	1	0.025	0.0242	96.7	77.7 - 118	
Vinyl chloride	1	0.025	0.0234	93.6	65.9 - 128	
Xylenes, Total	1	0.075	0.0676	90.2	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754916
Analysis Date:	11/22/2014 3:10:00 AM	Analyst:	644
Instrument ID:	VOCMS7		
Sample Numbers:	L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		% Rec		Control RPD	
							Limits	Qual	Qual	% RPD	Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0250	100	0.0249	99.5	74.2 - 124			0.66	20	
1,1,1-Trichloroethane	1	0.025	0.0226	90.3	0.0221	88.2	73.2 - 123			2.3	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0233	93.2	0.0232	92.9	70.7 - 122			0.3	20	
1,1,2-Trichloroethane	1	0.025	0.0243	97.3	0.0244	97.7	77.7 - 118			0.4	20	
1,1-Dichloroethane	1	0.025	0.0222	88.8	0.0218	87.3	70.7 - 126			1.66	20	
1,1-Dichloroethene	1	0.025	0.0231	92.4	0.0224	89.6	67.8 - 129			3.09	20	
1,2,4-Trimethylbenzene	1	0.025	0.0234	93.6	0.0231	92.3	75 - 123			1.43	20	
1,2-Dibromoethane	1	0.025	0.0250	99.9	0.0249	99.5	76.6 - 121			0.34	20	
1,2-Dichloroethane	1	0.025	0.0214	85.8	0.0213	85.1	68.8 - 124			0.74	20	
1,2-Dichloropropane	1	0.025	0.0233	93.2	0.0228	91.3	76.5 - 119			1.99	20	
1,3,5-Trimethylbenzene	1	0.025	0.0235	93.9	0.0230	92.1	75.6 - 124			1.85	20	
2-Butanone (MEK)	1	0.125	0.1101	88.1	0.1071	85.7	55 - 149			2.74	20	
2-Hexanone	1	0.125	0.1154	92.4	0.1158	92.6	65.6 - 144			0.29	20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1128	90.3	0.1111	88.9	70.5 - 133			1.56	20	
Acetone	1	0.125	0.1014	81.1	0.0989	79.1	35.6 - 163			2.48	23.9	
Benzene	1	0.025	0.0219	87.5	0.0213	85.1	74.8 - 121			2.81	20	
Bromodichloromethane	1	0.025	0.0229	91.4	0.0226	90.4	75.1 - 116			1.17	20	
Bromoform	1	0.025	0.0261	104	0.0261	104	67.5 - 130			0.17	20	
Bromomethane	1	0.025	0.0262	105	0.0262	105	49.9 - 162			0.26	20	
Carbon disulfide	1	0.025	0.0220	88	0.0215	85.9	64.6 - 140			2.45	20	
Carbon tetrachloride	1	0.025	0.0251	100	0.0221	88.5	70.2 - 123			12.6	20	
Chlorobenzene	1	0.025	0.0241	96.4	0.0240	96.1	78.1 - 119			0.26	20	
Chlorodibromomethane	1	0.025	0.0249	99.6	0.0250	99.9	74 - 121			0.29	20	
Chloroethane	1	0.025	0.0225	90.1	0.0221	88.5	61.7 - 135			1.85	20	
Chloroform	1	0.025	0.0219	87.6	0.0215	85.9	76 - 121			1.91	20	
Chloromethane	1	0.025	0.0227	90.8	0.0216	86.5	61.5 - 129			4.86	20	
cis-1,2-Dichloroethene	1	0.025	0.0231	92.5	0.0227	90.9	76 - 119			1.73	20	
cis-1,3-Dichloropropene	1	0.025	0.0233	93.1	0.0227	90.9	78.2 - 120			2.36	20	
Ethylbenzene	1	0.025	0.0236	94.6	0.0236	94.3	78.8 - 122			0.29	20	
Isopropylbenzene	1	0.025	0.0240	96.2	0.0240	96.1	78.6 - 132			0.14	20	
m&p-Xylenes	1	0.05	0.0451	90.2	0.0448	89.7	78.8 - 121			0.54	20	
Methyl tert-butyl ether	1	0.025	0.0219	87.7	0.0217	86.7	71.2 - 126			1.13	20	
Methylene Chloride	1	0.025	0.0212	84.9	0.0205	82.1	70.3 - 120			3.31	20	
Naphthalene	1	0.025	0.0221	88.4	0.0221	88.2	68.4 - 128			0.18	20	
n-Butylbenzene	1	0.025	0.0225	90.1	0.0221	88.3	76.2 - 126			2.02	20	
n-Propylbenzene	1	0.025	0.0234	93.4	0.0233	93.2	78.2 - 122			0.23	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754916
Analysis Date:	11/22/2014 3:10:00 AM	Analyst:	644
Instrument ID:	VOCMS7		
Sample Numbers:	L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	% RPD	Limits Qual
o-Xylene	1	0.025	0.0231	92.2	0.0228	91.1	77.6 - 122	1.17	20	
p-Isopropyltoluene	1	0.025	0.0247	99	0.0244	97.6	74 - 131	1.39	20	
sec-Butylbenzene	1	0.025	0.0240	96	0.0240	95.9	74.4 - 127	0.12	20	
Styrene	1	0.025	0.0237	94.7	0.0236	94.5	80.4 - 126	0.28	20	
Tetrachloroethene	1	0.025	0.0266	106	0.0263	105	72.6 - 126	0.97	20	
Toluene	1	0.025	0.0220	88	0.0218	87.1	79.7 - 116	1.03	20	
trans-1,2-Dichloroethene	1	0.025	0.0236	94.3	0.0230	91.8	72.6 - 121	2.7	20	
trans-1,3-Dichloropropene	1	0.025	0.0254	101	0.0250	100	74.3 - 123	1.46	20	
Trichloroethene	1	0.025	0.0243	97.1	0.0242	96.7	77.7 - 118	0.43	20	
Vinyl chloride	1	0.025	0.0243	97.2	0.0234	93.6	65.9 - 128	3.84	20	
Xylenes, Total	1	0.075	0.0681	90.8	0.0676	90.2	78.7 - 121	0.75	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754917
Analysis Date:	11/19/2014 3:06:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0253	101	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0238	95.4	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0255	102	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0259	104	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0250	100	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0235	93.8	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0245	98	75 - 123	
1,2-Dibromoethane	1	0.025	0.0262	105	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0212	84.9	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0261	104	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0254	102	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1318	105	55 - 149	
2-Hexanone	1	0.125	0.1604	128	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1395	112	70.5 - 133	
Acetone	1	0.125	0.1153	92.2	35.6 - 163	
Benzene	1	0.025	0.0239	95.8	74.8 - 121	
Bromodichloromethane	1	0.025	0.0242	96.6	75.1 - 116	
Bromoform	1	0.025	0.0255	102	67.5 - 130	
Bromomethane	1	0.025	0.0157	62.8	49.9 - 162	
Carbon disulfide	1	0.025	0.0211	84.2	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0236	94.2	70.2 - 123	
Chlorobenzene	1	0.025	0.0251	100	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0272	109	74 - 121	
Chloroethane	1	0.025	0.0133	53.1	61.7 - 135	J4
Chloroform	1	0.025	0.0245	98.1	76 - 121	
Chloromethane	1	0.025	0.0227	90.9	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0246	98.4	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0261	105	78.2 - 120	
Ethylbenzene	1	0.025	0.0251	100	78.8 - 122	
Isopropylbenzene	1	0.025	0.0266	107	78.6 - 132	
m&p-Xylenes	1	0.05	0.0501	100	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0253	101	71.2 - 126	
Methylene Chloride	1	0.025	0.0237	94.8	70.3 - 120	
Naphthalene	1	0.025	0.0332	133	68.4 - 128	J4
n-Butylbenzene	1	0.025	0.0276	110	76.2 - 126	
n-Propylbenzene	1	0.025	0.0265	106	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754917
Analysis Date:	11/19/2014 3:06:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0275	110	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0247	98.9	74 - 131	
sec-Butylbenzene	1	0.025	0.0259	104	74.4 - 127	
Styrene	1	0.025	0.0266	106	80.4 - 126	
Tetrachloroethene	1	0.025	0.0238	95.3	72.6 - 126	
Toluene	1	0.025	0.0232	92.9	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0249	99.6	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0251	101	74.3 - 123	
Trichloroethene	1	0.025	0.0244	97.8	77.7 - 118	
Vinyl chloride	1	0.025	0.0209	83.6	65.9 - 128	
Xylenes, Total	1	0.075	0.0775	103	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754917
Analysis Date:	11/19/2014 3:06:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0252	101	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0229	91.7	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0261	104	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0271	108	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0246	98.4	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0230	91.9	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0250	100	75 - 123	
1,2-Dibromoethane	1	0.025	0.0263	105	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0202	80.8	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0258	103	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0259	103	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1283	103	55 - 149	
2-Hexanone	1	0.125	0.1577	126	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1390	111	70.5 - 133	
Acetone	1	0.125	0.1105	88.4	35.6 - 163	
Benzene	1	0.025	0.0229	91.5	74.8 - 121	
Bromodichloromethane	1	0.025	0.0236	94.4	75.1 - 116	
Bromoform	1	0.025	0.0251	100	67.5 - 130	
Bromomethane	1	0.025	0.0152	60.8	49.9 - 162	
Carbon disulfide	1	0.025	0.0197	78.8	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0228	91.1	70.2 - 123	
Chlorobenzene	1	0.025	0.0248	99	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0268	107	74 - 121	
Chloroethane	1	0.025	0.0132	52.8	61.7 - 135	J4
Chloroform	1	0.025	0.0233	93.1	76 - 121	
Chloromethane	1	0.025	0.0220	87.9	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0236	94.5	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0255	102	78.2 - 120	
Ethylbenzene	1	0.025	0.0249	99.7	78.8 - 122	
Isopropylbenzene	1	0.025	0.0267	107	78.6 - 132	
m&p-Xylenes	1	0.05	0.0503	101	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0247	98.6	71.2 - 126	
Methylene Chloride	1	0.025	0.0233	93.1	70.3 - 120	
Naphthalene	1	0.025	0.0315	126	68.4 - 128	
n-Butylbenzene	1	0.025	0.0275	110	76.2 - 126	
n-Propylbenzene	1	0.025	0.0266	107	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754917
Analysis Date:	11/19/2014 3:06:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0276	110	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0246	98.5	74 - 131	
sec-Butylbenzene	1	0.025	0.0260	104	74.4 - 127	
Styrene	1	0.025	0.0268	107	80.4 - 126	
Tetrachloroethene	1	0.025	0.0237	94.7	72.6 - 126	
Toluene	1	0.025	0.0225	90.1	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0242	96.9	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0245	98	74.3 - 123	
Trichloroethene	1	0.025	0.0235	94	77.7 - 118	
Vinyl chloride	1	0.025	0.0201	80.3	65.9 - 128	
Xylenes, Total	1	0.075	0.0778	104	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754917
Analysis Date:	11/19/2014 3:06:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		% Rec		Control RPD	
							Limits	Qual	Qual	% RPD	Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0253	101	0.0252	101	74.2 - 124			0.16	20	
1,1,1-Trichloroethane	1	0.025	0.0238	95.4	0.0229	91.7	73.2 - 123			3.9	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0255	102	0.0261	104	70.7 - 122			2.45	20	
1,1,2-Trichloroethane	1	0.025	0.0259	104	0.0271	108	77.7 - 118			4.26	20	
1,1-Dichloroethane	1	0.025	0.0250	100	0.0246	98.4	70.7 - 126			1.65	20	
1,1-Dichloroethene	1	0.025	0.0235	93.8	0.0230	91.9	67.8 - 129			2.07	20	
1,2,4-Trimethylbenzene	1	0.025	0.0245	98	0.0250	100	75 - 123			2.22	20	
1,2-Dibromoethane	1	0.025	0.0262	105	0.0263	105	76.6 - 121			0.25	20	
1,2-Dichloroethane	1	0.025	0.0212	84.9	0.0202	80.8	68.8 - 124			4.93	20	
1,2-Dichloropropane	1	0.025	0.0261	104	0.0258	103	76.5 - 119			1.1	20	
1,3,5-Trimethylbenzene	1	0.025	0.0254	102	0.0259	103	75.6 - 124			1.66	20	
2-Butanone (MEK)	1	0.125	0.1318	105	0.1283	103	55 - 149			2.75	20	
2-Hexanone	1	0.125	0.1604	128	0.1577	126	65.6 - 144			1.67	20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1395	112	0.1390	111	70.5 - 133			0.37	20	
Acetone	1	0.125	0.1153	92.2	0.1105	88.4	35.6 - 163			4.24	23.9	
Benzene	1	0.025	0.0239	95.8	0.0229	91.5	74.8 - 121			4.56	20	
Bromodichloromethane	1	0.025	0.0242	96.6	0.0236	94.4	75.1 - 116			2.34	20	
Bromoform	1	0.025	0.0255	102	0.0251	100	67.5 - 130			1.79	20	
Bromomethane	1	0.025	0.0157	62.8	0.0152	60.8	49.9 - 162			3.17	20	
Carbon disulfide	1	0.025	0.0211	84.2	0.0197	78.8	64.6 - 140			6.73	20	
Carbon tetrachloride	1	0.025	0.0236	94.2	0.0228	91.1	70.2 - 123			3.36	20	
Chlorobenzene	1	0.025	0.0251	100	0.0248	99	78.1 - 119			1.39	20	
Chlorodibromomethane	1	0.025	0.0272	109	0.0268	107	74 - 121			1.47	20	
Chloroethane	1	0.025	0.0133	53.1	0.0132	52.8	61.7 - 135	J4		0.42	20	
Chloroform	1	0.025	0.0245	98.1	0.0233	93.1	76 - 121			5.28	20	
Chloromethane	1	0.025	0.0227	90.9	0.0220	87.9	61.5 - 129			3.37	20	
cis-1,2-Dichloroethene	1	0.025	0.0246	98.4	0.0236	94.5	76 - 119			4.06	20	
cis-1,3-Dichloropropene	1	0.025	0.0261	105	0.0255	102	78.2 - 120			2.46	20	
Ethylbenzene	1	0.025	0.0251	100	0.0249	99.7	78.8 - 122			0.66	20	
Isopropylbenzene	1	0.025	0.0266	107	0.0267	107	78.6 - 132			0.36	20	
m&p-Xylenes	1	0.05	0.0501	100	0.0503	101	78.8 - 121			0.32	20	
Methyl tert-butyl ether	1	0.025	0.0253	101	0.0247	98.6	71.2 - 126			2.45	20	
Methylene Chloride	1	0.025	0.0237	94.8	0.0233	93.1	70.3 - 120			1.78	20	
Naphthalene	1	0.025	0.0332	133	0.0315	126	68.4 - 128	J4		5.16	20	
n-Butylbenzene	1	0.025	0.0276	110	0.0275	110	76.2 - 126			0.46	20	
n-Propylbenzene	1	0.025	0.0265	106	0.0266	107	78.2 - 122			0.61	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754917
Analysis Date:	11/19/2014 3:06:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	Limits	Qual
o-Xylene	1	0.025	0.0275	110	0.0276	110	77.6 - 122		0.48	20
p-Isopropyltoluene	1	0.025	0.0247	98.9	0.0246	98.5	74 - 131		0.49	20
sec-Butylbenzene	1	0.025	0.0259	104	0.0260	104	74.4 - 127		0.15	20
Styrene	1	0.025	0.0266	106	0.0268	107	80.4 - 126		0.7	20
Tetrachloroethene	1	0.025	0.0238	95.3	0.0237	94.7	72.6 - 126		0.69	20
Toluene	1	0.025	0.0232	92.9	0.0225	90.1	79.7 - 116		3.03	20
trans-1,2-Dichloroethene	1	0.025	0.0249	99.6	0.0242	96.9	72.6 - 121		2.78	20
trans-1,3-Dichloropropene	1	0.025	0.0251	101	0.0245	98	74.3 - 123		2.49	20
Trichloroethene	1	0.025	0.0244	97.8	0.0235	94	77.7 - 118		3.91	20
Vinyl chloride	1	0.025	0.0209	83.6	0.0201	80.3	65.9 - 128		4	20
Xylenes, Total	1	0.075	0.0775	103	0.0778	104	78.7 - 121		0.38	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754918
Analysis Date:	11/20/2014 5:53:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0256	102	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0254	102	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0265	106	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0250	100	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0263	105	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0273	109	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0248	99	75 - 123	
1,2-Dibromoethane	1	0.025	0.0251	100	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0277	111	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0265	106	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0245	97.9	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1420	114	55 - 149	
2-Hexanone	1	0.125	0.1370	110	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1430	114	70.5 - 133	
Acetone	1	0.125	0.1195	95.6	35.6 - 163	
Benzene	1	0.025	0.0249	99.7	74.8 - 121	
Bromodichloromethane	1	0.025	0.0286	114	75.1 - 116	
Bromoform	1	0.025	0.0255	102	67.5 - 130	
Bromomethane	1	0.025	0.0265	106	49.9 - 162	
Carbon disulfide	1	0.025	0.0257	103	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0260	104	70.2 - 123	
Chlorobenzene	1	0.025	0.0252	101	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0245	98	74 - 121	
Chloroethane	1	0.025	0.0250	99.8	61.7 - 135	
Chloroform	1	0.025	0.0279	112	76 - 121	
Chloromethane	1	0.025	0.0234	93.7	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0261	104	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0285	114	78.2 - 120	
Ethylbenzene	1	0.025	0.0241	96.6	78.8 - 122	
Isopropylbenzene	1	0.025	0.0247	98.8	78.6 - 132	
m&p-Xylenes	1	0.05	0.0488	97.6	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0294	118	71.2 - 126	
Methylene Chloride	1	0.025	0.0239	95.5	70.3 - 120	
Naphthalene	1	0.025	0.0294	118	68.4 - 128	
n-Butylbenzene	1	0.025	0.0284	113	76.2 - 126	
n-Propylbenzene	1	0.025	0.0242	97	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754918
Analysis Date:	11/20/2014 5:53:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0239	95.4	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0250	100	74 - 131	
sec-Butylbenzene	1	0.025	0.0245	98.1	74.4 - 127	
Styrene	1	0.025	0.0253	101	80.4 - 126	
Tetrachloroethene	1	0.025	0.0245	98.1	72.6 - 126	
Toluene	1	0.025	0.0247	98.9	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0267	107	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0296	119	74.3 - 123	
Trichloroethene	1	0.025	0.0248	99.2	77.7 - 118	
Vinyl chloride	1	0.025	0.0266	106	65.9 - 128	
Xylenes, Total	1	0.075	0.0727	96.9	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754918**
 Analysis Date: 11/20/2014 5:53:00 AM Analyst: 644
 Instrument ID: VOCMS2
 Sample Numbers: L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0258	103	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0266	106	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0259	104	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0247	98.9	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0260	104	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0262	105	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0254	101	75 - 123	
1,2-Dibromoethane	1	0.025	0.0246	98.5	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0267	107	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0257	103	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0252	101	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1209	96.7	55 - 149	
2-Hexanone	1	0.125	0.1225	98	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1278	102	70.5 - 133	
Acetone	1	0.125	0.0929	74.3	35.6 - 163	
Benzene	1	0.025	0.0247	98.9	74.8 - 121	
Bromodichloromethane	1	0.025	0.0279	112	75.1 - 116	
Bromoform	1	0.025	0.0248	99.2	67.5 - 130	
Bromomethane	1	0.025	0.0252	101	49.9 - 162	
Carbon disulfide	1	0.025	0.0263	105	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0262	105	70.2 - 123	
Chlorobenzene	1	0.025	0.0252	101	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0245	98.2	74 - 121	
Chloroethane	1	0.025	0.0234	93.6	61.7 - 135	
Chloroform	1	0.025	0.0272	109	76 - 121	
Chloromethane	1	0.025	0.0226	90.3	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0257	103	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0275	110	78.2 - 120	
Ethylbenzene	1	0.025	0.0246	98.2	78.8 - 122	
Isopropylbenzene	1	0.025	0.0251	101	78.6 - 132	
m&p-Xylenes	1	0.05	0.0488	97.5	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0284	114	71.2 - 126	
Methylene Chloride	1	0.025	0.0238	95.3	70.3 - 120	
Naphthalene	1	0.025	0.0259	103	68.4 - 128	
n-Butylbenzene	1	0.025	0.0280	112	76.2 - 126	
n-Propylbenzene	1	0.025	0.0247	98.6	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754918
Analysis Date:	11/20/2014 5:53:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0242	96.7	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0257	103	74 - 131	
sec-Butylbenzene	1	0.025	0.0251	100	74.4 - 127	
Styrene	1	0.025	0.0254	102	80.4 - 126	
Tetrachloroethene	1	0.025	0.0239	95.8	72.6 - 126	
Toluene	1	0.025	0.0239	95.8	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0259	104	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0279	112	74.3 - 123	
Trichloroethene	1	0.025	0.0250	100	77.7 - 118	
Vinyl chloride	1	0.025	0.0263	105	65.9 - 128	
Xylenes, Total	1	0.075	0.0729	97.2	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754918
Analysis Date:	11/20/2014 5:53:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		% Rec		Control RPD	
							Limits	Qual	Qual	% RPD	Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0256	102	0.0258	103	74.2 - 124			0.91	20	
1,1,1-Trichloroethane	1	0.025	0.0254	102	0.0266	106	73.2 - 123			4.56	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0265	106	0.0259	104	70.7 - 122			2.4	20	
1,1,2-Trichloroethane	1	0.025	0.0250	100	0.0247	98.9	77.7 - 118			1.25	20	
1,1-Dichloroethane	1	0.025	0.0263	105	0.0260	104	70.7 - 126			1.1	20	
1,1-Dichloroethene	1	0.025	0.0273	109	0.0262	105	67.8 - 129			4.1	20	
1,2,4-Trimethylbenzene	1	0.025	0.0248	99	0.0254	101	75 - 123			2.38	20	
1,2-Dibromoethane	1	0.025	0.0251	100	0.0246	98.5	76.6 - 121			1.76	20	
1,2-Dichloroethane	1	0.025	0.0277	111	0.0267	107	68.8 - 124			3.54	20	
1,2-Dichloropropane	1	0.025	0.0265	106	0.0257	103	76.5 - 119			3.2	20	
1,3,5-Trimethylbenzene	1	0.025	0.0245	97.9	0.0252	101	75.6 - 124			2.76	20	
2-Butanone (MEK)	1	0.125	0.1420	114	0.1209	96.7	55 - 149			16	20	
2-Hexanone	1	0.125	0.1370	110	0.1225	98	65.6 - 144			11.2	20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1430	114	0.1278	102	70.5 - 133			11.2	20	
Acetone	1	0.125	0.1195	95.6	0.0929	74.3	35.6 - 163			25.1	23.9	J3
Benzene	1	0.025	0.0249	99.7	0.0247	98.9	74.8 - 121			0.85	20	
Bromodichloromethane	1	0.025	0.0286	114	0.0279	112	75.1 - 116			2.37	20	
Bromoform	1	0.025	0.0255	102	0.0248	99.2	67.5 - 130			3.01	20	
Bromomethane	1	0.025	0.0265	106	0.0252	101	49.9 - 162			5.15	20	
Carbon disulfide	1	0.025	0.0257	103	0.0263	105	64.6 - 140			2.41	20	
Carbon tetrachloride	1	0.025	0.0260	104	0.0262	105	70.2 - 123			0.74	20	
Chlorobenzene	1	0.025	0.0252	101	0.0252	101	78.1 - 119			0.15	20	
Chlorodibromomethane	1	0.025	0.0245	98	0.0245	98.2	74 - 121			0.17	20	
Chloroethane	1	0.025	0.0250	99.8	0.0234	93.6	61.7 - 135			6.44	20	
Chloroform	1	0.025	0.0279	112	0.0272	109	76 - 121			2.34	20	
Chloromethane	1	0.025	0.0234	93.7	0.0226	90.3	61.5 - 129			3.78	20	
cis-1,2-Dichloroethene	1	0.025	0.0261	104	0.0257	103	76 - 119			1.27	20	
cis-1,3-Dichloropropene	1	0.025	0.0285	114	0.0275	110	78.2 - 120			3.79	20	
Ethylbenzene	1	0.025	0.0241	96.6	0.0246	98.2	78.8 - 122			1.69	20	
Isopropylbenzene	1	0.025	0.0247	98.8	0.0251	101	78.6 - 132			1.83	20	
m&p-Xylenes	1	0.05	0.0488	97.6	0.0488	97.5	78.8 - 121			0.1	20	
Methyl tert-butyl ether	1	0.025	0.0294	118	0.0284	114	71.2 - 126			3.45	20	
Methylene Chloride	1	0.025	0.0239	95.5	0.0238	95.3	70.3 - 120			0.19	20	
Naphthalene	1	0.025	0.0294	118	0.0259	103	68.4 - 128			12.9	20	
n-Butylbenzene	1	0.025	0.0284	113	0.0280	112	76.2 - 126			1.38	20	
n-Propylbenzene	1	0.025	0.0242	97	0.0247	98.6	78.2 - 122			1.69	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754918
Analysis Date:	11/20/2014 5:53:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	Limits	Qual
o-Xylene	1	0.025	0.0239	95.4	0.0242	96.7	77.6 - 122		1.26	20
p-Isopropyltoluene	1	0.025	0.0250	100	0.0257	103	74 - 131		2.79	20
sec-Butylbenzene	1	0.025	0.0245	98.1	0.0251	100	74.4 - 127		2.34	20
Styrene	1	0.025	0.0253	101	0.0254	102	80.4 - 126		0.61	20
Tetrachloroethene	1	0.025	0.0245	98.1	0.0239	95.8	72.6 - 126		2.37	20
Toluene	1	0.025	0.0247	98.9	0.0239	95.8	79.7 - 116		3.21	20
trans-1,2-Dichloroethene	1	0.025	0.0267	107	0.0259	104	72.6 - 121		2.84	20
trans-1,3-Dichloropropene	1	0.025	0.0296	119	0.0279	112	74.3 - 123		5.99	20
Trichloroethene	1	0.025	0.0248	99.2	0.0250	100	77.7 - 118		0.87	20
Vinyl chloride	1	0.025	0.0266	106	0.0263	105	65.9 - 128		1.29	20
Xylenes, Total	1	0.075	0.0727	96.9	0.0729	97.2	78.7 - 121		0.35	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754919
Analysis Date:	11/21/2014 10:42:00 PM	Analyst:	644
Instrument ID:	VOCMS13		
Sample Numbers:	L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0271	109	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0263	105	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0272	109	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0271	108	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0264	106	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0263	105	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0264	106	75 - 123	
1,2-Dibromoethane	1	0.025	0.0292	117	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0285	114	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0272	109	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0264	105	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1939	155	55 - 149	J4
2-Hexanone	1	0.125	0.1522	122	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1550	124	70.5 - 133	
Acetone	1	0.125	0.1623	130	35.6 - 163	
Benzene	1	0.025	0.0269	108	74.8 - 121	
Bromodichloromethane	1	0.025	0.0274	110	75.1 - 116	
Bromoform	1	0.025	0.0314	126	67.5 - 130	
Bromomethane	1	0.025	0.0278	111	49.9 - 162	
Carbon disulfide	1	0.025	0.0246	98.2	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0263	105	70.2 - 123	
Chlorobenzene	1	0.025	0.0273	109	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0290	116	74 - 121	
Chloroethane	1	0.025	0.0279	112	61.7 - 135	
Chloroform	1	0.025	0.0266	106	76 - 121	
Chloromethane	1	0.025	0.0250	99.8	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0265	106	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0289	115	78.2 - 120	
Ethylbenzene	1	0.025	0.0263	105	78.8 - 122	
Isopropylbenzene	1	0.025	0.0257	103	78.6 - 132	
m&p-Xylenes	1	0.05	0.0531	106	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0276	110	71.2 - 126	
Methylene Chloride	1	0.025	0.0266	107	70.3 - 120	
Naphthalene	1	0.025	0.0301	120	68.4 - 128	
n-Butylbenzene	1	0.025	0.0257	103	76.2 - 126	
n-Propylbenzene	1	0.025	0.0263	105	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754919
Analysis Date:	11/21/2014 10:42:00 PM	Analyst:	644
Instrument ID:	VOCMS13		
Sample Numbers:	L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0257	103	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0270	108	74 - 131	
sec-Butylbenzene	1	0.025	0.0264	105	74.4 - 127	
Styrene	1	0.025	0.0295	118	80.4 - 126	
Tetrachloroethene	1	0.025	0.0263	105	72.6 - 126	
Toluene	1	0.025	0.0269	108	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0274	110	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0287	115	74.3 - 123	
Trichloroethene	1	0.025	0.0281	112	77.7 - 118	
Vinyl chloride	1	0.025	0.0262	105	65.9 - 128	
Xylenes, Total	1	0.075	0.0788	105	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754919**
 Analysis Date: 11/21/2014 10:42:00 PM Analyst: 644
 Instrument ID: VOCMS13
 Sample Numbers: L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0251	100	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0252	101	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0242	96.7	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0236	94.3	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0248	99.1	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0248	99.2	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0249	99.6	75 - 123	
1,2-Dibromoethane	1	0.025	0.0259	103	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0251	101	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0252	101	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0255	102	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1263	101	55 - 149	
2-Hexanone	1	0.125	0.1269	102	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1301	104	70.5 - 133	
Acetone	1	0.125	0.1311	105	35.6 - 163	
Benzene	1	0.025	0.0252	101	74.8 - 121	
Bromodichloromethane	1	0.025	0.0248	99.2	75.1 - 116	
Bromoform	1	0.025	0.0278	111	67.5 - 130	
Bromomethane	1	0.025	0.0259	104	49.9 - 162	
Carbon disulfide	1	0.025	0.0237	94.7	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0255	102	70.2 - 123	
Chlorobenzene	1	0.025	0.0259	104	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0259	104	74 - 121	
Chloroethane	1	0.025	0.0262	105	61.7 - 135	
Chloroform	1	0.025	0.0245	97.9	76 - 121	
Chloromethane	1	0.025	0.0236	94.3	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0240	96	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0261	105	78.2 - 120	
Ethylbenzene	1	0.025	0.0253	101	78.8 - 122	
Isopropylbenzene	1	0.025	0.0248	99.1	78.6 - 132	
m&p-Xylenes	1	0.05	0.0506	101	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0238	95.2	71.2 - 126	
Methylene Chloride	1	0.025	0.0242	96.9	70.3 - 120	
Naphthalene	1	0.025	0.0266	107	68.4 - 128	
n-Butylbenzene	1	0.025	0.0254	102	76.2 - 126	
n-Propylbenzene	1	0.025	0.0256	102	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754919
Analysis Date:	11/21/2014 10:42:00 PM	Analyst:	644
Instrument ID:	VOCMS13		
Sample Numbers:	L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0244	97.5	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0259	104	74 - 131	
sec-Butylbenzene	1	0.025	0.0255	102	74.4 - 127	
Styrene	1	0.025	0.0272	109	80.4 - 126	
Tetrachloroethene	1	0.025	0.0251	100	72.6 - 126	
Toluene	1	0.025	0.0253	101	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0255	102	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0263	105	74.3 - 123	
Trichloroethene	1	0.025	0.0270	108	77.7 - 118	
Vinyl chloride	1	0.025	0.0246	98.6	65.9 - 128	
Xylenes, Total	1	0.075	0.0750	100	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754919
Analysis Date:	11/21/2014 10:42:00 PM	Analyst:	644
Instrument ID:	VOCMS13		
Sample Numbers:	L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		% Rec		Control RPD	
							Limits	Qual	Qual	% RPD	Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0271	109	0.0251	100	74.2 - 124			7.78	20	
1,1,1-Trichloroethane	1	0.025	0.0263	105	0.0252	101	73.2 - 123			4.48	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0272	109	0.0242	96.7	70.7 - 122			11.9	20	
1,1,2-Trichloroethane	1	0.025	0.0271	108	0.0236	94.3	77.7 - 118			13.8	20	
1,1-Dichloroethane	1	0.025	0.0264	106	0.0248	99.1	70.7 - 126			6.44	20	
1,1-Dichloroethene	1	0.025	0.0263	105	0.0248	99.2	67.8 - 129			5.77	20	
1,2,4-Trimethylbenzene	1	0.025	0.0264	106	0.0249	99.6	75 - 123			5.88	20	
1,2-Dibromoethane	1	0.025	0.0292	117	0.0259	103	76.6 - 121			12.1	20	
1,2-Dichloroethane	1	0.025	0.0285	114	0.0251	101	68.8 - 124			12.7	20	
1,2-Dichloropropane	1	0.025	0.0272	109	0.0252	101	76.5 - 119			7.92	20	
1,3,5-Trimethylbenzene	1	0.025	0.0264	105	0.0255	102	75.6 - 124			3.26	20	
2-Butanone (MEK)	1	0.125	0.1939	155	0.1263	101	55 - 149	J4		42.2	20	J3
2-Hexanone	1	0.125	0.1522	122	0.1269	102	65.6 - 144			18.1	20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1550	124	0.1301	104	70.5 - 133			17.4	20	
Acetone	1	0.125	0.1623	130	0.1311	105	35.6 - 163			21.3	23.9	
Benzene	1	0.025	0.0269	108	0.0252	101	74.8 - 121			6.88	20	
Bromodichloromethane	1	0.025	0.0274	110	0.0248	99.2	75.1 - 116			10.1	20	
Bromoform	1	0.025	0.0314	126	0.0278	111	67.5 - 130			12	20	
Bromomethane	1	0.025	0.0278	111	0.0259	104	49.9 - 162			7	20	
Carbon disulfide	1	0.025	0.0246	98.2	0.0237	94.7	64.6 - 140			3.67	20	
Carbon tetrachloride	1	0.025	0.0263	105	0.0255	102	70.2 - 123			3.08	20	
Chlorobenzene	1	0.025	0.0273	109	0.0259	104	78.1 - 119			5.13	20	
Chlorodibromomethane	1	0.025	0.0290	116	0.0259	104	74 - 121			11.3	20	
Chloroethane	1	0.025	0.0279	112	0.0262	105	61.7 - 135			6.18	20	
Chloroform	1	0.025	0.0266	106	0.0245	97.9	76 - 121			8.18	20	
Chloromethane	1	0.025	0.0250	99.8	0.0236	94.3	61.5 - 129			5.63	20	
cis-1,2-Dichloroethene	1	0.025	0.0265	106	0.0240	96	76 - 119			10	20	
cis-1,3-Dichloropropene	1	0.025	0.0289	115	0.0261	105	78.2 - 120			9.89	20	
Ethylbenzene	1	0.025	0.0263	105	0.0253	101	78.8 - 122			3.9	20	
Isopropylbenzene	1	0.025	0.0257	103	0.0248	99.1	78.6 - 132			3.72	20	
m&p-Xylenes	1	0.05	0.0531	106	0.0506	101	78.8 - 121			4.7	20	
Methyl tert-butyl ether	1	0.025	0.0276	110	0.0238	95.2	71.2 - 126			14.6	20	
Methylene Chloride	1	0.025	0.0266	107	0.0242	96.9	70.3 - 120			9.45	20	
Naphthalene	1	0.025	0.0301	120	0.0266	107	68.4 - 128			12	20	
n-Butylbenzene	1	0.025	0.0257	103	0.0254	102	76.2 - 126			1	20	
n-Propylbenzene	1	0.025	0.0263	105	0.0256	102	78.2 - 122			3.01	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754919
Analysis Date:	11/21/2014 10:42:00 PM	Analyst:	644
Instrument ID:	VOCMS13		
Sample Numbers:	L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
o-Xylene	1	0.025	0.0257	103	0.0244	97.5	77.6 - 122		5.34	20
p-Isopropyltoluene	1	0.025	0.0270	108	0.0259	104	74 - 131		3.92	20
sec-Butylbenzene	1	0.025	0.0264	105	0.0255	102	74.4 - 127		3.5	20
Styrene	1	0.025	0.0295	118	0.0272	109	80.4 - 126		7.96	20
Tetrachloroethene	1	0.025	0.0263	105	0.0251	100	72.6 - 126		4.44	20
Toluene	1	0.025	0.0269	108	0.0253	101	79.7 - 116		6.22	20
trans-1,2-Dichloroethene	1	0.025	0.0274	110	0.0255	102	72.6 - 121		7.03	20
trans-1,3-Dichloropropene	1	0.025	0.0287	115	0.0263	105	74.3 - 123		8.55	20
Trichloroethene	1	0.025	0.0281	112	0.0270	108	77.7 - 118		4.1	20
Vinyl chloride	1	0.025	0.0262	105	0.0246	98.6	65.9 - 128		6.04	20
Xylenes, Total	1	0.075	0.0788	105	0.0750	100	78.7 - 121		4.91	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0269	108	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0235	93.9	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0239	95.7	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0245	97.9	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0221	88.6	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0210	83.9	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0241	96.5	75 - 123	
1,2-Dibromoethane	1	0.025	0.0258	103	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0201	80.3	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0236	94.2	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0248	99.2	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.0932	74.6	55 - 149	
2-Hexanone	1	0.125	0.1173	93.8	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1098	87.8	70.5 - 133	
Acetone	1	0.125	0.0785	62.8	35.6 - 163	
Benzene	1	0.025	0.0226	90.4	74.8 - 121	
Bromodichloromethane	1	0.025	0.0226	90.6	75.1 - 116	
Bromoform	1	0.025	0.0268	107	67.5 - 130	
Bromomethane	1	0.025	0.0314	126	49.9 - 162	
Carbon disulfide	1	0.025	0.0217	86.9	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0241	96.4	70.2 - 123	
Chlorobenzene	1	0.025	0.0261	105	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0263	105	74 - 121	
Chloroethane	1	0.025	0.0265	106	61.7 - 135	
Chloroform	1	0.025	0.0223	89.4	76 - 121	
Chloromethane	1	0.025	0.0202	80.8	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0236	94.2	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0236	94.4	78.2 - 120	
Ethylbenzene	1	0.025	0.0259	104	78.8 - 122	
Isopropylbenzene	1	0.025	0.0260	104	78.6 - 132	
m&p-Xylenes	1	0.05	0.0522	104	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0211	84.5	71.2 - 126	
Methylene Chloride	1	0.025	0.0234	93.8	70.3 - 120	
Naphthalene	1	0.025	0.0203	81.2	68.4 - 128	
n-Butylbenzene	1	0.025	0.0220	88.1	76.2 - 126	
n-Propylbenzene	1	0.025	0.0259	103	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0250	100	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0271	108	74 - 131	
sec-Butylbenzene	1	0.025	0.0266	107	74.4 - 127	
Styrene	1	0.025	0.0252	101	80.4 - 126	
Tetrachloroethene	1	0.025	0.0299	120	72.6 - 126	
Toluene	1	0.025	0.0260	104	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0235	94.1	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0240	95.8	74.3 - 123	
Trichloroethene	1	0.025	0.0276	110	77.7 - 118	
Vinyl chloride	1	0.025	0.0182	72.7	65.9 - 128	
Xylenes, Total	1	0.075	0.0772	103	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG755340**
 Analysis Date: 11/22/2014 12:20:00 AM Analyst: 611
 Instrument ID: VOCMS25
 Sample Numbers: L733743-06, -07, -08, -09, -10, -11, -12

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0279	112	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0244	97.6	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0263	105	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0273	109	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0235	93.9	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0213	85.4	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0258	103	75 - 123	
1,2-Dibromoethane	1	0.025	0.0285	114	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0221	88.5	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0256	102	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0261	104	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1061	84.9	55 - 149	
2-Hexanone	1	0.125	0.1338	107	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1248	99.9	70.5 - 133	
Acetone	1	0.125	0.0923	73.9	35.6 - 163	
Benzene	1	0.025	0.0240	95.8	74.8 - 121	
Bromodichloromethane	1	0.025	0.0248	99	75.1 - 116	
Bromoform	1	0.025	0.0290	116	67.5 - 130	
Bromomethane	1	0.025	0.0300	120	49.9 - 162	
Carbon disulfide	1	0.025	0.0234	93.5	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0249	99.6	70.2 - 123	
Chlorobenzene	1	0.025	0.0284	114	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0288	115	74 - 121	
Chloroethane	1	0.025	0.0268	107	61.7 - 135	
Chloroform	1	0.025	0.0237	94.8	76 - 121	
Chloromethane	1	0.025	0.0210	84.1	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0251	100	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0259	103	78.2 - 120	
Ethylbenzene	1	0.025	0.0273	109	78.8 - 122	
Isopropylbenzene	1	0.025	0.0274	110	78.6 - 132	
m&p-Xylenes	1	0.05	0.0550	110	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0234	93.4	71.2 - 126	
Methylene Chloride	1	0.025	0.0246	98.5	70.3 - 120	
Naphthalene	1	0.025	0.0229	91.6	68.4 - 128	
n-Butylbenzene	1	0.025	0.0233	93.4	76.2 - 126	
n-Propylbenzene	1	0.025	0.0270	108	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0264	106	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0280	112	74 - 131	
sec-Butylbenzene	1	0.025	0.0279	112	74.4 - 127	
Styrene	1	0.025	0.0276	111	80.4 - 126	
Tetrachloroethene	1	0.025	0.0310	124	72.6 - 126	
Toluene	1	0.025	0.0274	110	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0249	99.4	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0273	109	74.3 - 123	
Trichloroethene	1	0.025	0.0286	114	77.7 - 118	
Vinyl chloride	1	0.025	0.0191	76.4	65.9 - 128	
Xylenes, Total	1	0.075	0.0814	109	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		% Rec		Control RPD	
							Limits	Qual	Qual	% RPD	Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0269	108	0.0279	112	74.2 - 124			3.54	20	
1,1,1-Trichloroethane	1	0.025	0.0235	93.9	0.0244	97.6	73.2 - 123			3.8	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0239	95.7	0.0263	105	70.7 - 122			9.59	20	
1,1,2-Trichloroethane	1	0.025	0.0245	97.9	0.0273	109	77.7 - 118			10.8	20	
1,1-Dichloroethane	1	0.025	0.0221	88.6	0.0235	93.9	70.7 - 126			5.83	20	
1,1-Dichloroethene	1	0.025	0.0210	83.9	0.0213	85.4	67.8 - 129			1.71	20	
1,2,4-Trimethylbenzene	1	0.025	0.0241	96.5	0.0258	103	75 - 123			6.69	20	
1,2-Dibromoethane	1	0.025	0.0258	103	0.0285	114	76.6 - 121			10.1	20	
1,2-Dichloroethane	1	0.025	0.0201	80.3	0.0221	88.5	68.8 - 124			9.73	20	
1,2-Dichloropropane	1	0.025	0.0236	94.2	0.0256	102	76.5 - 119			8.25	20	
1,3,5-Trimethylbenzene	1	0.025	0.0248	99.2	0.0261	104	75.6 - 124			5.17	20	
2-Butanone (MEK)	1	0.125	0.0932	74.6	0.1061	84.9	55 - 149			13	20	
2-Hexanone	1	0.125	0.1173	93.8	0.1338	107	65.6 - 144			13.2	20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1098	87.8	0.1248	99.9	70.5 - 133			12.8	20	
Acetone	1	0.125	0.0785	62.8	0.0923	73.9	35.6 - 163			16.2	23.9	
Benzene	1	0.025	0.0226	90.4	0.0240	95.8	74.8 - 121			5.76	20	
Bromodichloromethane	1	0.025	0.0226	90.6	0.0248	99	75.1 - 116			8.92	20	
Bromoform	1	0.025	0.0268	107	0.0290	116	67.5 - 130			8.18	20	
Bromomethane	1	0.025	0.0314	126	0.0300	120	49.9 - 162			4.75	20	
Carbon disulfide	1	0.025	0.0217	86.9	0.0234	93.5	64.6 - 140			7.25	20	
Carbon tetrachloride	1	0.025	0.0241	96.4	0.0249	99.6	70.2 - 123			3.3	20	
Chlorobenzene	1	0.025	0.0261	105	0.0284	114	78.1 - 119			8.44	20	
Chlorodibromomethane	1	0.025	0.0263	105	0.0288	115	74 - 121			9.08	20	
Chloroethane	1	0.025	0.0265	106	0.0268	107	61.7 - 135			1.24	20	
Chloroform	1	0.025	0.0223	89.4	0.0237	94.8	76 - 121			5.9	20	
Chloromethane	1	0.025	0.0202	80.8	0.0210	84.1	61.5 - 129			3.91	20	
cis-1,2-Dichloroethene	1	0.025	0.0236	94.2	0.0251	100	76 - 119			6.41	20	
cis-1,3-Dichloropropene	1	0.025	0.0236	94.4	0.0259	103	78.2 - 120			9.17	20	
Ethylbenzene	1	0.025	0.0259	104	0.0273	109	78.8 - 122			5.15	20	
Isopropylbenzene	1	0.025	0.0260	104	0.0274	110	78.6 - 132			5.28	20	
m&p-Xylenes	1	0.05	0.0522	104	0.0550	110	78.8 - 121			5.32	20	
Methyl tert-butyl ether	1	0.025	0.0211	84.5	0.0234	93.4	71.2 - 126			10	20	
Methylene Chloride	1	0.025	0.0234	93.8	0.0246	98.5	70.3 - 120			4.92	20	
Naphthalene	1	0.025	0.0203	81.2	0.0229	91.6	68.4 - 128			12	20	
n-Butylbenzene	1	0.025	0.0220	88.1	0.0233	93.4	76.2 - 126			5.82	20	
n-Propylbenzene	1	0.025	0.0259	103	0.0270	108	78.2 - 122			4.4	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
o-Xylene	1	0.025	0.0250	100	0.0264	106	77.6 - 122		5.29	20
p-Isopropyltoluene	1	0.025	0.0271	108	0.0280	112	74 - 131		3.17	20
sec-Butylbenzene	1	0.025	0.0266	107	0.0279	112	74.4 - 127		4.77	20
Styrene	1	0.025	0.0252	101	0.0276	111	80.4 - 126		9.36	20
Tetrachloroethene	1	0.025	0.0299	120	0.0310	124	72.6 - 126		3.54	20
Toluene	1	0.025	0.0260	104	0.0274	110	79.7 - 116		5.43	20
trans-1,2-Dichloroethene	1	0.025	0.0235	94.1	0.0249	99.4	72.6 - 121		5.49	20
trans-1,3-Dichloropropene	1	0.025	0.0240	95.8	0.0273	109	74.3 - 123		13.1	20
Trichloroethene	1	0.025	0.0276	110	0.0286	114	77.7 - 118		3.54	20
Vinyl chloride	1	0.025	0.0182	72.7	0.0191	76.4	65.9 - 128		4.95	20
Xylenes, Total	1	0.075	0.0772	103	0.0814	109	78.7 - 121		5.31	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755673
Analysis Date:	11/21/2014 8:51:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-106, -107, -110, -115		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0272	109	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0243	97	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0253	101	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0252	101	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0230	92	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0218	87.3	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0256	103	75 - 123	
1,2-Dibromoethane	1	0.025	0.0265	106	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0207	82.8	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0242	96.9	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0253	101	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.0991	79.3	55 - 149	
2-Hexanone	1	0.125	0.1238	99	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1175	94	70.5 - 133	
Acetone	1	0.125	0.0881	70.5	35.6 - 163	
Benzene	1	0.025	0.0231	92.3	74.8 - 121	
Bromodichloromethane	1	0.025	0.0230	92.2	75.1 - 116	
Bromoform	1	0.025	0.0276	110	67.5 - 130	
Bromomethane	1	0.025	0.0359	144	49.9 - 162	
Carbon disulfide	1	0.025	0.0257	103	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0249	99.8	70.2 - 123	
Chlorobenzene	1	0.025	0.0267	107	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0268	107	74 - 121	
Chloroethane	1	0.025	0.0291	116	61.7 - 135	
Chloroform	1	0.025	0.0231	92.3	76 - 121	
Chloromethane	1	0.025	0.0213	85.1	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0243	97.4	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0239	95.6	78.2 - 120	
Ethylbenzene	1	0.025	0.0263	105	78.8 - 122	
Isopropylbenzene	1	0.025	0.0269	107	78.6 - 132	
m&p-Xylenes	1	0.05	0.0532	106	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0230	92	71.2 - 126	
Methylene Chloride	1	0.025	0.0252	101	70.3 - 120	
Naphthalene	1	0.025	0.0226	90.6	68.4 - 128	
n-Butylbenzene	1	0.025	0.0234	93.7	76.2 - 126	
n-Propylbenzene	1	0.025	0.0261	104	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755673
Analysis Date:	11/21/2014 8:51:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-106, -107, -110, -115		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0260	104	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0283	113	74 - 131	
sec-Butylbenzene	1	0.025	0.0276	111	74.4 - 127	
Styrene	1	0.025	0.0257	103	80.4 - 126	
Tetrachloroethene	1	0.025	0.0308	123	72.6 - 126	
Toluene	1	0.025	0.0265	106	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0248	99.1	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0247	98.9	74.3 - 123	
Trichloroethene	1	0.025	0.0278	111	77.7 - 118	
Vinyl chloride	1	0.025	0.0194	77.5	65.9 - 128	
Xylenes, Total	1	0.075	0.0792	106	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755673
Analysis Date:	11/21/2014 8:51:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-106, -107, -110, -115		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0249	99.6	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0211	84.6	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0231	92.2	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0237	94.7	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0202	80.8	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0192	76.9	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0232	92.9	75 - 123	
1,2-Dibromoethane	1	0.025	0.0247	98.7	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0195	77.9	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0223	89.2	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0239	95.4	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.0909	72.7	55 - 149	
2-Hexanone	1	0.125	0.1134	90.8	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1080	86.4	70.5 - 133	
Acetone	1	0.125	0.0802	64.1	35.6 - 163	
Benzene	1	0.025	0.0209	83.7	74.8 - 121	
Bromodichloromethane	1	0.025	0.0216	86.6	75.1 - 116	
Bromoform	1	0.025	0.0256	102	67.5 - 130	
Bromomethane	1	0.025	0.0267	107	49.9 - 162	
Carbon disulfide	1	0.025	0.0218	87.3	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0215	85.8	70.2 - 123	
Chlorobenzene	1	0.025	0.0249	99.7	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0250	100	74 - 121	
Chloroethane	1	0.025	0.0245	97.9	61.7 - 135	
Chloroform	1	0.025	0.0205	82.1	76 - 121	
Chloromethane	1	0.025	0.0189	75.7	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0220	88	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0229	91.5	78.2 - 120	
Ethylbenzene	1	0.025	0.0242	96.9	78.8 - 122	
Isopropylbenzene	1	0.025	0.0240	96.1	78.6 - 132	
m&p-Xylenes	1	0.05	0.0486	97.1	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0202	80.6	71.2 - 126	
Methylene Chloride	1	0.025	0.0220	87.9	70.3 - 120	
Naphthalene	1	0.025	0.0202	80.7	68.4 - 128	
n-Butylbenzene	1	0.025	0.0216	86.3	76.2 - 126	
n-Propylbenzene	1	0.025	0.0243	97.3	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755673
Analysis Date:	11/21/2014 8:51:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-106, -107, -110, -115		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0237	94.9	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0265	106	74 - 131	
sec-Butylbenzene	1	0.025	0.0247	98.8	74.4 - 127	
Styrene	1	0.025	0.0241	96.5	80.4 - 126	
Tetrachloroethene	1	0.025	0.0280	112	72.6 - 126	
Toluene	1	0.025	0.0249	99.4	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0212	84.7	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0242	96.7	74.3 - 123	
Trichloroethene	1	0.025	0.0250	99.8	77.7 - 118	
Vinyl chloride	1	0.025	0.0173	69.4	65.9 - 128	
Xylenes, Total	1	0.075	0.0723	96.4	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755673
Analysis Date:	11/21/2014 8:51:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-106, -107, -110, -115		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		% Rec		Control RPD	
							Limits	Qual	Qual	% RPD	Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0272	109	0.0249	99.6	74.2 - 124		8.84		20	
1,1,1-Trichloroethane	1	0.025	0.0243	97	0.0211	84.6	73.2 - 123		13.7		20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0253	101	0.0231	92.2	70.7 - 122		9.3		20	
1,1,2-Trichloroethane	1	0.025	0.0252	101	0.0237	94.7	77.7 - 118		6.12		20	
1,1-Dichloroethane	1	0.025	0.0230	92	0.0202	80.8	70.7 - 126		12.9		20	
1,1-Dichloroethene	1	0.025	0.0218	87.3	0.0192	76.9	67.8 - 129		12.7		20	
1,2,4-Trimethylbenzene	1	0.025	0.0256	103	0.0232	92.9	75 - 123		9.91		20	
1,2-Dibromoethane	1	0.025	0.0265	106	0.0247	98.7	76.6 - 121		7.09		20	
1,2-Dichloroethane	1	0.025	0.0207	82.8	0.0195	77.9	68.8 - 124		6.14		20	
1,2-Dichloropropane	1	0.025	0.0242	96.9	0.0223	89.2	76.5 - 119		8.19		20	
1,3,5-Trimethylbenzene	1	0.025	0.0253	101	0.0239	95.4	75.6 - 124		5.91		20	
2-Butanone (MEK)	1	0.125	0.0991	79.3	0.0909	72.7	55 - 149		8.7		20	
2-Hexanone	1	0.125	0.1238	99	0.1134	90.8	65.6 - 144		8.69		20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1175	94	0.1080	86.4	70.5 - 133		8.51		20	
Acetone	1	0.125	0.0881	70.5	0.0802	64.1	35.6 - 163		9.48		23.9	
Benzene	1	0.025	0.0231	92.3	0.0209	83.7	74.8 - 121		9.71		20	
Bromodichloromethane	1	0.025	0.0230	92.2	0.0216	86.6	75.1 - 116		6.27		20	
Bromoform	1	0.025	0.0276	110	0.0256	102	67.5 - 130		7.51		20	
Bromomethane	1	0.025	0.0359	144	0.0267	107	49.9 - 162		29.7		20	J3
Carbon disulfide	1	0.025	0.0257	103	0.0218	87.3	64.6 - 140		16.4		20	
Carbon tetrachloride	1	0.025	0.0249	99.8	0.0215	85.8	70.2 - 123		15		20	
Chlorobenzene	1	0.025	0.0267	107	0.0249	99.7	78.1 - 119		6.87		20	
Chlorodibromomethane	1	0.025	0.0268	107	0.0250	100	74 - 121		6.7		20	
Chloroethane	1	0.025	0.0291	116	0.0245	97.9	61.7 - 135		17.2		20	
Chloroform	1	0.025	0.0231	92.3	0.0205	82.1	76 - 121		11.7		20	
Chloromethane	1	0.025	0.0213	85.1	0.0189	75.7	61.5 - 129		11.6		20	
cis-1,2-Dichloroethene	1	0.025	0.0243	97.4	0.0220	88	76 - 119		10		20	
cis-1,3-Dichloropropene	1	0.025	0.0239	95.6	0.0229	91.5	78.2 - 120		4.35		20	
Ethylbenzene	1	0.025	0.0263	105	0.0242	96.9	78.8 - 122		8.34		20	
Isopropylbenzene	1	0.025	0.0269	107	0.0240	96.1	78.6 - 132		11.1		20	
m&p-Xylenes	1	0.05	0.0532	106	0.0486	97.1	78.8 - 121		9.05		20	
Methyl tert-butyl ether	1	0.025	0.0230	92	0.0202	80.6	71.2 - 126		13.2		20	
Methylene Chloride	1	0.025	0.0252	101	0.0220	87.9	70.3 - 120		13.6		20	
Naphthalene	1	0.025	0.0226	90.6	0.0202	80.7	68.4 - 128		11.5		20	
n-Butylbenzene	1	0.025	0.0234	93.7	0.0216	86.3	76.2 - 126		8.23		20	
n-Propylbenzene	1	0.025	0.0261	104	0.0243	97.3	78.2 - 122		7		20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755673
Analysis Date:	11/21/2014 8:51:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-106, -107, -110, -115		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
o-Xylene	1	0.025	0.0260	104	0.0237	94.9	77.6 - 122		9.32	20
p-Isopropyltoluene	1	0.025	0.0283	113	0.0265	106	74 - 131		6.67	20
sec-Butylbenzene	1	0.025	0.0276	111	0.0247	98.8	74.4 - 127		11.2	20
Styrene	1	0.025	0.0257	103	0.0241	96.5	80.4 - 126		6.41	20
Tetrachloroethene	1	0.025	0.0308	123	0.0280	112	72.6 - 126		9.66	20
Toluene	1	0.025	0.0265	106	0.0249	99.4	79.7 - 116		6.3	20
trans-1,2-Dichloroethene	1	0.025	0.0248	99.1	0.0212	84.7	72.6 - 121		15.7	20
trans-1,3-Dichloropropene	1	0.025	0.0247	98.9	0.0242	96.7	74.3 - 123		2.26	20
Trichloroethene	1	0.025	0.0278	111	0.0250	99.8	77.7 - 118		10.7	20
Vinyl chloride	1	0.025	0.0194	77.5	0.0173	69.4	65.9 - 128		11	20
Xylenes, Total	1	0.075	0.0792	106	0.0723	96.4	78.7 - 121		9.14	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755736
Analysis Date:	11/20/2014 4:24:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0267	107	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0273	109	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0269	108	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0280	112	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0284	114	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0247	98.7	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0260	104	75 - 123	
1,2-Dibromoethane	1	0.025	0.0253	101	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0264	106	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0281	112	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0270	108	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1529	122	55 - 149	
2-Hexanone	1	0.125	0.1373	110	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1320	106	70.5 - 133	
Acetone	1	0.125	0.1274	102	35.6 - 163	
Benzene	1	0.025	0.0282	113	74.8 - 121	
Bromodichloromethane	1	0.025	0.0252	101	75.1 - 116	
Bromoform	1	0.025	0.0246	98.3	67.5 - 130	
Bromomethane	1	0.025	0.0439	176	49.9 - 162	J4
Carbon disulfide	1	0.025	0.0263	105	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0257	103	70.2 - 123	
Chlorobenzene	1	0.025	0.0263	105	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0251	100	74 - 121	
Chloroethane	1	0.025	0.0295	118	61.7 - 135	
Chloroform	1	0.025	0.0280	112	76 - 121	
Chloromethane	1	0.025	0.0264	106	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0268	107	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0268	107	78.2 - 120	
Ethylbenzene	1	0.025	0.0265	106	78.8 - 122	
Isopropylbenzene	1	0.025	0.0266	106	78.6 - 132	
m&p-Xylenes	1	0.05	0.0521	104	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0288	115	71.2 - 126	
Methylene Chloride	1	0.025	0.0285	114	70.3 - 120	
Naphthalene	1	0.025	0.0284	113	68.4 - 128	
n-Butylbenzene	1	0.025	0.0279	112	76.2 - 126	
n-Propylbenzene	1	0.025	0.0270	108	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755736
Analysis Date:	11/20/2014 4:24:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0270	108	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0268	107	74 - 131	
sec-Butylbenzene	1	0.025	0.0274	109	74.4 - 127	
Styrene	1	0.025	0.0271	108	80.4 - 126	
Tetrachloroethene	1	0.025	0.0262	105	72.6 - 126	
Toluene	1	0.025	0.0260	104	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0269	108	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0243	97.3	74.3 - 123	
Trichloroethene	1	0.025	0.0279	111	77.7 - 118	
Vinyl chloride	1	0.025	0.0270	108	65.9 - 128	
Xylenes, Total	1	0.075	0.0791	105	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755736
Analysis Date:	11/20/2014 4:24:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0256	102	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0255	102	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0265	106	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0267	107	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0267	107	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0233	93	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0249	99.4	75 - 123	
1,2-Dibromoethane	1	0.025	0.0251	100	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0247	98.7	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0271	108	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0259	104	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1408	113	55 - 149	
2-Hexanone	1	0.125	0.1344	108	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1254	100	70.5 - 133	
Acetone	1	0.125	0.1173	93.8	35.6 - 163	
Benzene	1	0.025	0.0270	108	74.8 - 121	
Bromodichloromethane	1	0.025	0.0242	96.7	75.1 - 116	
Bromoform	1	0.025	0.0231	92.5	67.5 - 130	
Bromomethane	1	0.025	0.0412	165	49.9 - 162	J4
Carbon disulfide	1	0.025	0.0249	99.4	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0246	98.4	70.2 - 123	
Chlorobenzene	1	0.025	0.0260	104	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0247	98.7	74 - 121	
Chloroethane	1	0.025	0.0283	113	61.7 - 135	
Chloroform	1	0.025	0.0264	106	76 - 121	
Chloromethane	1	0.025	0.0246	98.3	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0246	98.6	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0257	103	78.2 - 120	
Ethylbenzene	1	0.025	0.0260	104	78.8 - 122	
Isopropylbenzene	1	0.025	0.0256	102	78.6 - 132	
m&p-Xylenes	1	0.05	0.0508	102	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0265	106	71.2 - 126	
Methylene Chloride	1	0.025	0.0266	106	70.3 - 120	
Naphthalene	1	0.025	0.0287	115	68.4 - 128	
n-Butylbenzene	1	0.025	0.0275	110	76.2 - 126	
n-Propylbenzene	1	0.025	0.0259	104	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755736
Analysis Date:	11/20/2014 4:24:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0265	106	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0258	103	74 - 131	
sec-Butylbenzene	1	0.025	0.0261	104	74.4 - 127	
Styrene	1	0.025	0.0261	105	80.4 - 126	
Tetrachloroethene	1	0.025	0.0254	102	72.6 - 126	
Toluene	1	0.025	0.0249	99.5	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0256	102	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0230	92	74.3 - 123	
Trichloroethene	1	0.025	0.0258	103	77.7 - 118	
Vinyl chloride	1	0.025	0.0251	101	65.9 - 128	
Xylenes, Total	1	0.075	0.0772	103	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755736
Analysis Date:	11/20/2014 4:24:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0267	107	0.0256	102	74.2 - 124		4.25	20
1,1,1-Trichloroethane	1	0.025	0.0273	109	0.0255	102	73.2 - 123		6.88	20
1,1,2,2-Tetrachloroethane	1	0.025	0.0269	108	0.0265	106	70.7 - 122		1.67	20
1,1,2-Trichloroethane	1	0.025	0.0280	112	0.0267	107	77.7 - 118		4.57	20
1,1-Dichloroethane	1	0.025	0.0284	114	0.0267	107	70.7 - 126		6.06	20
1,1-Dichloroethene	1	0.025	0.0247	98.7	0.0233	93	67.8 - 129		5.95	20
1,2,4-Trimethylbenzene	1	0.025	0.0260	104	0.0249	99.4	75 - 123		4.44	20
1,2-Dibromoethane	1	0.025	0.0253	101	0.0251	100	76.6 - 121		0.86	20
1,2-Dichloroethane	1	0.025	0.0264	106	0.0247	98.7	68.8 - 124		6.84	20
1,2-Dichloropropane	1	0.025	0.0281	112	0.0271	108	76.5 - 119		3.64	20
1,3,5-Trimethylbenzene	1	0.025	0.0270	108	0.0259	104	75.6 - 124		4.2	20
2-Butanone (MEK)	1	0.125	0.1529	122	0.1408	113	55 - 149		8.22	20
2-Hexanone	1	0.125	0.1373	110	0.1344	108	65.6 - 144		2.16	20
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1320	106	0.1254	100	70.5 - 133		5.16	20
Acetone	1	0.125	0.1274	102	0.1173	93.8	35.6 - 163		8.22	23.9
Benzene	1	0.025	0.0282	113	0.0270	108	74.8 - 121		4.34	20
Bromodichloromethane	1	0.025	0.0252	101	0.0242	96.7	75.1 - 116		4.19	20
Bromoform	1	0.025	0.0246	98.3	0.0231	92.5	67.5 - 130		6.05	20
Bromomethane	1	0.025	0.0439	176	0.0412	165	49.9 - 162	J4	6.27	20
Carbon disulfide	1	0.025	0.0263	105	0.0249	99.4	64.6 - 140		5.73	20
Carbon tetrachloride	1	0.025	0.0257	103	0.0246	98.4	70.2 - 123		4.5	20
Chlorobenzene	1	0.025	0.0263	105	0.0260	104	78.1 - 119		1.08	20
Chlorodibromomethane	1	0.025	0.0251	100	0.0247	98.7	74 - 121		1.79	20
Chloroethane	1	0.025	0.0295	118	0.0283	113	61.7 - 135		4.19	20
Chloroform	1	0.025	0.0280	112	0.0264	106	76 - 121		5.79	20
Chloromethane	1	0.025	0.0264	106	0.0246	98.3	61.5 - 129		7.1	20
cis-1,2-Dichloroethene	1	0.025	0.0268	107	0.0246	98.6	76 - 119		8.27	20
cis-1,3-Dichloropropene	1	0.025	0.0268	107	0.0257	103	78.2 - 120		4.04	20
Ethylbenzene	1	0.025	0.0265	106	0.0260	104	78.8 - 122		1.9	20
Isopropylbenzene	1	0.025	0.0266	106	0.0256	102	78.6 - 132		4	20
m&p-Xylenes	1	0.05	0.0521	104	0.0508	102	78.8 - 121		2.6	20
Methyl tert-butyl ether	1	0.025	0.0288	115	0.0265	106	71.2 - 126		8.59	20
Methylene Chloride	1	0.025	0.0285	114	0.0266	106	70.3 - 120		6.94	20
Naphthalene	1	0.025	0.0284	113	0.0287	115	68.4 - 128		1.09	20
n-Butylbenzene	1	0.025	0.0279	112	0.0275	110	76.2 - 126		1.57	20
n-Propylbenzene	1	0.025	0.0270	108	0.0259	104	78.2 - 122		3.9	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755736
Analysis Date:	11/20/2014 4:24:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	% RPD	Limits Qual
o-Xylene	1	0.025	0.0270	108	0.0265	106	77.6 - 122		1.97	20
p-Isopropyltoluene	1	0.025	0.0268	107	0.0258	103	74 - 131		4	20
sec-Butylbenzene	1	0.025	0.0274	109	0.0261	104	74.4 - 127		4.83	20
Styrene	1	0.025	0.0271	108	0.0261	105	80.4 - 126		3.63	20
Tetrachloroethene	1	0.025	0.0262	105	0.0254	102	72.6 - 126		3.02	20
Toluene	1	0.025	0.0260	104	0.0249	99.5	79.7 - 116		4.39	20
trans-1,2-Dichloroethene	1	0.025	0.0269	108	0.0256	102	72.6 - 121		4.93	20
trans-1,3-Dichloropropene	1	0.025	0.0243	97.3	0.0230	92	74.3 - 123		5.52	20
Trichloroethene	1	0.025	0.0279	111	0.0258	103	77.7 - 118		7.64	20
Vinyl chloride	1	0.025	0.0270	108	0.0251	101	65.9 - 128		7.11	20
Xylenes, Total	1	0.075	0.0791	105	0.0772	103	78.7 - 121		2.38	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0289	116	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0288	115	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0265	106	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0270	108	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0269	108	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0275	110	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0279	112	75 - 123	
1,2-Dibromoethane	1	0.025	0.0257	103	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0250	100	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0266	107	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0286	114	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.0971	77.7	55 - 149	
2-Hexanone	1	0.125	0.1120	89.6	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1163	93.1	70.5 - 133	
Acetone	1	0.125	0.1032	82.5	35.6 - 163	
Benzene	1	0.025	0.0266	106	74.8 - 121	
Bromodichloromethane	1	0.025	0.0258	103	75.1 - 116	
Bromoform	1	0.025	0.0270	108	67.5 - 130	
Bromomethane	1	0.025	0.0302	121	49.9 - 162	
Carbon disulfide	1	0.025	0.0277	111	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0269	107	70.2 - 123	
Chlorobenzene	1	0.025	0.0282	113	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0262	105	74 - 121	
Chloroethane	1	0.025	0.0298	119	61.7 - 135	
Chloroform	1	0.025	0.0274	110	76 - 121	
Chloromethane	1	0.025	0.0242	96.8	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0274	110	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0259	104	78.2 - 120	
Ethylbenzene	1	0.025	0.0275	110	78.8 - 122	
Isopropylbenzene	1	0.025	0.0287	115	78.6 - 132	
m&p-Xylenes	1	0.05	0.0558	112	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0278	111	71.2 - 126	
Methylene Chloride	1	0.025	0.0273	109	70.3 - 120	
Naphthalene	1	0.025	0.0249	99.8	68.4 - 128	
n-Butylbenzene	1	0.025	0.0250	100	76.2 - 126	
n-Propylbenzene	1	0.025	0.0279	112	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0274	110	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0286	114	74 - 131	
sec-Butylbenzene	1	0.025	0.0291	116	74.4 - 127	
Styrene	1	0.025	0.0277	111	80.4 - 126	
Tetrachloroethene	1	0.025	0.0300	120	72.6 - 126	
Toluene	1	0.025	0.0261	104	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0289	116	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0242	97	74.3 - 123	
Trichloroethene	1	0.025	0.0291	116	77.7 - 118	
Vinyl chloride	1	0.025	0.0280	112	65.9 - 128	
Xylenes, Total	1	0.075	0.0832	111	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0248	99.3	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0254	102	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0237	94.6	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0241	96.3	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0225	90	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0229	91.5	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0239	95.5	75 - 123	
1,2-Dibromoethane	1	0.025	0.0233	93.3	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0222	88.7	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0231	92.5	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0246	98.6	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.0885	70.8	55 - 149	
2-Hexanone	1	0.125	0.1023	81.9	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1031	82.5	70.5 - 133	
Acetone	1	0.125	0.0904	72.3	35.6 - 163	
Benzene	1	0.025	0.0229	91.5	74.8 - 121	
Bromodichloromethane	1	0.025	0.0224	89.5	75.1 - 116	
Bromoform	1	0.025	0.0238	95.1	67.5 - 130	
Bromomethane	1	0.025	0.0251	100	49.9 - 162	
Carbon disulfide	1	0.025	0.0232	93	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0230	92	70.2 - 123	
Chlorobenzene	1	0.025	0.0248	99.1	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0232	92.7	74 - 121	
Chloroethane	1	0.025	0.0250	99.9	61.7 - 135	
Chloroform	1	0.025	0.0233	93.1	76 - 121	
Chloromethane	1	0.025	0.0199	79.8	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0234	93.4	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0227	90.7	78.2 - 120	
Ethylbenzene	1	0.025	0.0242	96.8	78.8 - 122	
Isopropylbenzene	1	0.025	0.0250	100	78.6 - 132	
m&p-Xylenes	1	0.05	0.0491	98.1	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0236	94.5	71.2 - 126	
Methylene Chloride	1	0.025	0.0226	90.5	70.3 - 120	
Naphthalene	1	0.025	0.0210	84	68.4 - 128	
n-Butylbenzene	1	0.025	0.0214	85.6	76.2 - 126	
n-Propylbenzene	1	0.025	0.0243	97.1	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0236	94.3	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0248	99.2	74 - 131	
sec-Butylbenzene	1	0.025	0.0249	99.6	74.4 - 127	
Styrene	1	0.025	0.0242	96.8	80.4 - 126	
Tetrachloroethene	1	0.025	0.0269	108	72.6 - 126	
Toluene	1	0.025	0.0228	91.2	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0244	97.5	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0225	90	74.3 - 123	
Trichloroethene	1	0.025	0.0252	101	77.7 - 118	
Vinyl chloride	1	0.025	0.0233	93.3	65.9 - 128	
Xylenes, Total	1	0.075	0.0726	96.9	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCS D	% Rec	Control		% Rec		Control RPD	
							Limits	Qual	Qual	% RPD	Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0289	116	0.0248	99.3	74.2 - 124			15.1	20	
1,1,1-Trichloroethane	1	0.025	0.0288	115	0.0254	102	73.2 - 123			12.5	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0265	106	0.0237	94.6	70.7 - 122			11.3	20	
1,1,2-Trichloroethane	1	0.025	0.0270	108	0.0241	96.3	77.7 - 118			11.4	20	
1,1-Dichloroethane	1	0.025	0.0269	108	0.0225	90	70.7 - 126			17.8	20	
1,1-Dichloroethene	1	0.025	0.0275	110	0.0229	91.5	67.8 - 129			18.2	20	
1,2,4-Trimethylbenzene	1	0.025	0.0279	112	0.0239	95.5	75 - 123			15.8	20	
1,2-Dibromoethane	1	0.025	0.0257	103	0.0233	93.3	76.6 - 121			9.61	20	
1,2-Dichloroethane	1	0.025	0.0250	100	0.0222	88.7	68.8 - 124			11.9	20	
1,2-Dichloropropane	1	0.025	0.0266	107	0.0231	92.5	76.5 - 119			14.1	20	
1,3,5-Trimethylbenzene	1	0.025	0.0286	114	0.0246	98.6	75.6 - 124			14.8	20	
2-Butanone (MEK)	1	0.125	0.0971	77.7	0.0885	70.8	55 - 149			9.28	20	
2-Hexanone	1	0.125	0.1120	89.6	0.1023	81.9	65.6 - 144			8.99	20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1163	93.1	0.1031	82.5	70.5 - 133			12.1	20	
Acetone	1	0.125	0.1032	82.5	0.0904	72.3	35.6 - 163			13.2	23.9	
Benzene	1	0.025	0.0266	106	0.0229	91.5	74.8 - 121			15.1	20	
Bromodichloromethane	1	0.025	0.0258	103	0.0224	89.5	75.1 - 116			14.2	20	
Bromoform	1	0.025	0.0270	108	0.0238	95.1	67.5 - 130			12.8	20	
Bromomethane	1	0.025	0.0302	121	0.0251	100	49.9 - 162			18.6	20	
Carbon disulfide	1	0.025	0.0277	111	0.0232	93	64.6 - 140			17.3	20	
Carbon tetrachloride	1	0.025	0.0269	107	0.0230	92	70.2 - 123			15.5	20	
Chlorobenzene	1	0.025	0.0282	113	0.0248	99.1	78.1 - 119			13.1	20	
Chlorodibromomethane	1	0.025	0.0262	105	0.0232	92.7	74 - 121			12.4	20	
Chloroethane	1	0.025	0.0298	119	0.0250	99.9	61.7 - 135			17.7	20	
Chloroform	1	0.025	0.0274	110	0.0233	93.1	76 - 121			16.2	20	
Chloromethane	1	0.025	0.0242	96.8	0.0199	79.8	61.5 - 129			19.3	20	
cis-1,2-Dichloroethene	1	0.025	0.0274	110	0.0234	93.4	76 - 119			16.1	20	
cis-1,3-Dichloropropene	1	0.025	0.0259	104	0.0227	90.7	78.2 - 120			13.2	20	
Ethylbenzene	1	0.025	0.0275	110	0.0242	96.8	78.8 - 122			12.7	20	
Isopropylbenzene	1	0.025	0.0287	115	0.0250	100	78.6 - 132			13.8	20	
m&p-Xylenes	1	0.05	0.0558	112	0.0491	98.1	78.8 - 121			12.9	20	
Methyl tert-butyl ether	1	0.025	0.0278	111	0.0236	94.5	71.2 - 126			16.3	20	
Methylene Chloride	1	0.025	0.0273	109	0.0226	90.5	70.3 - 120			18.6	20	
Naphthalene	1	0.025	0.0249	99.8	0.0210	84	68.4 - 128			17.1	20	
n-Butylbenzene	1	0.025	0.0250	100	0.0214	85.6	76.2 - 126			15.7	20	
n-Propylbenzene	1	0.025	0.0279	112	0.0243	97.1	78.2 - 122			14	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
o-Xylene	1	0.025	0.0274	110	0.0236	94.3	77.6 - 122		15	20
p-Isopropyltoluene	1	0.025	0.0286	114	0.0248	99.2	74 - 131		14.3	20
sec-Butylbenzene	1	0.025	0.0291	116	0.0249	99.6	74.4 - 127		15.5	20
Styrene	1	0.025	0.0277	111	0.0242	96.8	80.4 - 126		13.6	20
Tetrachloroethene	1	0.025	0.0300	120	0.0269	108	72.6 - 126		10.8	20
Toluene	1	0.025	0.0261	104	0.0228	91.2	79.7 - 116		13.4	20
trans-1,2-Dichloroethene	1	0.025	0.0289	116	0.0244	97.5	72.6 - 121		17.1	20
trans-1,3-Dichloropropene	1	0.025	0.0242	97	0.0225	90	74.3 - 123		7.5	20
Trichloroethene	1	0.025	0.0291	116	0.0252	101	77.7 - 118		14.4	20
Vinyl chloride	1	0.025	0.0280	112	0.0233	93.3	65.9 - 128		18.3	20
Xylenes, Total	1	0.075	0.0832	111	0.0726	96.9	78.7 - 121		13.6	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0252	101	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0214	85.7	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0232	92.9	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0251	101	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0223	89	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0225	90.1	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0239	95.7	75 - 123	
1,2-Dibromoethane	1	0.025	0.0252	101	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0188	75	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0245	98	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0239	95.7	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1053	84.3	55 - 149	
2-Hexanone	1	0.125	0.1325	106	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1157	92.6	70.5 - 133	
Acetone	1	0.125	0.0963	77	35.6 - 163	
Benzene	1	0.025	0.0220	88.1	74.8 - 121	
Bromodichloromethane	1	0.025	0.0221	88.3	75.1 - 116	
Bromoform	1	0.025	0.0240	95.9	67.5 - 130	
Bromomethane	1	0.025	0.0138	55.3	49.9 - 162	
Carbon disulfide	1	0.025	0.0255	102	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0214	85.5	70.2 - 123	
Chlorobenzene	1	0.025	0.0243	97.3	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0258	103	74 - 121	
Chloroethane	1	0.025	0.0129	51.8	61.7 - 135	J4
Chloroform	1	0.025	0.0214	85.6	76 - 121	
Chloromethane	1	0.025	0.0230	91.9	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0228	91.2	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0239	95.8	78.2 - 120	
Ethylbenzene	1	0.025	0.0244	97.7	78.8 - 122	
Isopropylbenzene	1	0.025	0.0253	101	78.6 - 132	
m&p-Xylenes	1	0.05	0.0491	98.2	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0227	90.9	71.2 - 126	
Methylene Chloride	1	0.025	0.0228	91.3	70.3 - 120	
Naphthalene	1	0.025	0.0288	115	68.4 - 128	
n-Butylbenzene	1	0.025	0.0259	103	76.2 - 126	
n-Propylbenzene	1	0.025	0.0251	100	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0264	105	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0236	94.5	74 - 131	
sec-Butylbenzene	1	0.025	0.0242	97	74.4 - 127	
Styrene	1	0.025	0.0260	104	80.4 - 126	
Tetrachloroethene	1	0.025	0.0243	97	72.6 - 126	
Toluene	1	0.025	0.0220	88.1	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0241	96.3	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0242	96.9	74.3 - 123	
Trichloroethene	1	0.025	0.0238	95.1	77.7 - 118	
Vinyl chloride	1	0.025	0.0202	80.7	65.9 - 128	
Xylenes, Total	1	0.075	0.0755	101	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0279	112	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0244	97.7	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0268	107	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0284	114	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0248	99.1	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0253	101	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0267	107	75 - 123	
1,2-Dibromoethane	1	0.025	0.0279	112	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0207	82.6	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0265	106	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0280	112	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1174	93.9	55 - 149	
2-Hexanone	1	0.125	0.1511	121	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1255	100	70.5 - 133	
Acetone	1	0.125	0.1075	86	35.6 - 163	
Benzene	1	0.025	0.0245	98.1	74.8 - 121	
Bromodichloromethane	1	0.025	0.0243	97.1	75.1 - 116	
Bromoform	1	0.025	0.0274	110	67.5 - 130	
Bromomethane	1	0.025	0.0157	62.7	49.9 - 162	
Carbon disulfide	1	0.025	0.0284	114	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0244	97.5	70.2 - 123	
Chlorobenzene	1	0.025	0.0272	109	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0290	116	74 - 121	
Chloroethane	1	0.025	0.0144	57.6	61.7 - 135	J4
Chloroform	1	0.025	0.0239	95.5	76 - 121	
Chloromethane	1	0.025	0.0254	101	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0253	101	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0268	107	78.2 - 120	
Ethylbenzene	1	0.025	0.0275	110	78.8 - 122	
Isopropylbenzene	1	0.025	0.0291	116	78.6 - 132	
m&p-Xylenes	1	0.05	0.0554	111	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0250	100	71.2 - 126	
Methylene Chloride	1	0.025	0.0251	100	70.3 - 120	
Naphthalene	1	0.025	0.0317	127	68.4 - 128	
n-Butylbenzene	1	0.025	0.0287	115	76.2 - 126	
n-Propylbenzene	1	0.025	0.0282	113	78.2 - 122	



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0295	118	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0269	107	74 - 131	
sec-Butylbenzene	1	0.025	0.0278	111	74.4 - 127	
Styrene	1	0.025	0.0290	116	80.4 - 126	
Tetrachloroethene	1	0.025	0.0278	111	72.6 - 126	
Toluene	1	0.025	0.0244	97.6	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0270	108	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0265	106	74.3 - 123	
Trichloroethene	1	0.025	0.0256	103	77.7 - 118	
Vinyl chloride	1	0.025	0.0230	92.1	65.9 - 128	
Xylenes, Total	1	0.075	0.0849	113	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec	Qual	RPD
1,1,1,2-Tetrachloroethane	1	0.025	0.0252	101	0.0279	112	74.2 - 124		10.2	20
1,1,1-Trichloroethane	1	0.025	0.0214	85.7	0.0244	97.7	73.2 - 123		13.1	20
1,1,2,2-Tetrachloroethane	1	0.025	0.0232	92.9	0.0268	107	70.7 - 122		14.4	20
1,1,2-Trichloroethane	1	0.025	0.0251	101	0.0284	114	77.7 - 118		12.4	20
1,1-Dichloroethane	1	0.025	0.0223	89	0.0248	99.1	70.7 - 126		10.7	20
1,1-Dichloroethene	1	0.025	0.0225	90.1	0.0253	101	67.8 - 129		11.7	20
1,2,4-Trimethylbenzene	1	0.025	0.0239	95.7	0.0267	107	75 - 123		11	20
1,2-Dibromoethane	1	0.025	0.0252	101	0.0279	112	76.6 - 121		10.3	20
1,2-Dichloroethane	1	0.025	0.0188	75	0.0207	82.6	68.8 - 124		9.67	20
1,2-Dichloropropane	1	0.025	0.0245	98	0.0265	106	76.5 - 119		7.73	20
1,3,5-Trimethylbenzene	1	0.025	0.0239	95.7	0.0280	112	75.6 - 124		15.8	20
2-Butanone (MEK)	1	0.125	0.1053	84.3	0.1174	93.9	55 - 149		10.8	20
2-Hexanone	1	0.125	0.1325	106	0.1511	121	65.6 - 144		13.1	20
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1157	92.6	0.1255	100	70.5 - 133		8.14	20
Acetone	1	0.125	0.0963	77	0.1075	86	35.6 - 163		11	23.9
Benzene	1	0.025	0.0220	88.1	0.0245	98.1	74.8 - 121		10.8	20
Bromodichloromethane	1	0.025	0.0221	88.3	0.0243	97.1	75.1 - 116		9.51	20
Bromoform	1	0.025	0.0240	95.9	0.0274	110	67.5 - 130		13.3	20
Bromomethane	1	0.025	0.0138	55.3	0.0157	62.7	49.9 - 162		12.5	20
Carbon disulfide	1	0.025	0.0255	102	0.0284	114	64.6 - 140		10.8	20
Carbon tetrachloride	1	0.025	0.0214	85.5	0.0244	97.5	70.2 - 123		13	20
Chlorobenzene	1	0.025	0.0243	97.3	0.0272	109	78.1 - 119		11.2	20
Chlorodibromomethane	1	0.025	0.0258	103	0.0290	116	74 - 121		11.7	20
Chloroethane	1	0.025	0.0129	51.8	0.0144	57.6	61.7 - 135	J4	10.6	20
Chloroform	1	0.025	0.0214	85.6	0.0239	95.5	76 - 121		11	20
Chloromethane	1	0.025	0.0230	91.9	0.0254	101	61.5 - 129		9.89	20
cis-1,2-Dichloroethene	1	0.025	0.0228	91.2	0.0253	101	76 - 119		10.5	20
cis-1,3-Dichloropropene	1	0.025	0.0239	95.8	0.0268	107	78.2 - 120		11.2	20
Ethylbenzene	1	0.025	0.0244	97.7	0.0275	110	78.8 - 122		11.7	20
Isopropylbenzene	1	0.025	0.0253	101	0.0291	116	78.6 - 132		13.8	20
m&p-Xylenes	1	0.05	0.0491	98.2	0.0554	111	78.8 - 121		12.1	20
Methyl tert-butyl ether	1	0.025	0.0227	90.9	0.0250	100	71.2 - 126		9.55	20
Methylene Chloride	1	0.025	0.0228	91.3	0.0251	100	70.3 - 120		9.52	20
Naphthalene	1	0.025	0.0288	115	0.0317	127	68.4 - 128		9.48	20
n-Butylbenzene	1	0.025	0.0259	103	0.0287	115	76.2 - 126		10.5	20
n-Propylbenzene	1	0.025	0.0251	100	0.0282	113	78.2 - 122		11.7	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	Limits	Qual
o-Xylene	1	0.025	0.0264	105	0.0295	118	77.6 - 122	11.2	20	
p-Isopropyltoluene	1	0.025	0.0236	94.5	0.0269	107	74 - 131	12.9	20	
sec-Butylbenzene	1	0.025	0.0242	97	0.0278	111	74.4 - 127	13.6	20	
Styrene	1	0.025	0.0260	104	0.0290	116	80.4 - 126	11	20	
Tetrachloroethene	1	0.025	0.0243	97	0.0278	111	72.6 - 126	13.5	20	
Toluene	1	0.025	0.0220	88.1	0.0244	97.6	79.7 - 116	10.2	20	
trans-1,2-Dichloroethene	1	0.025	0.0241	96.3	0.0270	108	72.6 - 121	11.6	20	
trans-1,3-Dichloropropene	1	0.025	0.0242	96.9	0.0265	106	74.3 - 123	8.98	20	
Trichloroethene	1	0.025	0.0238	95.1	0.0256	103	77.7 - 118	7.47	20	
Vinyl chloride	1	0.025	0.0202	80.7	0.0230	92.1	65.9 - 128	13.2	20	
Xylenes, Total	1	0.075	0.0755	101	0.0849	113	78.7 - 121	11.8	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0225	90.1	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0293	117	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0258	103	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0246	98.4	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0302	121	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0325	130	67.8 - 129	J4
1,2,4-Trimethylbenzene	1	0.025	0.0241	96.4	75 - 123	
1,2-Dibromoethane	1	0.025	0.0249	99.4	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0303	121	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0274	110	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0245	97.9	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.2310	185	55 - 149	J4
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1478	118	70.5 - 133	
Acetone	1	0.125	0.2983	239	35.6 - 163	J4
Benzene	1	0.025	0.0280	112	74.8 - 121	
Bromodichloromethane	1	0.025	0.0270	108	75.1 - 116	
Bromoform	1	0.025	0.0212	84.7	67.5 - 130	
Bromomethane	1	0.025	0.0268	107	49.9 - 162	
Carbon tetrachloride	1	0.025	0.0282	113	70.2 - 123	
Chlorobenzene	1	0.025	0.0240	96.1	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0244	97.4	74 - 121	
Chloroethane	1	0.025	0.0281	112	61.7 - 135	
Chloroform	1	0.025	0.0294	118	76 - 121	
Chloromethane	1	0.025	0.0260	104	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0280	112	76 - 119	
Ethylbenzene	1	0.025	0.0246	98.5	78.8 - 122	
Isopropylbenzene	1	0.025	0.0241	96.6	78.6 - 132	
m&p-Xylenes	1	0.05	0.0481	96.2	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0283	113	71.2 - 126	
Methylene Chloride	1	0.025	0.0261	105	70.3 - 120	
Naphthalene	1	0.025	0.0260	104	68.4 - 128	
n-Butylbenzene	1	0.025	0.0295	118	76.2 - 126	
n-Propylbenzene	1	0.025	0.0254	102	78.2 - 122	
o-Xylene	1	0.025	0.0241	96.6	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0235	94	74 - 131	
sec-Butylbenzene	1	0.025	0.0244	97.6	74.4 - 127	



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Styrene	1	0.025	0.0245	98.1	80.4 - 126	
Tetrachloroethene	1	0.025	0.0219	87.6	72.6 - 126	
Toluene	1	0.025	0.0271	109	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0268	107	72.6 - 121	
Trichloroethene	1	0.025	0.0243	97.1	77.7 - 118	
Vinyl chloride	1	0.025	0.0281	112	65.9 - 128	
Xylenes, Total	1	0.075	0.0723	96.3	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG756371
Collection Date:	11/11/2014	Analyst:	644
Analysis Date:	11/23/2014 6:59:00 PM		
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0227	90.7	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0291	116	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0247	98.8	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0240	96.2	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0297	119	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0311	124	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0235	93.9	75 - 123	
1,2-Dibromoethane	1	0.025	0.0236	94.6	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0296	118	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0268	107	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0238	95.3	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.2148	172	55 - 149	J4
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1420	114	70.5 - 133	
Acetone	1	0.125	0.2689	215	35.6 - 163	J4
Benzene	1	0.025	0.0278	111	74.8 - 121	
Bromodichloromethane	1	0.025	0.0269	108	75.1 - 116	
Bromoform	1	0.025	0.0205	82.1	67.5 - 130	
Bromomethane	1	0.025	0.0265	106	49.9 - 162	
Carbon tetrachloride	1	0.025	0.0276	110	70.2 - 123	
Chlorobenzene	1	0.025	0.0234	93.6	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0234	93.4	74 - 121	
Chloroethane	1	0.025	0.0282	113	61.7 - 135	
Chloroform	1	0.025	0.0291	116	76 - 121	
Chloromethane	1	0.025	0.0252	101	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0275	110	76 - 119	
Ethylbenzene	1	0.025	0.0237	94.8	78.8 - 122	
Isopropylbenzene	1	0.025	0.0238	95.3	78.6 - 132	
m&p-Xylenes	1	0.05	0.0472	94.4	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0280	112	71.2 - 126	
Methylene Chloride	1	0.025	0.0253	101	70.3 - 120	
Naphthalene	1	0.025	0.0261	104	68.4 - 128	
n-Butylbenzene	1	0.025	0.0290	116	76.2 - 126	
n-Propylbenzene	1	0.025	0.0248	99.1	78.2 - 122	
o-Xylene	1	0.025	0.0233	93.4	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0231	92.2	74 - 131	
sec-Butylbenzene	1	0.025	0.0240	96.2	74.4 - 127	



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG756371**
 Analysis Date: 11/23/2014 6:59:00 PM Analyst: 644
 Instrument ID: VOCMS4
 Sample Numbers: L733743-97

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Styrene	1	0.025	0.0235	94.2	80.4 - 126	
Tetrachloroethene	1	0.025	0.0217	86.7	72.6 - 126	
Toluene	1	0.025	0.0266	106	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0257	103	72.6 - 121	
Trichloroethene	1	0.025	0.0242	96.6	77.7 - 118	
Vinyl chloride	1	0.025	0.0277	111	65.9 - 128	
Xylenes, Total	1	0.075	0.0705	94.1	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0225	90.1	0.0227	90.7	74.2 - 124		0.65	20
1,1,1-Trichloroethane	1	0.025	0.0293	117	0.0291	116	73.2 - 123		0.69	20
1,1,2,2-Tetrachloroethane	1	0.025	0.0258	103	0.0247	98.8	70.7 - 122		4.16	20
1,1,2-Trichloroethane	1	0.025	0.0246	98.4	0.0240	96.2	77.7 - 118		2.24	20
1,1-Dichloroethane	1	0.025	0.0302	121	0.0297	119	70.7 - 126		1.89	20
1,1-Dichloroethene	1	0.025	0.0325	130	0.0311	124	67.8 - 129	J4	4.39	20
1,2,4-Trimethylbenzene	1	0.025	0.0241	96.4	0.0235	93.9	75 - 123		2.65	20
1,2-Dibromoethane	1	0.025	0.0249	99.4	0.0236	94.6	76.6 - 121		4.98	20
1,2-Dichloroethane	1	0.025	0.0303	121	0.0296	118	68.8 - 124		2.42	20
1,2-Dichloropropane	1	0.025	0.0274	110	0.0268	107	76.5 - 119		2.22	20
1,3,5-Trimethylbenzene	1	0.025	0.0245	97.9	0.0238	95.3	75.6 - 124		2.68	20
2-Butanone (MEK)	1	0.125	0.2310	185	0.2148	172	55 - 149	J4	7.26	20
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1478	118	0.1420	114	70.5 - 133		4.01	20
Acetone	1	0.125	0.2983	239	0.2689	215	35.6 - 163	J4	10.4	23.9
Benzene	1	0.025	0.0280	112	0.0278	111	74.8 - 121		0.88	20
Bromodichloromethane	1	0.025	0.0270	108	0.0269	108	75.1 - 116		0.58	20
Bromoform	1	0.025	0.0212	84.7	0.0205	82.1	67.5 - 130		3.18	20
Bromomethane	1	0.025	0.0268	107	0.0265	106	49.9 - 162		1.05	20
Carbon tetrachloride	1	0.025	0.0282	113	0.0276	110	70.2 - 123		2.25	20
Chlorobenzene	1	0.025	0.0240	96.1	0.0234	93.6	78.1 - 119		2.61	20
Chlorodibromomethane	1	0.025	0.0244	97.4	0.0234	93.4	74 - 121		4.2	20
Chloroethane	1	0.025	0.0281	112	0.0282	113	61.7 - 135		0.39	20
Chloroform	1	0.025	0.0294	118	0.0291	116	76 - 121		1.01	20
Chloromethane	1	0.025	0.0260	104	0.0252	101	61.5 - 129		3.06	20
cis-1,2-Dichloroethene	1	0.025	0.0280	112	0.0275	110	76 - 119		1.82	20
Ethylbenzene	1	0.025	0.0246	98.5	0.0237	94.8	78.8 - 122		3.85	20
Isopropylbenzene	1	0.025	0.0241	96.6	0.0238	95.3	78.6 - 132		1.26	20
m&p-Xylenes	1	0.05	0.0481	96.2	0.0472	94.4	78.8 - 121		1.91	20
Methyl tert-butyl ether	1	0.025	0.0283	113	0.0280	112	71.2 - 126		0.96	20
Methylene Chloride	1	0.025	0.0261	105	0.0253	101	70.3 - 120		3.27	20
Naphthalene	1	0.025	0.0260	104	0.0261	104	68.4 - 128		0.38	20
n-Butylbenzene	1	0.025	0.0295	118	0.0290	116	76.2 - 126		1.89	20
n-Propylbenzene	1	0.025	0.0254	102	0.0248	99.1	78.2 - 122		2.51	20
o-Xylene	1	0.025	0.0241	96.6	0.0233	93.4	77.6 - 122		3.38	20
p-Isopropyltoluene	1	0.025	0.0235	94	0.0231	92.2	74 - 131		1.95	20
sec-Butylbenzene	1	0.025	0.0244	97.6	0.0240	96.2	74.4 - 127		1.5	20



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
Styrene	1	0.025	0.0245	98.1	0.0235	94.2	80.4 - 126		4.15	20
Tetrachloroethene	1	0.025	0.0219	87.6	0.0217	86.7	72.6 - 126		1.08	20
Toluene	1	0.025	0.0271	109	0.0266	106	79.7 - 116		1.94	20
trans-1,2-Dichloroethene	1	0.025	0.0268	107	0.0257	103	72.6 - 121		4.34	20
Trichloroethene	1	0.025	0.0243	97.1	0.0242	96.6	77.7 - 118		0.5	20
Vinyl chloride	1	0.025	0.0281	112	0.0277	111	65.9 - 128		1.43	20
Xylenes, Total	1	0.075	0.0723	96.3	0.0705	94.1	78.7 - 121		2.4	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0233	93.4	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0264	106	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0241	96.3	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0248	99.2	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0265	106	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0234	93.8	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0227	91	75 - 123	
1,2-Dibromoethane	1	0.025	0.0224	89.4	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0237	94.9	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0251	101	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0240	96.2	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1906	152	55 - 149	J4
2-Hexanone	1	0.125	0.1466	117	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1203	96.3	70.5 - 133	
Acetone	1	0.125	0.2290	183	35.6 - 163	J4
Benzene	1	0.025	0.0259	104	74.8 - 121	
Bromodichloromethane	1	0.025	0.0229	91.5	75.1 - 116	
Bromoform	1	0.025	0.0208	83.1	67.5 - 130	
Bromomethane	1	0.025	0.0398	159	49.9 - 162	
Carbon disulfide	1	0.025	0.0238	95.3	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0242	96.9	70.2 - 123	
Chlorobenzene	1	0.025	0.0237	94.7	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0220	87.9	74 - 121	
Chloroethane	1	0.025	0.0267	107	61.7 - 135	
Chloroform	1	0.025	0.0256	102	76 - 121	
Chloromethane	1	0.025	0.0213	85.1	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0244	97.7	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0240	95.9	78.2 - 120	
Ethylbenzene	1	0.025	0.0238	95.1	78.8 - 122	
Isopropylbenzene	1	0.025	0.0236	94.6	78.6 - 132	
m&p-Xylenes	1	0.05	0.0471	94.2	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0260	104	71.2 - 126	
Methylene Chloride	1	0.025	0.0260	104	70.3 - 120	
Naphthalene	1	0.025	0.0252	101	68.4 - 128	
n-Butylbenzene	1	0.025	0.0266	106	76.2 - 126	
n-Propylbenzene	1	0.025	0.0242	96.8	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0238	95.1	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0241	96.3	74 - 131	
sec-Butylbenzene	1	0.025	0.0244	97.6	74.4 - 127	
Styrene	1	0.025	0.0233	93.3	80.4 - 126	
Tetrachloroethene	1	0.025	0.0236	94.3	72.6 - 126	
Toluene	1	0.025	0.0234	93.5	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0243	97.3	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0227	90.8	74.3 - 123	
Trichloroethene	1	0.025	0.0244	97.6	77.7 - 118	
Vinyl chloride	1	0.025	0.0227	91	65.9 - 128	
Xylenes, Total	1	0.075	0.0709	94.5	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0231	92.6	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0254	102	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0229	91.5	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0241	96.4	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0261	104	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0227	90.9	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0222	88.9	75 - 123	
1,2-Dibromoethane	1	0.025	0.0216	86.5	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0221	88.3	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0249	99.6	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0235	94	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1716	137	55 - 149	
2-Hexanone	1	0.125	0.1447	116	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1119	89.5	70.5 - 133	
Acetone	1	0.125	0.2213	177	35.6 - 163	J4
Benzene	1	0.025	0.0251	100	74.8 - 121	
Bromodichloromethane	1	0.025	0.0221	88.4	75.1 - 116	
Bromoform	1	0.025	0.0207	83	67.5 - 130	
Bromomethane	1	0.025	0.0387	155	49.9 - 162	
Carbon disulfide	1	0.025	0.0223	89	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0237	94.8	70.2 - 123	
Chlorobenzene	1	0.025	0.0233	93.1	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0218	87.2	74 - 121	
Chloroethane	1	0.025	0.0255	102	61.7 - 135	
Chloroform	1	0.025	0.0251	100	76 - 121	
Chloromethane	1	0.025	0.0201	80.4	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0235	94	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0234	93.7	78.2 - 120	
Ethylbenzene	1	0.025	0.0233	93.4	78.8 - 122	
Isopropylbenzene	1	0.025	0.0237	94.8	78.6 - 132	
m&p-Xylenes	1	0.05	0.0465	93.1	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0240	95.8	71.2 - 126	
Methylene Chloride	1	0.025	0.0238	95.3	70.3 - 120	
Naphthalene	1	0.025	0.0231	92.4	68.4 - 128	
n-Butylbenzene	1	0.025	0.0253	101	76.2 - 126	
n-Propylbenzene	1	0.025	0.0239	95.6	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0237	94.8	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0236	94.3	74 - 131	
sec-Butylbenzene	1	0.025	0.0243	97.3	74.4 - 127	
Styrene	1	0.025	0.0224	89.7	80.4 - 126	
Tetrachloroethene	1	0.025	0.0234	93.7	72.6 - 126	
Toluene	1	0.025	0.0228	91.3	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0237	94.9	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0206	82.5	74.3 - 123	
Trichloroethene	1	0.025	0.0238	95.4	77.7 - 118	
Vinyl chloride	1	0.025	0.0218	87.2	65.9 - 128	
Xylenes, Total	1	0.075	0.0702	93.6	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec	Qual	RPD
1,1,1,2-Tetrachloroethane	1	0.025	0.0233	93.4	0.0231	92.6	74.2 - 124		0.84	20
1,1,1-Trichloroethane	1	0.025	0.0264	106	0.0254	102	73.2 - 123		3.89	20
1,1,2,2-Tetrachloroethane	1	0.025	0.0241	96.3	0.0229	91.5	70.7 - 122		5.07	20
1,1,2-Trichloroethane	1	0.025	0.0248	99.2	0.0241	96.4	77.7 - 118		2.9	20
1,1-Dichloroethane	1	0.025	0.0265	106	0.0261	104	70.7 - 126		1.57	20
1,1-Dichloroethene	1	0.025	0.0234	93.8	0.0227	90.9	67.8 - 129		3.17	20
1,2,4-Trimethylbenzene	1	0.025	0.0227	91	0.0222	88.9	75 - 123		2.29	20
1,2-Dibromoethane	1	0.025	0.0224	89.4	0.0216	86.5	76.6 - 121		3.34	20
1,2-Dichloroethane	1	0.025	0.0237	94.9	0.0221	88.3	68.8 - 124		7.22	20
1,2-Dichloropropane	1	0.025	0.0251	101	0.0249	99.6	76.5 - 119		0.98	20
1,3,5-Trimethylbenzene	1	0.025	0.0240	96.2	0.0235	94	75.6 - 124		2.31	20
2-Butanone (MEK)	1	0.125	0.1906	152	0.1716	137	55 - 149	J4	10.5	20
2-Hexanone	1	0.125	0.1466	117	0.1447	116	65.6 - 144		1.34	20
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1203	96.3	0.1119	89.5	70.5 - 133		7.25	20
Acetone	1	0.125	0.2290	183	0.2213	177	35.6 - 163	J4	3.39	23.9
Benzene	1	0.025	0.0259	104	0.0251	100	74.8 - 121		3.14	20
Bromodichloromethane	1	0.025	0.0229	91.5	0.0221	88.4	75.1 - 116		3.39	20
Bromoform	1	0.025	0.0208	83.1	0.0207	83	67.5 - 130		0.11	20
Bromomethane	1	0.025	0.0398	159	0.0387	155	49.9 - 162		2.89	20
Carbon disulfide	1	0.025	0.0238	95.3	0.0223	89	64.6 - 140		6.87	20
Carbon tetrachloride	1	0.025	0.0242	96.9	0.0237	94.8	70.2 - 123		2.17	20
Chlorobenzene	1	0.025	0.0237	94.7	0.0233	93.1	78.1 - 119		1.61	20
Chlorodibromomethane	1	0.025	0.0220	87.9	0.0218	87.2	74 - 121		0.8	20
Chloroethane	1	0.025	0.0267	107	0.0255	102	61.7 - 135		4.57	20
Chloroform	1	0.025	0.0256	102	0.0251	100	76 - 121		1.97	20
Chloromethane	1	0.025	0.0213	85.1	0.0201	80.4	61.5 - 129		5.71	20
cis-1,2-Dichloroethene	1	0.025	0.0244	97.7	0.0235	94	76 - 119		3.87	20
cis-1,3-Dichloropropene	1	0.025	0.0240	95.9	0.0234	93.7	78.2 - 120		2.3	20
Ethylbenzene	1	0.025	0.0238	95.1	0.0233	93.4	78.8 - 122		1.85	20
Isopropylbenzene	1	0.025	0.0236	94.6	0.0237	94.8	78.6 - 132		0.22	20
m&p-Xylenes	1	0.05	0.0471	94.2	0.0465	93.1	78.8 - 121		1.16	20
Methyl tert-butyl ether	1	0.025	0.0260	104	0.0240	95.8	71.2 - 126		8.02	20
Methylene Chloride	1	0.025	0.0260	104	0.0238	95.3	70.3 - 120		8.85	20
Naphthalene	1	0.025	0.0252	101	0.0231	92.4	68.4 - 128		8.74	20
n-Butylbenzene	1	0.025	0.0266	106	0.0253	101	76.2 - 126		4.82	20
n-Propylbenzene	1	0.025	0.0242	96.8	0.0239	95.6	78.2 - 122		1.2	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
o-Xylene	1	0.025	0.0238	95.1	0.0237	94.8	77.6 - 122		0.37	20
p-Isopropyltoluene	1	0.025	0.0241	96.3	0.0236	94.3	74 - 131		2.01	20
sec-Butylbenzene	1	0.025	0.0244	97.6	0.0243	97.3	74.4 - 127		0.37	20
Styrene	1	0.025	0.0233	93.3	0.0224	89.7	80.4 - 126		3.99	20
Tetrachloroethene	1	0.025	0.0236	94.3	0.0234	93.7	72.6 - 126		0.57	20
Toluene	1	0.025	0.0234	93.5	0.0228	91.3	79.7 - 116		2.45	20
trans-1,2-Dichloroethene	1	0.025	0.0243	97.3	0.0237	94.9	72.6 - 121		2.44	20
trans-1,3-Dichloropropene	1	0.025	0.0227	90.8	0.0206	82.5	74.3 - 123		9.58	20
Trichloroethene	1	0.025	0.0244	97.6	0.0238	95.4	77.7 - 118		2.36	20
Vinyl chloride	1	0.025	0.0227	91	0.0218	87.2	65.9 - 128		4.19	20
Xylenes, Total	1	0.075	0.0709	94.5	0.0702	93.6	78.7 - 121		0.9	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Matrix Spike / Matrix Spike Duplicate

L733743-01

Analyte	Dil	Spike		Control				% Rec Qual	Control RPD	RPD	Control Limits	RPD
		Value	Sample	MS	% Rec	MSD	% Rec					
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0277	111	0.0266	107	64 - 128	3.79		20	
1,1,1-Trichloroethane	1	0.025	0.0	0.0325	130	0.0312	125	58.7 - 134	3.82		20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0283	113	0.0284	113	56 - 132	0.21		22.2	
1,1,2-Trichloroethane	1	0.025	0.0	0.0252	101	0.0247	98.7	66.3 - 125	1.97		20	
1,1-Dichloroethane	1	0.025	0.0	0.0291	116	0.0279	112	58.5 - 132	4.24		20	
1,1-Dichloroethene	1	0.025	0.0	0.0304	122	0.0281	112	51.1 - 140	7.94		20.2	
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0273	109	0.0269	107	57.4 - 137	1.74		20	
1,2-Dibromoethane	1	0.025	0.0	0.0250	99.9	0.0244	97.5	67.1 - 125	2.41		20	
1,2-Dichloroethane	1	0.025	0.0	0.0277	111	0.0273	109	60 - 126	1.16		20	
1,2-Dichloropropane	1	0.025	0.0	0.0275	110	0.0269	108	64.2 - 123	2.39		20	
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0274	109	0.0268	107	63.6 - 132	1.86		20.5	
2-Butanone (MEK)	1	0.125	0.0	0.1346	108	0.1352	108	22.4 - 138	0.45		27	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1498	120	0.1506	120	60.8 - 140	0.5		25.1	
Acetone	1	0.125	0.0017	0.1242	98	0.1206	95.1	10 - 130	2.91		27.9	
Benzene	1	0.025	0.0	0.0258	103	0.0250	100	54.3 - 133	3		20	
Bromodichloromethane	1	0.025	0.0	0.0295	118	0.0291	116	63.9 - 121	1.36		20	
Bromoform	1	0.025	0.0	0.0264	106	0.0262	105	59.5 - 134	0.9		20.5	
Bromomethane	1	0.025	0.0	0.0307	123	0.0286	115	41.7 - 155	6.85		21.9	
Carbon tetrachloride	1	0.025	0.0	0.0314	126	0.0301	120	55.7 - 134	4.37		20	
Chlorobenzene	1	0.025	0.0	0.0261	104	0.0251	100	67 - 125	3.95		20	
Chlorodibromomethane	1	0.025	0.0	0.0248	99.1	0.0247	98.6	64.3 - 125	0.5		20.8	
Chloroethane	1	0.025	0.0	0.0278	111	0.0263	105	51.5 - 136	5.38		40	
Chloroform	1	0.025	0.0	0.0302	121	0.0291	117	63 - 129	3.44		20	
Chloromethane	1	0.025	0.0	0.0254	102	0.0239	95.7	42.4 - 135	5.93		20	
cis-1,2-Dichloroethene	1	0.025	0.0	0.0286	114	0.0278	111	59.2 - 129	2.85		20	
cis-1,3-Dichloropropene	1	0.025	0.0	0.0269	108	0.0261	105	66.4 - 125	2.87		20	
Ethylbenzene	1	0.025	0.0	0.0263	105	0.0251	100	61.4 - 133	4.62		20	
Isopropylbenzene	1	0.025	0.0	0.0276	110	0.0266	106	66.8 - 141	3.53		20	
m&p-Xylenes	1	0.05	0.0	0.0522	104	0.0498	99.6	61.7 - 133	4.69		20	
Methyl tert-butyl ether	1	0.025	0.0	0.0295	118	0.0304	122	57.7 - 134	2.97		20	
Methylene Chloride	1	0.025	0.0	0.0261	105	0.0255	102	58.1 - 122	2.39		20	
Naphthalene	1	0.025	0.0	0.0257	103	0.0275	110	58 - 135	6.75		25.5	
n-Butylbenzene	1	0.025	0.0	0.0292	117	0.0290	116	62.7 - 140	0.45		20.3	
n-Propylbenzene	1	0.025	0.0	0.0270	108	0.0262	105	65.9 - 131	3.03		20	
o-Xylene	1	0.025	0.0	0.0261	105	0.0253	101	63.3 - 130	3.12		20	
p-Isopropyltoluene	1	0.025	0.0	0.0281	112	0.0276	110	63.2 - 139	1.86		20.4	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Matrix Spike / Matrix Spike Duplicate

L733743-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
sec-Butylbenzene	1	0.025	0.0	0.0278	111	0.0271	108	62.2 - 136		2.63	20.3	
Styrene	1	0.025	0.0	0.0271	108	0.0260	104	66.8 - 133		3.96	20	
Tetrachloroethene	1	0.025	0.0	0.0254	102	0.0236	94.5	53 - 139		7.22	20	
Toluene	1	0.025	0.0	0.0258	103	0.0248	99.3	61.4 - 130		3.94	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0291	117	0.0271	108	56.5 - 129		7.44	20	
trans-1,3-Dichloropropene	1	0.025	0.0	0.0294	118	0.0278	111	64.1 - 128		5.55	20	
Trichloroethene	1	0.025	0.0	0.0256	102	0.0247	98.9	44.1 - 149		3.41	20	
Vinyl chloride	1	0.025	0.0	0.0300	120	0.0276	110	47.8 - 137		8.47	20	
Xylenes, Total	1	0.075	0.0	0.0784	104	0.0752	100	63.3 - 131		4.16	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Matrix Spike / Matrix Spike Duplicate

L733630-02

Analyte	Dil	Spike		Control				% Rec Qual	Control RPD	RPD	Control Limits	RPD
		Value	Sample	MS	% Rec	MSD	% Rec					
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0255	102	0.0260	104	64 - 128	1.89	20		
1,1,1-Trichloroethane	1	0.025	0.0	0.0239	95.4	0.0255	102	58.7 - 134	6.74	20		
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0280	112	0.0272	109	56 - 132	3.16	22.2		
1,1,2-Trichloroethane	1	0.025	0.0	0.0265	106	0.0269	108	66.3 - 125	1.32	20		
1,1-Dichloroethane	1	0.025	0.0	0.0259	104	0.0262	105	58.5 - 132	1.4	20		
1,1-Dichloroethene	1	0.025	0.0	0.0281	112	0.0278	111	51.1 - 140	1.04	20.2		
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0245	97.8	0.0255	102	57.4 - 137	4.22	20		
1,2-Dibromoethane	1	0.025	0.0	0.0261	104	0.0268	107	67.1 - 125	2.44	20		
1,2-Dichloroethane	1	0.025	0.0	0.0276	110	0.0278	111	60 - 126	0.72	20		
1,2-Dichloropropane	1	0.025	0.0	0.0266	107	0.0266	106	64.2 - 123	0.14	20		
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0244	97.7	0.0254	102	63.6 - 132	3.9	20.5		
2-Butanone (MEK)	1	0.125	0.0	0.1458	117	0.1376	110	22.4 - 138	5.76	27		
2-Hexanone	1	0.125	0.0	0.1408	113	0.1370	110	43.3 - 137	2.79	25.5		
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1434	115	0.1375	110	60.8 - 140	4.25	25.1		
Acetone	1	0.125	0.0016	0.1078	84.9	0.0946	74.4	10 - 130	13	27.9		
Benzene	1	0.025	0.0	0.0243	97.2	0.0251	100	54.3 - 133	3.27	20		
Bromodichloromethane	1	0.025	0.0	0.0283	113	0.0283	113	63.9 - 121	0.19	20		
Bromoform	1	0.025	0.0	0.0262	105	0.0261	104	59.5 - 134	0.44	20.5		
Bromomethane	1	0.025	0.0	0.0245	97.9	0.0232	92.7	41.7 - 155	5.46	21.9		
Carbon disulfide	1	0.025	0.0	0.0238	95.2	0.0241	96.4	43.3 - 149	1.26	20.3		
Carbon tetrachloride	1	0.025	0.0	0.0251	100	0.0258	103	55.7 - 134	2.55	20		
Chlorobenzene	1	0.025	0.0	0.0252	101	0.0263	105	67 - 125	4.48	20		
Chlorodibromomethane	1	0.025	0.0	0.0252	101	0.0256	103	64.3 - 125	1.63	20.8		
Chloroethane	1	0.025	0.0	0.0230	92	0.0217	86.6	51.5 - 136	6.02	40		
Chloroform	1	0.025	0.0	0.0278	111	0.0281	112	63 - 129	0.98	20		
Chloromethane	1	0.025	0.0	0.0213	85.2	0.0210	83.9	42.4 - 135	1.5	20		
cis-1,2-Dichloroethene	1	0.025	0.0047	0.0304	103	0.0307	104	59.2 - 129	1.17	20		
cis-1,3-Dichloropropene	1	0.025	0.0	0.0276	110	0.0271	108	66.4 - 125	1.72	20		
Ethylbenzene	1	0.025	0.0	0.0244	97.6	0.0257	103	61.4 - 133	5.29	20		
Isopropylbenzene	1	0.025	0.0	0.0246	98.5	0.0258	103	66.8 - 141	4.58	20		
m&p-Xylenes	1	0.05	0.0	0.0483	96.7	0.0507	101	61.7 - 133	4.88	20		
Methyl tert-butyl ether	1	0.025	0.0	0.0273	109	0.0271	108	57.7 - 134	0.62	20		
Methylene Chloride	1	0.025	0.0	0.0231	92.2	0.0230	91.9	58.1 - 122	0.39	20		
Naphthalene	1	0.025	0.0	0.0276	110	0.0287	115	58 - 135	3.93	25.5		
n-Butylbenzene	1	0.025	0.0	0.0276	110	0.0291	117	62.7 - 140	5.53	20.3		
n-Propylbenzene	1	0.025	0.0	0.0243	97.3	0.0255	102	65.9 - 131	4.83	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Matrix Spike / Matrix Spike Duplicate

L733630-02

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
o-Xylene	1	0.025	0.0	0.0239	95.4	0.0245	97.9	63.3 - 130		2.56	20	
p-Isopropyltoluene	1	0.025	0.0	0.0249	99.8	0.0261	104	63.2 - 139		4.49	20.4	
sec-Butylbenzene	1	0.025	0.0	0.0246	98.2	0.0256	102	62.2 - 136		4.21	20.3	
Styrene	1	0.025	0.0	0.0257	103	0.0268	107	66.8 - 133		4.05	20	
Tetrachloroethene	1	0.025	0.5987	0.5155	0	0.5157	0	53 - 139	V	0.05	20	
Toluene	1	0.025	0.0	0.0243	97.3	0.0248	99.3	61.4 - 130		2.08	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0253	101	0.0254	102	56.5 - 129		0.51	20	
trans-1,3-Dichloropropene	1	0.025	0.0	0.0320	128	0.0311	124	64.1 - 128		2.9	20	
Trichloroethene	1	0.025	0.0032	0.0266	93.9	0.0269	94.9	44.1 - 149		0.98	20	
Vinyl chloride	1	0.025	0.0	0.0257	103	0.0250	99.8	47.8 - 137		2.79	20	
Xylenes, Total	1	0.075	0.0	0.0722	96.3	0.0752	100	63.3 - 131		4.12	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754909
Analysis Date:	11/21/2014 11:52:00 AM	Analyst:	644
Instrument ID:	VOCMS20		
Sample Numbers:	L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44		

Matrix Spike / Matrix Spike Duplicate

L733743-25

Analyte	Dil	Spike		Control				% Rec Qual	RPD	Control Limits	RPD
		Value	Sample	MS	% Rec	MSD	% Rec				
1,1,1,2-Tetrachloroethane	1	0.025	<0.0004	0.0236	94.5	0.0278	111	64 - 128	16.1	20	
1,1,1-Trichloroethane	1	0.025	<0.0003	0.0222	88.6	0.0234	93.6	58.7 - 134	5.48	20	
1,1,2,2-Tetrachloroethane	1	0.025	<0.0001	0.0281	113	0.0321	128	56 - 132	13.1	22.2	
1,1,2-Trichloroethane	1	0.025	<0.0004	0.0246	98.4	0.0274	110	66.3 - 125	11	20	
1,1-Dichloroethane	1	0.025	<0.0003	0.0241	96.2	0.0249	99.6	58.5 - 132	3.45	20	
1,1-Dichloroethene	1	0.025	<0.0004	0.0209	83.7	0.0222	88.8	51.1 - 140	5.94	20.2	
1,2,4-Trimethylbenzene	1	0.025	<0.0004	0.0245	97.9	0.0271	109	57.4 - 137	10.3	20	
1,2-Dibromoethane	1	0.025	<0.0004	0.0250	100	0.0288	115	67.1 - 125	14.3	20	
1,2-Dichloroethane	1	0.025	<0.0004	0.0215	86.2	0.0223	89.1	60 - 126	3.32	20	
1,2-Dichloropropane	1	0.025	<0.0003	0.0260	104	0.0279	112	64.2 - 123	7.03	20	
1,3,5-Trimethylbenzene	1	0.025	<0.0004	0.0244	97.7	0.0272	109	63.6 - 132	10.8	20.5	
2-Butanone (MEK)	1	0.125	<0.0039	0.1449	116	0.1542	123	22.4 - 138	6.2	27	
2-Hexanone	1	0.125	<0.0038	0.1544	123	0.1817	145	43.3 - 137	J5	16.3	25.5
4-Methyl-2-pentanone (MIBK)	1	0.125	<0.0021	0.1642	131	0.1789	143	60.8 - 140	J5	8.58	25.1
Acetone	1	0.125	<0.01	0.1122	87.5	0.1169	91.3	10 - 130	4.1	27.9	
Benzene	1	0.025	<0.0003	0.0232	92.7	0.0243	97.2	54.3 - 133	4.69	20	
Bromodichloromethane	1	0.025	<0.0004	0.0233	93.2	0.0246	98.2	63.9 - 121	5.24	20	
Bromoform	1	0.025	<0.0005	0.0281	112	0.0330	132	59.5 - 134	15.9	20.5	
Bromomethane	1	0.025	<0.0009	0.0360	144	0.0383	153	41.7 - 155	6.31	21.9	
Carbon disulfide	1	0.025	<0.0003	0.0194	77.7	0.0202	80.9	43.3 - 149	4.08	20.3	
Carbon tetrachloride	1	0.025	<0.0004	0.0227	90.9	0.0248	99.4	55.7 - 134	8.91	20	
Chlorobenzene	1	0.025	<0.0003	0.0237	94.6	0.0273	109	67 - 125	14.2	20	
Chlorodibromomethane	1	0.025	<0.0003	0.0245	97.9	0.0284	114	64.3 - 125	15	20.8	
Chloroethane	1	0.025	<0.0005	0.0219	87.6	0.0215	86.2	51.5 - 136	1.68	40	
Chloroform	1	0.025	<0.0003	0.0227	90.8	0.0234	93.7	63 - 129	3.17	20	
Chloromethane	1	0.025	<0.0003	0.0233	93.3	0.0239	95.7	42.4 - 135	2.48	20	
cis-1,2-Dichloroethene	1	0.025	<0.0003	0.0235	93.9	0.0256	102	59.2 - 129	8.59	20	
cis-1,3-Dichloropropene	1	0.025	<0.0004	0.0263	105	0.0284	113	66.4 - 125	7.69	20	
Ethylbenzene	1	0.025	<0.0004	0.0245	98.1	0.0275	110	61.4 - 133	11.4	20	
Isopropylbenzene	1	0.025	<0.0003	0.0253	101	0.0284	114	66.8 - 141	11.8	20	
m&p-Xylenes	1	0.05	<0.0007	0.0499	99.8	0.0563	113	61.7 - 133	12	20	
Methyl tert-butyl ether	1	0.025	<0.0004	0.0245	98	0.0257	103	57.7 - 134	4.65	20	
Methylene Chloride	1	0.025	<0.001	0.0211	84.6	0.0217	86.9	58.1 - 122	2.68	20	
Naphthalene	1	0.025	<0.001	0.0294	118	0.0318	127	58 - 135	7.82	25.5	
n-Butylbenzene	1	0.025	<0.0004	0.0255	102	0.0274	110	62.7 - 140	7.44	20.3	
n-Propylbenzene	1	0.025	<0.0003	0.0246	98.2	0.0278	111	65.9 - 131	12.2	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754909
Analysis Date:	11/21/2014 11:52:00 AM	Analyst:	644
Instrument ID:	VOCMS20		
Sample Numbers:	L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44		

Matrix Spike / Matrix Spike Duplicate

L733743-25

Analyte	Dil	Spike		MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
		Value	Sample									
o-Xylene	1	0.025	<0.0003	0.0239	95.7	0.0272	109	63.3 - 130		12.6	20	
p-Isopropyltoluene	1	0.025	<0.0004	0.0274	110	0.0308	123	63.2 - 139		11.6	20.4	
sec-Butylbenzene	1	0.025	<0.0004	0.0264	106	0.0301	120	62.2 - 136		13.1	20.3	
Styrene	1	0.025	<0.0003	0.0242	96.8	0.0263	105	66.8 - 133		8.14	20	
Tetrachloroethene	1	0.025	<0.0004	0.0265	106	0.0297	119	53 - 139		11.3	20	
Toluene	1	0.025	<0.0008	0.0245	98	0.0263	105	61.4 - 130		6.92	20	
trans-1,2-Dichloroethene	1	0.025	<0.0004	0.0242	96.9	0.0248	99.1	56.5 - 129		2.27	20	
trans-1,3-Dichloropropene	1	0.025	<0.0004	0.0280	112	0.0302	121	64.1 - 128		7.42	20	
Trichloroethene	1	0.025	<0.0004	0.0230	92.1	0.0247	98.9	44.1 - 149		7.12	20	
Vinyl chloride	1	0.025	<0.0003	0.0230	92	0.0233	93.3	47.8 - 137		1.45	20	
Xylenes, Total	1	0.075	<0.0011	0.0738	98.4	0.0834	111	63.3 - 131		12.2	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754914
Analysis Date:	11/17/2014 2:20:00 AM	Analyst:	644
Instrument ID:	VOCMS14		
Sample Numbers:	L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65		

Matrix Spike / Matrix Spike Duplicate

L733743-45

Analyte	Dil	Spike		Control				% Rec Qual	RPD	Control Limits	RPD	Qual
		Value	Sample	MS	% Rec	MSD	% Rec					
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0246	98.4	0.0270	108	64 - 128	9.12	20		
1,1,1-Trichloroethane	1	0.025	0.0	0.0276	111	0.0302	121	58.7 - 134	8.71	20		
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0288	115	0.0321	129	56 - 132	11	22.2		
1,1,2-Trichloroethane	1	0.025	0.0	0.0250	100	0.0287	115	66.3 - 125	13.8	20		
1,1-Dichloroethane	1	0.025	0.0	0.0265	106	0.0283	113	58.5 - 132	6.83	20		
1,1-Dichloroethene	1	0.025	0.0	0.0236	94.5	0.0264	106	51.1 - 140	11.1	20.2		
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0264	106	0.0307	123	57.4 - 137	15	20		
1,2-Dibromoethane	1	0.025	0.0	0.0287	115	0.0294	118	67.1 - 125	2.33	20		
1,2-Dichloroethane	1	0.025	0.0	0.0248	99.1	0.0264	106	60 - 126	6.32	20		
1,2-Dichloropropane	1	0.025	0.0	0.0272	109	0.0282	113	64.2 - 123	3.55	20		
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0261	105	0.0304	122	63.6 - 132	15.1	20.5		
2-Butanone (MEK)	1	0.125	0.0	0.1303	104	0.1532	123	22.4 - 138	16.2	27		
2-Hexanone	1	0.125	0.0	0.1426	114	0.1514	121	43.3 - 137	5.97	25.5		
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1545	124	0.1508	121	60.8 - 140	2.42	25.1		
Acetone	1	0.125	0.0099	0.1174	86	0.1212	89	10 - 130	3.22	27.9		
Benzene	1	0.025	0.0	0.0273	109	0.0292	117	54.3 - 133	6.74	20		
Bromodichloromethane	1	0.025	0.0	0.0227	90.8	0.0243	97.3	63.9 - 121	6.91	20		
Bromoform	1	0.025	0.0	0.0233	93.2	0.0246	98.6	59.5 - 134	5.67	20.5		
Bromomethane	1	0.025	0.0	0.0311	125	0.0372	149	41.7 - 155	17.7	21.9		
Carbon disulfide	1	0.025	0.0	0.0188	75.4	0.0205	82	43.3 - 149	8.36	20.3		
Carbon tetrachloride	1	0.025	0.0	0.0262	105	0.0306	122	55.7 - 134	15.5	20		
Chlorobenzene	1	0.025	0.0	0.0261	105	0.0293	117	67 - 125	11.5	20		
Chlorodibromomethane	1	0.025	0.0	0.0226	90.4	0.0248	99.1	64.3 - 125	9.23	20.8		
Chloroethane	1	0.025	0.0	0.0262	105	0.0327	131	51.5 - 136	21.9	40		
Chloroform	1	0.025	0.0	0.0278	111	0.0300	120	63 - 129	7.69	20		
Chloromethane	1	0.025	0.0	0.0265	106	0.0292	117	42.4 - 135	9.77	20		
cis-1,2-Dichloroethene	1	0.025	0.0	0.0281	112	0.0305	122	59.2 - 129	8.05	20		
cis-1,3-Dichloropropene	1	0.025	0.0	0.0250	100	0.0248	99.3	66.4 - 125	0.76	20		
Ethylbenzene	1	0.025	0.0	0.0259	103	0.0300	120	61.4 - 133	14.8	20		
Isopropylbenzene	1	0.025	0.0	0.0262	105	0.0300	120	66.8 - 141	13.5	20		
m&p-Xylenes	1	0.05	0.0	0.0512	102	0.0583	117	61.7 - 133	13	20		
Methyl tert-butyl ether	1	0.025	0.0	0.0283	113	0.0302	121	57.7 - 134	6.3	20		
Methylene Chloride	1	0.025	0.0	0.0267	107	0.0292	117	58.1 - 122	9.04	20		
Naphthalene	1	0.025	0.0003	0.0276	109	0.0283	112	58 - 135	2.65	25.5		
n-Butylbenzene	1	0.025	0.0	0.0268	107	0.0290	116	62.7 - 140	7.71	20.3		
n-Propylbenzene	1	0.025	0.0	0.0259	103	0.0298	119	65.9 - 131	14.1	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754914
Analysis Date:	11/17/2014 2:20:00 AM	Analyst:	644
Instrument ID:	VOCMS14		
Sample Numbers:	L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65		

Matrix Spike / Matrix Spike Duplicate

L733743-45

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
o-Xylene	1	0.025	0.0	0.0260	104	0.0301	120	63.3 - 130	14.6	20		
p-Isopropyltoluene	1	0.025	0.0	0.0275	110	0.0317	127	63.2 - 139	14.2	20.4		
sec-Butylbenzene	1	0.025	0.0	0.0265	106	0.0309	123	62.2 - 136	15.3	20.3		
Styrene	1	0.025	0.0	0.0263	105	0.0300	120	66.8 - 133	13	20		
Tetrachloroethene	1	0.025	0.0	0.0223	89.3	0.0270	108	53 - 139	18.8	20		
Toluene	1	0.025	0.0	0.0261	104	0.0272	109	61.4 - 130	4.45	20		
trans-1,2-Dichloroethene	1	0.025	0.0	0.0264	105	0.0284	114	56.5 - 129	7.52	20		
trans-1,3-Dichloropropene	1	0.025	0.0	0.0227	90.7	0.0239	95.8	64.1 - 128	5.4	20		
Trichloroethene	1	0.025	0.0	0.0250	99.9	0.0253	101	44.1 - 149	1.33	20		
Vinyl chloride	1	0.025	0.0	0.0275	110	0.0300	120	47.8 - 137	8.75	20		
Xylenes, Total	1	0.075	0.0	0.0772	103	0.0884	118	63.3 - 131	13.5	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754915
Analysis Date:	11/19/2014 3:01:00 PM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86		

Matrix Spike / Matrix Spike Duplicate

L733743-67

Analyte	Dil	Spike		Control				% Rec Qual	RPD	Control Limits	RPD
		Value	Sample	MS	% Rec	MSD	% Rec				
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0311	124	0.0282	113	64 - 128	9.56	20	
1,1,1-Trichloroethane	1	0.025	0.0	0.0303	121	0.0255	102	58.7 - 134	17.2	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0307	123	0.0286	114	56 - 132	6.93	22.2	
1,1,2-Trichloroethane	1	0.025	0.0	0.0294	118	0.0272	109	66.3 - 125	7.68	20	
1,1-Dichloroethane	1	0.025	0.0	0.0271	108	0.0229	91.7	58.5 - 132	16.6	20	
1,1-Dichloroethene	1	0.025	0.0	0.0277	111	0.0223	89.4	51.1 - 140	21.5	20.2	J3
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0292	117	0.0255	102	57.4 - 137	13.5	20	
1,2-Dibromoethane	1	0.025	0.0	0.0306	122	0.0286	114	67.1 - 125	6.79	20	
1,2-Dichloroethane	1	0.025	0.0	0.0275	110	0.0245	98	60 - 126	11.4	20	
1,2-Dichloropropane	1	0.025	0.0	0.0265	106	0.0235	94	64.2 - 123	12	20	
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0290	116	0.0261	104	63.6 - 132	10.6	20.5	
2-Butanone (MEK)	1	0.125	0.0	0.1343	107	0.1186	94.9	22.4 - 138	12.4	27	
2-Hexanone	1	0.125	0.0	0.1547	124	0.1469	118	43.3 - 137	5.2	25.5	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1498	120	0.1336	107	60.8 - 140	11.4	25.1	
Acetone	1	0.125	0.0027	0.1121	87.6	0.0941	73.1	10 - 130	17.5	27.9	
Benzene	1	0.025	0.0	0.0270	108	0.0231	92.6	54.3 - 133	15.5	20	
Bromodichloromethane	1	0.025	0.0	0.0276	110	0.0247	98.8	63.9 - 121	11	20	
Bromoform	1	0.025	0.0	0.0342	137	0.0316	126	59.5 - 134	J5	7.87	20.5
Bromomethane	1	0.025	0.0	0.0372	149	0.0328	131	41.7 - 155	12.7	21.9	
Carbon disulfide	1	0.025	0.0	0.0255	102	0.0205	81.9	43.3 - 149	22	20.3	J3
Carbon tetrachloride	1	0.025	0.0	0.0312	125	0.0263	105	55.7 - 134	17.3	20	
Chlorobenzene	1	0.025	0.0	0.0300	120	0.0263	105	67 - 125	13	20	
Chlorodibromomethane	1	0.025	0.0	0.0320	128	0.0296	118	64.3 - 125	J5	7.98	20.8
Chloroethane	1	0.025	0.0	0.0341	136	0.0305	122	51.5 - 136	11.1	40	
Chloroform	1	0.025	0.0	0.0286	115	0.0242	97	63 - 129	16.6	20	
Chloromethane	1	0.025	0.0	0.0219	87.5	0.0186	74.4	42.4 - 135	16.2	20	
cis-1,2-Dichloroethene	1	0.025	0.0	0.0281	112	0.0241	96.4	59.2 - 129	15.4	20	
cis-1,3-Dichloropropene	1	0.025	0.0	0.0280	112	0.0247	98.6	66.4 - 125	12.9	20	
Ethylbenzene	1	0.025	0.0	0.0298	119	0.0262	105	61.4 - 133	12.9	20	
Isopropylbenzene	1	0.025	0.0	0.0316	126	0.0273	109	66.8 - 141	14.4	20	
m&p-Xylenes	1	0.05	0.0	0.0583	117	0.0526	105	61.7 - 133	10.3	20	
Methyl tert-butyl ether	1	0.025	0.0	0.0276	110	0.0248	99	57.7 - 134	10.8	20	
Methylene Chloride	1	0.025	0.0	0.0273	109	0.0237	94.7	58.1 - 122	14.3	20	
Naphthalene	1	0.025	0.0	0.0271	109	0.0255	102	58 - 135	6.31	25.5	
n-Butylbenzene	1	0.025	0.0	0.0288	115	0.0245	98.1	62.7 - 140	16.1	20.3	
n-Propylbenzene	1	0.025	0.0	0.0304	121	0.0266	106	65.9 - 131	13.4	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754915
Analysis Date:	11/19/2014 3:01:00 PM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86		

Matrix Spike / Matrix Spike Duplicate

L733743-67

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
o-Xylene	1	0.025	0.0	0.0286	114	0.0257	103	63.3 - 130		10.6	20	
p-Isopropyltoluene	1	0.025	0.0	0.0332	133	0.0292	117	63.2 - 139		12.5	20.4	
sec-Butylbenzene	1	0.025	0.0	0.0326	130	0.0284	114	62.2 - 136		13.5	20.3	
Styrene	1	0.025	0.0	0.0296	118	0.0268	107	66.8 - 133		9.96	20	
Tetrachloroethene	1	0.025	0.0	0.0330	132	0.0293	117	53 - 139		11.9	20	
Toluene	1	0.025	0.0	0.0300	120	0.0258	103	61.4 - 130		15	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0273	109	0.0226	90.4	56.5 - 129		19	20	
trans-1,3-Dichloropropene	1	0.025	0.0	0.0296	119	0.0272	109	64.1 - 128		8.6	20	
Trichloroethene	1	0.025	0.0	0.0305	122	0.0259	104	44.1 - 149		16.3	20	
Vinyl chloride	1	0.025	0.0	0.0248	99.1	0.0199	79.7	47.8 - 137		21.8	20	J3
Xylenes, Total	1	0.075	0.0	0.0869	116	0.0783	104	63.3 - 131		10.4	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754916
Analysis Date:	11/22/2014 3:10:00 AM	Analyst:	644
Instrument ID:	VOCMS7		
Sample Numbers:	L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105		

Matrix Spike / Matrix Spike Duplicate

L733743-99

Analyte	Dil	Spike		Control				% Rec Qual	RPD	Control Limits	RPD	Control Limits	RPD
		Value	Sample	MS	% Rec	MSD	% Rec						
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0230	92.1	0.0207	82.8	64 - 128	10.6	20			
1,1,1-Trichloroethane	1	0.025	0.0	0.0199	79.8	0.0175	70	58.7 - 134	13	20			
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0230	92	0.0206	82.5	56 - 132	10.9	22.2			
1,1,2-Trichloroethane	1	0.025	0.0	0.0231	92.3	0.0204	81.5	66.3 - 125	12.4	20			
1,1-Dichloroethane	1	0.025	0.0	0.0196	78.4	0.0174	69.7	58.5 - 132	11.8	20			
1,1-Dichloroethene	1	0.025	0.0	0.0185	74.1	0.0164	65.5	51.1 - 140	12.3	20.2			
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0214	85.8	0.0190	76	57.4 - 137	12.1	20			
1,2-Dibromoethane	1	0.025	0.0	0.0237	94.7	0.0210	84	67.1 - 125	12	20			
1,2-Dichloroethane	1	0.025	0.0	0.0191	76.5	0.0170	68.2	60 - 126	11.5	20			
1,2-Dichloropropane	1	0.025	0.0	0.0217	86.9	0.0188	75	64.2 - 123	14.7	20			
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0215	86	0.0193	77.3	63.6 - 132	10.7	20.5			
2-Butanone (MEK)	1	0.125	0.0	0.1015	81.2	0.0958	76.7	22.4 - 138	5.77	27			
2-Hexanone	1	0.125	0.0	0.1141	91.3	0.1037	83	43.3 - 137	9.53	25.5			
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1121	89.7	0.0992	79.3	60.8 - 140	12.2	25.1			
Acetone	1	0.125	0.0016	0.0927	72.8	0.0840	65.9	10 - 130	9.84	27.9			
Benzene	1	0.025	0.0	0.0192	76.9	0.0169	67.8	54.3 - 133	12.7	20			
Bromodichloromethane	1	0.025	0.0	0.0212	84.9	0.0183	73	63.9 - 121	15	20			
Bromoform	1	0.025	0.0	0.0253	101	0.0224	89.5	59.5 - 134	12.2	20.5			
Bromomethane	1	0.025	0.0004	0.0205	80.7	0.0164	64	41.7 - 155	22.6	21.9			J3
Carbon disulfide	1	0.025	0.0003	0.0167	65.5	0.0148	58	43.3 - 149	11.8	20.3			
Carbon tetrachloride	1	0.025	0.0	0.0198	79.2	0.0198	79.2	55.7 - 134	0.05	20			
Chlorobenzene	1	0.025	0.0	0.0223	89.1	0.0196	78.2	67 - 125	13	20			
Chlorodibromomethane	1	0.025	0.0	0.0238	95.1	0.0206	82.3	64.3 - 125	14.4	20.8			
Chloroethane	1	0.025	0.0	0.0198	79.2	0.0173	69.2	51.5 - 136	13.5	40			
Chloroform	1	0.025	0.0	0.0200	80.2	0.0172	68.9	63 - 129	15.1	20			
Chloromethane	1	0.025	0.0	0.0180	72.1	0.0158	63.2	42.4 - 135	13.2	20			
cis-1,2-Dichloroethene	1	0.025	0.0	0.0205	81.9	0.0181	72.3	59.2 - 129	12.5	20			
cis-1,3-Dichloropropene	1	0.025	0.0	0.0214	85.7	0.0183	73.2	66.4 - 125	15.8	20			
Ethylbenzene	1	0.025	0.0	0.0216	86.3	0.0193	77.3	61.4 - 133	11.1	20			
Isopropylbenzene	1	0.025	0.0020	0.0239	87.7	0.0214	77.7	66.8 - 141	11.1	20			
m&p-Xylenes	1	0.05	0.0	0.0411	82.1	0.0367	73.5	61.7 - 133	11.1	20			
Methyl tert-butyl ether	1	0.025	0.0	0.0199	79.5	0.0177	70.6	57.7 - 134	11.8	20			
Methylene Chloride	1	0.025	0.0	0.0179	71.7	0.0160	64	58.1 - 122	11.2	20			
Naphthalene	1	0.025	0.0004	0.0219	86	0.0198	77.6	58 - 135	10	25.5			
n-Butylbenzene	1	0.025	0.0	0.0204	81.7	0.0184	73.5	62.7 - 140	10.6	20.3			
n-Propylbenzene	1	0.025	0.0	0.0214	85.6	0.0192	76.7	65.9 - 131	10.9	20			

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754916
Analysis Date:	11/22/2014 3:10:00 AM	Analyst:	644
Instrument ID:	VOCMS7		
Sample Numbers:	L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105		

Matrix Spike / Matrix Spike Duplicate

L733743-99

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
o-Xylene	1	0.025	0.0	0.0210	84.1	0.0186	74.3	63.3 - 130	12.3	20		
p-Isopropyltoluene	1	0.025	0.0022	0.0226	81.5	0.0203	72.3	63.2 - 139	10.7	20.4		
sec-Butylbenzene	1	0.025	0.0007	0.0229	88.5	0.0205	79.1	62.2 - 136	10.9	20.3		
Styrene	1	0.025	0.0	0.0219	87.6	0.0194	77.5	66.8 - 133	12.2	20		
Tetrachloroethene	1	0.025	0.0	0.0229	91.6	0.0211	84.5	53 - 139	8.04	20		
Toluene	1	0.025	0.0	0.0201	80.3	0.0175	70.2	61.4 - 130	13.5	20		
trans-1,2-Dichloroethene	1	0.025	0.0	0.0199	79.7	0.0180	72.2	56.5 - 129	9.94	20		
trans-1,3-Dichloropropene	1	0.025	0.0	0.0238	95.1	0.0203	81.2	64.1 - 128	15.8	20		
Trichloroethene	1	0.025	0.0	0.0215	85.9	0.0187	75	44.1 - 149	13.6	20		
Vinyl chloride	1	0.025	0.0	0.0198	79.4	0.0174	69.7	47.8 - 137	13	20		
Xylenes, Total	1	0.075	0.0	0.0621	82.8	0.0553	73.8	63.3 - 131	11.5	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754917
Analysis Date:	11/19/2014 3:06:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125		

Matrix Spike / Matrix Spike Duplicate

L733743-115

Analyte	Dil	Spike		Control				% Rec Qual	RPD	Control		RPD
		Value	Sample	MS	% Rec	MSD	% Rec			Limits	Limits	
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0250	99.8	0.0342	137	64 - 128	J5	31.3	20	J3
1,1,1-Trichloroethane	1	0.025	0.0	0.0240	96	0.0290	116	58.7 - 134		19	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0268	107	0.0382	153	56 - 132	J5	34.9	22.2	J3
1,1,2-Trichloroethane	1	0.025	0.0	0.0285	114	0.0380	152	66.3 - 125	J5	28.4	20	J3
1,1-Dichloroethane	1	0.025	0.0	0.0250	99.8	0.0311	124	58.5 - 132		21.9	20	J3
1,1-Dichloroethene	1	0.025	0.0	0.0229	91.8	0.0266	106	51.1 - 140		14.8	20.2	
1,2,4-Trimethylbenzene	1	0.025	0.0006	0.0250	97.6	0.0332	130	57.4 - 137		28.2	20	J3
1,2-Dibromoethane	1	0.025	0.0	0.0260	104	0.0355	142	67.1 - 125	J5	31	20	J3
1,2-Dichloroethane	1	0.025	0.0	0.0203	81	0.0277	111	60 - 126		31.2	20	J3
1,2-Dichloropropane	1	0.025	0.0	0.0261	104	0.0351	140	64.2 - 123	J5	29.3	20	J3
1,3,5-Trimethylbenzene	1	0.025	0.0004	0.0255	101	0.0339	134	63.6 - 132	J5	28.2	20.5	J3
2-Butanone (MEK)	1	0.125	0.0011	0.1413	112	0.1848	147	22.4 - 138	J5	26.7	27	
2-Hexanone	1	0.125	0.0	0.1566	125	0.2186	175	43.3 - 137	J5	33	25.5	J3
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0005	0.1437	115	0.2035	162	60.8 - 140	J5	34.4	25.1	J3
Acetone	1	0.125	0.0	0.1335	107	0.1585	127	10 - 130		17.2	27.9	
Benzene	1	0.025	0.2640	0.2327	0	0.2368	0	54.3 - 133	V	1.75	20	
Bromodichloromethane	1	0.025	0.0	0.0242	96.9	0.0327	131	63.9 - 121	J5	29.8	20	J3
Bromoform	1	0.025	0.0	0.0257	103	0.0354	142	59.5 - 134	J5	31.5	20.5	J3
Bromomethane	1	0.025	0.0	0.0179	71.6	0.0263	105	41.7 - 155		38	21.9	J3
Carbon disulfide	1	0.025	0.0005	0.0205	80	0.0229	89.3	43.3 - 149		10.7	20.3	
Carbon tetrachloride	1	0.025	0.0	0.0230	92	0.0286	114	55.7 - 134		21.7	20	J3
Chlorobenzene	1	0.025	0.0	0.0244	97.6	0.0326	130	67 - 125	J5	28.7	20	J3
Chlorodibromomethane	1	0.025	0.0	0.0266	106	0.0360	144	64.3 - 125	J5	30	20.8	J3
Chloroethane	1	0.025	0.0	0.0122	48.8	0.0142	56.9	51.5 - 136	J6	15.3	40	
Chloroform	1	0.025	0.0	0.0250	100	0.0332	133	63 - 129	J5	28.1	20	J3
Chloromethane	1	0.025	0.0010	0.0229	87.4	0.0249	95.6	42.4 - 135		8.55	20	
cis-1,2-Dichloroethene	1	0.025	0.0	0.0242	96.9	0.0307	123	59.2 - 129		23.4	20	J3
cis-1,3-Dichloropropene	1	0.025	0.0003	0.0261	103	0.0350	139	66.4 - 125	J5	29.2	20	J3
Ethylbenzene	1	0.025	0.0200	0.0414	85.8	0.0483	113	61.4 - 133		15.4	20	
Isopropylbenzene	1	0.025	0.0275	0.0480	81.7	0.0552	110	66.8 - 141		14	20	
m&p-Xylenes	1	0.05	0.0027	0.0509	96.3	0.0659	126	61.7 - 133		25.7	20	J3
Methyl tert-butyl ether	1	0.025	0.0	0.0254	102	0.0332	133	57.7 - 134		26.5	20	J3
Methylene Chloride	1	0.025	0.0	0.0234	93.7	0.0285	114	58.1 - 122		19.5	20	
Naphthalene	1	0.025	0.0026	0.0350	129	0.0477	180	58 - 135	J5	30.8	25.5	J3
n-Butylbenzene	1	0.025	0.0013	0.0294	113	0.0378	146	62.7 - 140	J5	24.9	20.3	J3
n-Propylbenzene	1	0.025	0.0212	0.0430	87.4	0.0501	116	65.9 - 131		15.2	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754917
Analysis Date:	11/19/2014 3:06:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125		

Matrix Spike / Matrix Spike Duplicate

L733743-115

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
o-Xylene	1	0.025	0.0004	0.0273	108	0.0361	143	63.3 - 130	J5	28	20	J3
p-Isopropyltoluene	1	0.025	0.0	0.0246	98.4	0.0328	131	63.2 - 139		28.4	20.4	J3
sec-Butylbenzene	1	0.025	0.0033	0.0274	96.1	0.0359	130	62.2 - 136		26.8	20.3	J3
Styrene	1	0.025	0.0	0.0260	104	0.0350	140	66.8 - 133	J5	29.6	20	J3
Tetrachloroethene	1	0.025	0.0	0.0224	89.4	0.0297	119	53 - 139		28.2	20	J3
Toluene	1	0.025	0.0057	0.0274	86.9	0.0343	114	61.4 - 130		22.4	20	J3
trans-1,2-Dichloroethene	1	0.025	0.0	0.0236	94.5	0.0281	112	56.5 - 129		17.1	20	
trans-1,3-Dichloropropene	1	0.025	0.0	0.0272	109	0.0370	148	64.1 - 128	J5	30.4	20	J3
Trichloroethene	1	0.025	0.0	0.0235	94	0.0306	122	44.1 - 149		26.2	20	J3
Vinyl chloride	1	0.025	0.0	0.0206	82.5	0.0225	90.1	47.8 - 137		8.77	20	
Xylenes, Total	1	0.075	0.0031	0.0781	100	0.1020	132	63.3 - 131	J5	26.5	20	J3

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754918**
 Analysis Date: 11/20/2014 5:53:00 AM Analyst: 644
 Instrument ID: VOCMS2
 Sample Numbers: L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141

Matrix Spike / Matrix Spike Duplicate

L733743-126

Analyte	Dil	Spike		Control				% Rec Qual	Control RPD	RPD	Control Limits	RPD
		Value	Sample	MS	% Rec	MSD	% Rec					
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0214	85.6	0.0239	95.7	64 - 128	11.1	20		
1,1,1-Trichloroethane	1	0.025	0.0	0.0226	90.3	0.0253	101	58.7 - 134	11.2	20		
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0211	84.5	0.0242	96.9	56 - 132	13.6	22.2		
1,1,2-Trichloroethane	1	0.025	0.0	0.0226	90.5	0.0259	104	66.3 - 125	13.4	20		
1,1-Dichloroethane	1	0.025	0.0	0.0228	91.2	0.0254	102	58.5 - 132	10.7	20		
1,1-Dichloroethene	1	0.025	0.0	0.0241	96.3	0.0264	105	51.1 - 140	9.13	20.2		
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0213	85.3	0.0239	95.8	57.4 - 137	11.5	20		
1,2-Dibromoethane	1	0.025	0.0	0.0209	83.5	0.0234	93.7	67.1 - 125	11.5	20		
1,2-Dichloroethane	1	0.025	0.0	0.0217	86.9	0.0247	98.9	60 - 126	12.9	20		
1,2-Dichloropropane	1	0.025	0.0	0.0227	90.9	0.0252	101	64.2 - 123	10.2	20		
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0213	85.3	0.0238	95.2	63.6 - 132	11	20.5		
2-Butanone (MEK)	1	0.125	0.0	0.1270	102	0.1442	115	22.4 - 138	12.7	27		
2-Hexanone	1	0.125	0.0	0.0999	79.9	0.1160	92.8	43.3 - 137	14.9	25.5		
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1093	87.4	0.1246	99.7	60.8 - 140	13.1	25.1		
Acetone	1	0.125	0.0026	0.0834	64.6	0.0938	73	10 - 130	11.8	27.9		
Benzene	1	0.025	0.0003	0.0209	82.5	0.0234	92.4	54.3 - 133	11.1	20		
Bromodichloromethane	1	0.025	0.0	0.0234	93.5	0.0257	103	63.9 - 121	9.54	20		
Bromoform	1	0.025	0.0	0.0200	80.1	0.0225	89.9	59.5 - 134	11.6	20.5		
Bromomethane	1	0.025	0.0	0.0224	89.5	0.0240	96	41.7 - 155	7.06	21.9		
Carbon disulfide	1	0.025	0.0	0.0225	90.2	0.0247	98.8	43.3 - 149	9.14	20.3		
Carbon tetrachloride	1	0.025	0.0	0.0226	90.5	0.0251	100	55.7 - 134	10.3	20		
Chlorobenzene	1	0.025	0.0	0.0216	86.4	0.0241	96.4	67 - 125	10.9	20		
Chlorodibromomethane	1	0.025	0.0	0.0203	81.3	0.0230	91.9	64.3 - 125	12.2	20.8		
Chloroethane	1	0.025	0.0	0.0207	82.6	0.0222	88.6	51.5 - 136	6.99	40		
Chloroform	1	0.025	0.0	0.0233	93.4	0.0258	103	63 - 129	10.1	20		
Chloromethane	1	0.025	0.0	0.0198	79.1	0.0215	85.9	42.4 - 135	8.32	20		
cis-1,2-Dichloroethene	1	0.025	0.0	0.0214	85.8	0.0237	94.7	59.2 - 129	9.86	20		
cis-1,3-Dichloropropene	1	0.025	0.0	0.0232	92.9	0.0254	101	66.4 - 125	8.78	20		
Ethylbenzene	1	0.025	0.0	0.0215	86.2	0.0234	93.7	61.4 - 133	8.38	20		
Isopropylbenzene	1	0.025	0.0160	0.0363	81.4	0.0404	97.5	66.8 - 141	10.5	20		
m&p-Xylenes	1	0.05	0.0	0.0427	85.4	0.0476	95.2	61.7 - 133	10.8	20		
Methyl tert-butyl ether	1	0.025	0.0	0.0231	92.4	0.0262	105	57.7 - 134	12.5	20		
Methylene Chloride	1	0.025	0.0	0.0198	79.2	0.0219	87.6	58.1 - 122	10.1	20		
Naphthalene	1	0.025	0.0	0.0227	90.8	0.0264	106	58 - 135	15.2	25.5		
n-Butylbenzene	1	0.025	0.0	0.0247	98.9	0.0277	111	62.7 - 140	11.4	20.3		
n-Propylbenzene	1	0.025	0.0032	0.0244	84.8	0.0270	95.4	65.9 - 131	10.3	20		



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754918
Analysis Date:	11/20/2014 5:53:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141		

Matrix Spike / Matrix Spike Duplicate

L733743-126

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
o-Xylene	1	0.025	0.0	0.0206	82.4	0.0231	92.4	63.3 - 130	11.4	20		
p-Isopropyltoluene	1	0.025	0.0	0.0216	86.6	0.0244	97.6	63.2 - 139	11.9	20.4		
sec-Butylbenzene	1	0.025	0.0031	0.0245	85.9	0.0275	97.6	62.2 - 136	11.3	20.3		
Styrene	1	0.025	0.0	0.0215	85.9	0.0242	97	66.8 - 133	12.1	20		
Tetrachloroethene	1	0.025	0.0	0.0208	83.3	0.0232	92.7	53 - 139	10.6	20		
Toluene	1	0.025	0.0	0.0213	85.1	0.0232	92.7	61.4 - 130	8.5	20		
trans-1,2-Dichloroethene	1	0.025	0.0	0.0222	88.7	0.0241	96.4	56.5 - 129	8.33	20		
trans-1,3-Dichloropropene	1	0.025	0.0	0.0258	103	0.0277	111	64.1 - 128	7.23	20		
Trichloroethene	1	0.025	0.0	0.0203	81.4	0.0225	89.8	44.1 - 149	9.91	20		
Vinyl chloride	1	0.025	0.0	0.0229	91.4	0.0244	97.6	47.8 - 137	6.49	20		
Xylenes, Total	1	0.075	0.0	0.0633	84.4	0.0707	94.3	63.3 - 131	11	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754919
Analysis Date:	11/21/2014 10:42:00 PM	Analyst:	644
Instrument ID:	VOCMS13		
Sample Numbers:	L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162		

Matrix Spike / Matrix Spike Duplicate

L733743-156

Analyte	Dil	Spike		Control				% Rec Qual	RPD	Control Limits	RPD
		Value	Sample	MS	% Rec	MSD	% Rec				
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0233	93.1	0.0237	95	64 - 128	1.96	20	
1,1,1-Trichloroethane	1	0.025	0.0	0.0218	87	0.0233	93.3	58.7 - 134	6.9	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0256	102	0.0242	96.8	56 - 132	5.49	22.2	
1,1,2-Trichloroethane	1	0.025	0.0	0.0233	93.1	0.0230	92	66.3 - 125	1.2	20	
1,1-Dichloroethane	1	0.025	0.0	0.0226	90.4	0.0226	90.5	58.5 - 132	0.18	20	
1,1-Dichloroethene	1	0.025	0.0	0.0204	81.8	0.0215	85.8	51.1 - 140	4.83	20.2	
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0222	88.7	0.0236	94.5	57.4 - 137	6.41	20	
1,2-Dibromoethane	1	0.025	0.0	0.0255	102	0.0242	96.6	67.1 - 125	5.32	20	
1,2-Dichloroethane	1	0.025	0.0	0.0253	101	0.0235	93.9	60 - 126	7.6	20	
1,2-Dichloropropane	1	0.025	0.0	0.0240	96	0.0229	91.5	64.2 - 123	4.8	20	
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0225	90	0.0242	96.8	63.6 - 132	7.37	20.5	
2-Butanone (MEK)	1	0.125	0.0	0.1828	146	0.1538	123	22.4 - 138	J5 17.2	27	
2-Hexanone	1	0.125	0.0	0.1362	109	0.1221	97.7	43.3 - 137	10.9	25.5	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1449	116	0.1250	100	60.8 - 140	14.8	25.1	
Acetone	1	0.125	0.0098	0.1422	106	0.1207	88.8	10 - 130	16.4	27.9	
Benzene	1	0.025	0.0	0.0226	90.6	0.0226	90.6	54.3 - 133	0	20	
Bromodichloromethane	1	0.025	0.0	0.0242	96.8	0.0232	92.7	63.9 - 121	4.34	20	
Bromoform	1	0.025	0.0	0.0285	114	0.0258	103	59.5 - 134	10.1	20.5	
Bromomethane	1	0.025	0.0	0.0228	91.2	0.0223	89.2	41.7 - 155	2.18	21.9	
Carbon disulfide	1	0.025	0.0	0.0170	68	0.0177	70.9	43.3 - 149	4.22	20.3	
Carbon tetrachloride	1	0.025	0.0	0.0218	87	0.0232	92.8	55.7 - 134	6.47	20	
Chlorobenzene	1	0.025	0.0	0.0229	91.6	0.0242	96.7	67 - 125	5.42	20	
Chlorodibromomethane	1	0.025	0.0	0.0256	102	0.0254	102	64.3 - 125	0.64	20.8	
Chloroethane	1	0.025	0.0	0.0222	89	0.0238	95.4	51.5 - 136	6.91	40	
Chloroform	1	0.025	0.0	0.0225	90.2	0.0230	92.1	63 - 129	2.04	20	
Chloromethane	1	0.025	0.0	0.0191	76.6	0.0196	78.2	42.4 - 135	2.07	20	
cis-1,2-Dichloroethene	1	0.025	0.0	0.0230	92.2	0.0222	88.8	59.2 - 129	3.7	20	
cis-1,3-Dichloropropene	1	0.025	0.0	0.0252	101	0.0237	94.7	66.4 - 125	6.07	20	
Ethylbenzene	1	0.025	0.0	0.0215	85.9	0.0236	94.4	61.4 - 133	9.42	20	
Isopropylbenzene	1	0.025	0.0	0.0215	85.8	0.0234	93.6	66.8 - 141	8.71	20	
m&p-Xylenes	1	0.05	0.0	0.0436	87.1	0.0467	93.4	61.7 - 133	6.93	20	
Methyl tert-butyl ether	1	0.025	0.0	0.0255	102	0.0231	92.6	57.7 - 134	9.53	20	
Methylene Chloride	1	0.025	0.0	0.0223	89.2	0.0218	87.2	58.1 - 122	2.23	20	
Naphthalene	1	0.025	0.0	0.0277	111	0.0252	101	58 - 135	9.2	25.5	
n-Butylbenzene	1	0.025	0.0	0.0222	88.7	0.0235	93.9	62.7 - 140	5.69	20.3	
n-Propylbenzene	1	0.025	0.0	0.0222	88.6	0.0242	96.8	65.9 - 131	8.82	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754919
Analysis Date:	11/21/2014 10:42:00 PM	Analyst:	644
Instrument ID:	VOCMS13		
Sample Numbers:	L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162		

Matrix Spike / Matrix Spike Duplicate

L733743-156

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
o-Xylene	1	0.025	0.0	0.0218	87.4	0.0234	93.7	63.3 - 130	7.03	20		
p-Isopropyltoluene	1	0.025	0.0	0.0226	90.5	0.0249	99.7	63.2 - 139	9.57	20.4		
sec-Butylbenzene	1	0.025	0.0	0.0221	88.4	0.0244	97.7	62.2 - 136	9.94	20.3		
Styrene	1	0.025	0.0	0.0251	101	0.0256	102	66.8 - 133	1.63	20		
Tetrachloroethene	1	0.025	0.0	0.0211	84.4	0.0230	92.1	53 - 139	8.67	20		
Toluene	1	0.025	0.0	0.0224	89.4	0.0225	90.1	61.4 - 130	0.78	20		
trans-1,2-Dichloroethene	1	0.025	0.0	0.0218	87.3	0.0229	91.7	56.5 - 129	4.96	20		
trans-1,3-Dichloropropene	1	0.025	0.0	0.0266	106	0.0233	93.3	64.1 - 128	13	20		
Trichloroethene	1	0.025	0.0	0.0228	91.2	0.0236	94.3	44.1 - 149	3.36	20		
Vinyl chloride	1	0.025	0.0	0.0205	81.9	0.0213	85	47.8 - 137	3.71	20		
Xylenes, Total	1	0.075	0.0	0.0654	87.2	0.0701	93.5	63.3 - 131	6.97	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Matrix Spike / Matrix Spike Duplicate

L733584-01

Analyte	Dil	Spike		Control				% Rec Qual	Control RPD	RPD	Control Limits	RPD
		Value	Sample	MS	% Rec	MSD	% Rec					
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0286	114	0.0265	106	64 - 128	7.62	20		
1,1,1-Trichloroethane	1	0.025	0.0	0.0246	98.6	0.0214	85.7	58.7 - 134	13.9	20		
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0278	111	0.0275	110	56 - 132	0.9	22.2		
1,1,2-Trichloroethane	1	0.025	0.0	0.0272	109	0.0260	104	66.3 - 125	4.74	20		
1,1-Dichloroethane	1	0.025	0.0	0.0226	90.5	0.0205	81.8	58.5 - 132	10	20		
1,1-Dichloroethene	1	0.025	0.0	0.0197	78.9	0.0168	67.3	51.1 - 140	15.8	20.2		
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0267	107	0.0247	98.8	57.4 - 137	7.66	20		
1,2-Dibromoethane	1	0.025	0.0	0.0287	115	0.0269	108	67.1 - 125	6.6	20		
1,2-Dichloroethane	1	0.025	0.0	0.0207	83	0.0201	80.4	60 - 126	3.18	20		
1,2-Dichloropropane	1	0.025	0.0	0.0256	102	0.0234	93.6	64.2 - 123	8.84	20		
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0269	108	0.0239	95.6	63.6 - 132	11.9	20.5		
2-Butanone (MEK)	1	0.125	0.0	0.1062	84.9	0.1102	88.1	22.4 - 138	3.7	27		
2-Hexanone	1	0.125	0.0	0.1448	116	0.1421	114	43.3 - 137	1.85	25.5		
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1350	108	0.1330	106	60.8 - 140	1.53	25.1		
Acetone	1	0.125	0.0042	0.0873	66.5	0.0913	69.7	10 - 130	4.44	27.9		
Benzene	1	0.025	0.0	0.0228	91.2	0.0206	82.4	54.3 - 133	10.2	20		
Bromodichloromethane	1	0.025	0.0	0.0243	97.1	0.0220	87.8	63.9 - 121	9.98	20		
Bromoform	1	0.025	0.0	0.0306	122	0.0290	116	59.5 - 134	5.51	20.5		
Bromomethane	1	0.025	0.0	0.0297	119	0.0241	96.2	41.7 - 155	20.9	21.9		
Carbon disulfide	1	0.025	0.0	0.0182	72.8	0.0158	63	43.3 - 149	14.4	20.3		
Carbon tetrachloride	1	0.025	0.0	0.0254	102	0.0218	87.1	55.7 - 134	15.4	20		
Chlorobenzene	1	0.025	0.0	0.0283	113	0.0256	102	67 - 125	10.2	20		
Chlorodibromomethane	1	0.025	0.0	0.0287	115	0.0272	109	64.3 - 125	5.19	20.8		
Chloroethane	1	0.025	0.0	0.0257	103	0.0226	90.2	51.5 - 136	13	40		
Chloroform	1	0.025	0.0	0.0230	91.8	0.0212	84.8	63 - 129	7.99	20		
Chloromethane	1	0.025	0.0	0.0187	74.8	0.0162	64.8	42.4 - 135	14.4	20		
cis-1,2-Dichloroethene	1	0.025	0.0	0.0240	96.2	0.0219	87.8	59.2 - 129	9.12	20		
cis-1,3-Dichloropropene	1	0.025	0.0	0.0252	101	0.0226	90.3	66.4 - 125	11	20		
Ethylbenzene	1	0.025	0.0	0.0278	111	0.0247	98.6	61.4 - 133	12	20		
Isopropylbenzene	1	0.025	0.0	0.0284	114	0.0250	100	66.8 - 141	12.6	20		
m&p-Xylenes	1	0.05	0.0	0.0556	111	0.0498	99.5	61.7 - 133	11.1	20		
Methyl tert-butyl ether	1	0.025	0.0	0.0225	90.1	0.0222	88.7	57.7 - 134	1.57	20		
Methylene Chloride	1	0.025	0.0	0.0237	95	0.0223	89.1	58.1 - 122	6.36	20		
Naphthalene	1	0.025	0.0	0.0241	96.3	0.0239	95.8	58 - 135	0.51	25.5		
n-Butylbenzene	1	0.025	0.0	0.0247	98.9	0.0223	89.3	62.7 - 140	10.2	20.3		
n-Propylbenzene	1	0.025	0.0	0.0283	113	0.0250	100	65.9 - 131	12.3	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Matrix Spike / Matrix Spike Duplicate

L733584-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
o-Xylene	1	0.025	0.0	0.0269	107	0.0237	94.8	63.3 - 130		12.5	20	
p-Isopropyltoluene	1	0.025	0.0	0.0301	120	0.0267	107	63.2 - 139		12.1	20.4	
sec-Butylbenzene	1	0.025	0.0	0.0295	118	0.0262	105	62.2 - 136		12	20.3	
Styrene	1	0.025	0.0	0.0274	109	0.0251	100	66.8 - 133		8.52	20	
Tetrachloroethene	1	0.025	0.0	0.0319	128	0.0274	109	53 - 139		15.3	20	
Toluene	1	0.025	0.0	0.0281	112	0.0242	96.7	61.4 - 130		14.9	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0227	91	0.0204	81.7	56.5 - 129		10.7	20	
trans-1,3-Dichloropropene	1	0.025	0.0	0.0269	107	0.0246	98.6	64.1 - 128		8.67	20	
Trichloroethene	1	0.025	0.0	0.0281	112	0.0245	98.1	44.1 - 149		13.6	20	
Vinyl chloride	1	0.025	0.0	0.0178	71	0.0149	59.6	47.8 - 137		17.5	20	
Xylenes, Total	1	0.075	0.0	0.0825	110	0.0735	98	63.3 - 131		11.6	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755673
Analysis Date:	11/21/2014 8:51:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-106, -107, -110, -115		

Matrix Spike / Matrix Spike Duplicate

L734213-01

Analyte	Dil	Spike		Control				% Rec Qual	RPD	Control Limits	RPD	Control Limits	RPD
		Value	Sample	MS	% Rec	MSD	% Rec						
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0252	101	0.0280	112	64 - 128	10.4	20			
1,1,1-Trichloroethane	1	0.025	0.0	0.0228	91.3	0.0246	98.2	58.7 - 134	7.3	20			
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0240	96.2	0.0274	110	56 - 132	13	22.2			
1,1,2-Trichloroethane	1	0.025	0.0	0.0239	95.4	0.0268	107	66.3 - 125	11.6	20			
1,1-Dichloroethane	1	0.025	0.0	0.0208	83.2	0.0225	89.8	58.5 - 132	7.72	20			
1,1-Dichloroethene	1	0.025	0.0	0.0209	83.7	0.0218	87.2	51.1 - 140	4.15	20.2			
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0236	94.4	0.0264	105	57.4 - 137	11.1	20			
1,2-Dibromoethane	1	0.025	0.0	0.0253	101	0.0281	112	67.1 - 125	10.4	20			
1,2-Dichloroethane	1	0.025	0.0	0.0193	77.2	0.0214	85.6	60 - 126	10.3	20			
1,2-Dichloropropane	1	0.025	0.0	0.0220	88.1	0.0246	98.4	64.2 - 123	11	20			
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0241	96.5	0.0268	107	63.6 - 132	10.4	20.5			
2-Butanone (MEK)	1	0.125	0.0	0.0968	77.5	0.1128	90.3	22.4 - 138	15.3	27			
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1171	93.7	0.1330	106	60.8 - 140	12.7	25.1			
Acetone	1	0.125	0.0041	0.0891	68	0.1139	87.8	10 - 130	24.4	27.9			
Benzene	1	0.025	0.0	0.0213	85.2	0.0235	94.2	54.3 - 133	10.1	20			
Bromodichloromethane	1	0.025	0.0013	0.0225	84.7	0.0249	94.2	63.9 - 121	10.1	20			
Bromoform	1	0.025	0.0041	0.0308	107	0.0342	120	59.5 - 134	10.5	20.5			
Bromomethane	1	0.025	0.0	0.0280	112	0.0279	112	41.7 - 155	0.1	21.9			
Carbon disulfide	1	0.025	0.0	0.0238	95	0.0248	99.2	43.3 - 149	4.26	20.3			
Carbon tetrachloride	1	0.025	0.0	0.0235	94.2	0.0252	101	55.7 - 134	6.85	20			
Chlorobenzene	1	0.025	0.0	0.0246	98.3	0.0282	113	67 - 125	13.6	20			
Chlorodibromomethane	1	0.025	0.0041	0.0284	97.3	0.0321	112	64.3 - 125	12.3	20.8			
Chloroethane	1	0.025	0.0	0.0275	110	0.0264	106	51.5 - 136	3.87	40			
Chloroform	1	0.025	0.0004	0.0213	83.9	0.0232	91.5	63 - 129	8.52	20			
Chloromethane	1	0.025	0.0	0.0197	78.8	0.0213	85.3	42.4 - 135	7.82	20			
cis-1,2-Dichloroethene	1	0.025	0.0	0.0223	89.2	0.0245	97.8	59.2 - 129	9.15	20			
cis-1,3-Dichloropropene	1	0.025	0.0	0.0217	86.8	0.0244	97.4	66.4 - 125	11.6	20			
Ethylbenzene	1	0.025	0.0	0.0246	98.3	0.0279	112	61.4 - 133	12.7	20			
Isopropylbenzene	1	0.025	0.0	0.0253	101	0.0283	113	66.8 - 141	11	20			
m&p-Xylenes	1	0.05	0.0	0.0499	99.9	0.0554	111	61.7 - 133	10.4	20			
Methyl tert-butyl ether	1	0.025	0.0	0.0203	81.1	0.0228	91.3	57.7 - 134	11.9	20			
Methylene Chloride	1	0.025	0.0005	0.0231	90.6	0.0252	99	58.1 - 122	8.69	20			
Naphthalene	1	0.025	0.0	0.0218	87.3	0.0248	99.2	58 - 135	12.8	25.5			
n-Butylbenzene	1	0.025	0.0	0.0224	89.5	0.0244	97.5	62.7 - 140	8.56	20.3			
n-Propylbenzene	1	0.025	0.0	0.0251	101	0.0277	111	65.9 - 131	9.85	20			
o-Xylene	1	0.025	0.0	0.0241	96.6	0.0269	108	63.3 - 130	10.8	20			



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755673
Analysis Date:	11/21/2014 8:51:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-106, -107, -110, -115		

Matrix Spike / Matrix Spike Duplicate

L734213-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
p-Isopropyltoluene	1	0.025	0.0	0.0270	108	0.0300	120	63.2 - 139		10.7	20.4	
sec-Butylbenzene	1	0.025	0.0	0.0258	103	0.0291	116	62.2 - 136		11.9	20.3	
Styrene	1	0.025	0.0	0.0244	97.5	0.0265	106	66.8 - 133		8.37	20	
Tetrachloroethene	1	0.025	0.0	0.0290	116	0.0322	129	53 - 139		10.4	20	
Toluene	1	0.025	0.0	0.0247	98.7	0.0274	110	61.4 - 130		10.4	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0232	92.9	0.0245	97.8	56.5 - 129		5.22	20	
trans-1,3-Dichloropropene	1	0.025	0.0	0.0219	87.5	0.0262	105	64.1 - 128		17.9	20	
Trichloroethene	1	0.025	0.0	0.0257	103	0.0283	113	44.1 - 149		9.41	20	
Vinyl chloride	1	0.025	0.0	0.0190	76	0.0193	77.1	47.8 - 137		1.43	20	
Xylenes, Total	1	0.075	0.0	0.0741	98.8	0.0823	110	63.3 - 131		10.5	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755736
Analysis Date:	11/20/2014 4:24:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145		

Matrix Spike / Matrix Spike Duplicate

L733686-01

Analyte	Dil	Spike		Control				% Rec Qual	RPD	Control Limits	RPD
		Value	Sample	MS	% Rec	MSD	% Rec				
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0251	100	0.0234	93.4	64 - 128	7.23	20	
1,1,1-Trichloroethane	1	0.025	0.0	0.0285	114	0.0240	96	58.7 - 134	17.2	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0266	106	0.0254	102	56 - 132	4.48	22.2	
1,1,2-Trichloroethane	1	0.025	0.0	0.0263	105	0.0253	101	66.3 - 125	3.79	20	
1,1-Dichloroethane	1	0.025	0.0	0.0278	111	0.0244	97.5	58.5 - 132	13.1	20	
1,1-Dichloroethene	1	0.025	0.0	0.0234	93.6	0.0201	80.4	51.1 - 140	15.1	20.2	
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0238	95.2	0.0220	88.2	57.4 - 137	7.71	20	
1,2-Dibromoethane	1	0.025	0.0	0.0235	94.1	0.0225	90.1	67.1 - 125	4.37	20	
1,2-Dichloroethane	1	0.025	0.0	0.0245	98	0.0226	90.5	60 - 126	8	20	
1,2-Dichloropropane	1	0.025	0.0013	0.0266	101	0.0239	90.7	64.2 - 123	10.6	20	
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0253	101	0.0232	93	63.6 - 132	8.6	20.5	
2-Butanone (MEK)	1	0.125	0.0	0.1494	120	0.1339	107	22.4 - 138	10.9	27	
2-Hexanone	1	0.125	0.0	0.1349	108	0.1275	102	43.3 - 137	5.63	25.5	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1345	108	0.1255	100	60.8 - 140	6.98	25.1	
Acetone	1	0.125	0.0038	0.1166	90.2	0.1061	81.8	10 - 130	9.42	27.9	
Benzene	1	0.025	0.1307	0.1488	72.4	0.1405	39.2	54.3 - 133	V	5.74	20
Bromodichloromethane	1	0.025	0.0	0.0243	97.1	0.0225	90.2	63.9 - 121	7.34	20	
Bromoform	1	0.025	0.0	0.0230	91.8	0.0226	90.5	59.5 - 134	1.44	20.5	
Bromomethane	1	0.025	0.0	0.0344	138	0.0296	118	41.7 - 155	15	21.9	
Carbon disulfide	1	0.025	0.0	0.0188	75.1	0.0159	63.6	43.3 - 149	16.6	20.3	
Carbon tetrachloride	1	0.025	0.0	0.0268	107	0.0228	91.3	55.7 - 134	15.8	20	
Chlorobenzene	1	0.025	0.0	0.0247	98.8	0.0230	92	67 - 125	7.1	20	
Chlorodibromomethane	1	0.025	0.0	0.0234	93.4	0.0227	90.6	64.3 - 125	3.04	20.8	
Chloroethane	1	0.025	0.0	0.0264	106	0.0237	94.7	51.5 - 136	10.9	40	
Chloroform	1	0.025	0.0087	0.0352	106	0.0322	94.1	63 - 129	8.98	20	
Chloromethane	1	0.025	0.0	0.0197	78.9	0.0169	67.5	42.4 - 135	15.6	20	
cis-1,2-Dichloroethene	1	0.025	0.0	0.0252	101	0.0228	91.2	59.2 - 129	9.92	20	
cis-1,3-Dichloropropene	1	0.025	0.0	0.0248	99.2	0.0233	93.1	66.4 - 125	6.35	20	
Ethylbenzene	1	0.025	0.0	0.0250	100	0.0229	91.6	61.4 - 133	8.87	20	
Isopropylbenzene	1	0.025	0.0	0.0256	103	0.0234	93.5	66.8 - 141	9.24	20	
m&p-Xylenes	1	0.05	0.0	0.0491	98.2	0.0454	90.8	61.7 - 133	7.85	20	
Methyl tert-butyl ether	1	0.025	0.0015	0.0286	109	0.0263	99.2	57.7 - 134	8.61	20	
Methylene Chloride	1	0.025	0.0008	0.0263	102	0.0235	90.7	58.1 - 122	11.2	20	
Naphthalene	1	0.025	0.0	0.0270	108	0.0256	102	58 - 135	5.64	25.5	
n-Butylbenzene	1	0.025	0.0	0.0285	114	0.0259	104	62.7 - 140	9.55	20.3	
n-Propylbenzene	1	0.025	0.0	0.0258	103	0.0236	94.4	65.9 - 131	9.01	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755736
Analysis Date:	11/20/2014 4:24:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145		

Matrix Spike / Matrix Spike Duplicate

L733686-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
o-Xylene	1	0.025	0.0	0.0255	102	0.0232	92.9	63.3 - 130	9.21	20		
p-Isopropyltoluene	1	0.025	0.0	0.0256	102	0.0234	93.6	63.2 - 139	8.94	20.4		
sec-Butylbenzene	1	0.025	0.0	0.0265	106	0.0238	95.3	62.2 - 136	10.7	20.3		
Styrene	1	0.025	0.0	0.0249	99.6	0.0233	93.2	66.8 - 133	6.59	20		
Tetrachloroethene	1	0.025	0.0	0.0245	98.1	0.0224	89.4	53 - 139	9.28	20		
Toluene	1	0.025	0.0	0.0245	98	0.0221	88.3	61.4 - 130	10.4	20		
trans-1,2-Dichloroethene	1	0.025	0.0	0.0245	98	0.0214	85.5	56.5 - 129	13.7	20		
trans-1,3-Dichloropropene	1	0.025	0.0	0.0225	89.8	0.0219	87.5	64.1 - 128	2.55	20		
Trichloroethene	1	0.025	0.0	0.0255	102	0.0225	90	44.1 - 149	12.6	20		
Vinyl chloride	1	0.025	0.0	0.0238	95	0.0194	77.8	47.8 - 137	20	20		
Xylenes, Total	1	0.075	0.0	0.0746	99.4	0.0686	91.5	63.3 - 131	8.31	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Matrix Spike / Matrix Spike Duplicate

L733818-01

Analyte	Dil	Spike		Control				% Rec Qual	Control RPD	RPD	Control Limits	RPD
		Value	Sample	MS	% Rec	MSD	% Rec					
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0213	85.2	0.0201	80.3	64 - 128	5.92	20		
1,1,1-Trichloroethane	1	0.025	0.0	0.0235	93.9	0.0228	91.1	58.7 - 134	3.03	20		
1,1,2,2-Tetrachloroethane	1	0.025	0.0004	0.0216	84.7	0.0210	82.5	56 - 132	2.59	22.2		
1,1,2-Trichloroethane	1	0.025	0.0019	0.0226	82.8	0.0203	73.5	66.3 - 125	10.8	20		
1,1-Dichloroethane	1	0.025	0.0	0.0209	83.7	0.0194	77.6	58.5 - 132	7.65	20		
1,1-Dichloroethene	1	0.025	0.0	0.0209	83.6	0.0193	77.2	51.1 - 140	7.95	20.2		
1,2,4-Trimethylbenzene	1	0.025	0.0004	0.0213	83.9	0.0203	79.6	57.4 - 137	5.21	20		
1,2-Dibromoethane	1	0.025	0.0	0.0209	83.5	0.0190	76	67.1 - 125	9.43	20		
1,2-Dichloroethane	1	0.025	0.0	0.0201	80.3	0.0183	73.2	60 - 126	9.22	20		
1,2-Dichloropropane	1	0.025	0.0013	0.0221	83.5	0.0193	72	64.2 - 123	13.9	20		
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0218	87.2	0.0209	83.8	63.6 - 132	4.06	20.5		
2-Butanone (MEK)	1	0.125	0.0062	0.0901	67.1	0.0877	65.2	22.4 - 138	2.72	27		
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1058	84.7	0.1052	84.1	60.8 - 140	0.64	25.1		
Acetone	1	0.125	0.0147	0.0914	61.3	0.0936	63.1	10 - 130	2.37	27.9		
Benzene	1	0.025	0.0	0.0213	85.2	0.0192	76.9	54.3 - 133	10.2	20		
Bromodichloromethane	1	0.025	0.0005	0.0214	83.5	0.0187	72.7	63.9 - 121	13.4	20		
Bromoform	1	0.025	0.0	0.0218	87.2	0.0204	81.7	59.5 - 134	6.5	20.5		
Bromomethane	1	0.025	0.0	0.0219	87.6	0.0204	81.7	41.7 - 155	6.97	21.9		
Carbon tetrachloride	1	0.025	0.0	0.0214	85.8	0.0203	81	55.7 - 134	5.66	20		
Chlorobenzene	1	0.025	0.0	0.0220	88.1	0.0197	79	67 - 125	11	20		
Chlorodibromomethane	1	0.025	0.0	0.0206	82.3	0.0184	73.6	64.3 - 125	11.1	20.8		
Chloroethane	1	0.025	0.0	0.0235	93.9	0.0218	87.2	51.5 - 136	7.41	40		
Chloroform	1	0.025	0.0	0.0217	86.7	0.0201	80.3	63 - 129	7.66	20		
Chloromethane	1	0.025	0.0	0.0155	62	0.0158	63.2	42.4 - 135	1.84	20		
cis-1,2-Dichloroethene	1	0.025	0.0	0.0214	85.8	0.0201	80.3	59.2 - 129	6.51	20		
cis-1,3-Dichloropropene	1	0.025	0.0	0.0217	86.9	0.0189	75.7	66.4 - 125	13.7	20		
Ethylbenzene	1	0.025	0.0030	0.0252	88.6	0.0229	79.7	61.4 - 133	9.25	20		
Isopropylbenzene	1	0.025	0.0288	0.0535	99.1	0.0509	88.4	66.8 - 141	5.12	20		
m&p-Xylenes	1	0.05	0.0	0.0446	89.1	0.0402	80.3	61.7 - 133	10.4	20		
Methyl tert-butyl ether	1	0.025	0.0	0.0212	84.9	0.0207	82.6	57.7 - 134	2.74	20		
Methylene Chloride	1	0.025	0.0	0.0203	81.2	0.0191	76.6	58.1 - 122	5.86	20		
Naphthalene	1	0.025	0.1027	0.1288	104	0.1295	107	58 - 135	0.56	25.5		
n-Butylbenzene	1	0.025	0.0105	0.0328	89.1	0.0299	77.3	62.7 - 140	9.42	20.3		
n-Propylbenzene	1	0.025	0.0964	0.1270	122	0.1215	101	65.9 - 131	4.4	20		
o-Xylene	1	0.025	0.0	0.0210	84.1	0.0196	78.5	63.3 - 130	6.87	20		
p-Isopropyltoluene	1	0.025	0.0	0.0225	90	0.0217	87	63.2 - 139	3.45	20.4		



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Matrix Spike / Matrix Spike Duplicate

L733818-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
sec-Butylbenzene	1	0.025	0.0081	0.0305	89.9	0.0295	85.6	62.2 - 136	3.56	20.3		
Styrene	1	0.025	0.0	0.0220	88.1	0.0195	78.2	66.8 - 133	11.9	20		
Tetrachloroethene	1	0.025	0.0	0.0241	96.6	0.0215	85.9	53 - 139	11.7	20		
Toluene	1	0.025	0.0006	0.0223	87	0.0201	78.2	61.4 - 130	10.3	20		
trans-1,2-Dichloroethene	1	0.025	0.0	0.0217	86.9	0.0206	82.2	56.5 - 129	5.45	20		
trans-1,3-Dichloropropene	1	0.025	0.0033	0.0224	76.7	0.0194	64.6	64.1 - 128	14.5	20		
Trichloroethene	1	0.025	0.0	0.0236	94.4	0.0219	87.6	44.1 - 149	7.56	20		
Vinyl chloride	1	0.025	0.0	0.0202	80.8	0.0190	76.2	47.8 - 137	5.89	20		
Xylenes, Total	1	0.075	0.0	0.0656	87.4	0.0598	79.7	63.3 - 131	9.24	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Matrix Spike / Matrix Spike Duplicate

L733847-05

Analyte	Dil	Spike		Control				% Rec Qual	RPD	Control Limits	RPD
		Value	Sample	MS	% Rec	MSD	% Rec				
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0252	101	0.0278	111	64 - 128	J5	9.84	20
1,1,1-Trichloroethane	1	0.025	0.0	0.0226	90.5	0.0254	102	58.7 - 134	J5	11.4	20
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0251	100	0.0278	111	56 - 132	J5	10.3	22.2
1,1,2-Trichloroethane	1	0.025	0.0	0.0253	101	0.0280	112	66.3 - 125	J5	10.2	20
1,1-Dichloroethane	1	0.025	0.0	0.0232	93	0.0259	104	58.5 - 132	J5	11	20
1,1-Dichloroethene	1	0.025	0.0	0.0240	96.2	0.0267	107	51.1 - 140	J5	10.4	20.2
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0247	98.8	0.0270	108	57.4 - 137	J5	8.85	20
1,2-Dibromoethane	1	0.025	0.0	0.0262	105	0.0287	115	67.1 - 125	J5	9.15	20
1,2-Dichloroethane	1	0.025	0.0	0.0185	74.1	0.0213	85.4	60 - 126	J5	14.2	20
1,2-Dichloropropane	1	0.025	0.0	0.0235	94	0.0265	106	64.2 - 123	J5	12.1	20
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0255	102	0.0274	110	63.6 - 132	J5	7.38	20.5
2-Butanone (MEK)	1	0.125	0.0016	0.1104	87	0.1310	103	22.4 - 138	J5	17.1	27
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1244	99.6	0.1451	116	60.8 - 140	J5	15.3	25.1
Acetone	1	0.125	0.0825	0.2349	122	0.2592	141	10 - 130	J5	9.83	27.9
Benzene	1	0.025	0.0	0.0230	92	0.0254	102	54.3 - 133	J5	9.93	20
Bromodichloromethane	1	0.025	0.0	0.0228	91.2	0.0251	100	63.9 - 121	J5	9.52	20
Bromoform	1	0.025	0.0	0.0246	98.4	0.0275	110	59.5 - 134	J5	11.1	20.5
Bromomethane	1	0.025	0.0	0.0151	60.3	0.0184	73.6	41.7 - 155	J5	19.8	21.9
Carbon tetrachloride	1	0.025	0.0	0.0230	91.9	0.0255	102	55.7 - 134	J5	10.3	20
Chlorobenzene	1	0.025	0.0	0.0247	98.8	0.0263	105	67 - 125	J5	6.26	20
Chlorodibromomethane	1	0.025	0.0	0.0253	101	0.0283	113	64.3 - 125	J5	11.3	20.8
Chloroethane	1	0.025	0.0	0.0140	55.9	0.0159	63.5	51.5 - 136	J5	12.7	40
Chloroform	1	0.025	0.0	0.0224	89.6	0.0245	98.1	63 - 129	J5	9.04	20
Chloromethane	1	0.025	0.0	0.0238	95.4	0.0263	105	42.4 - 135	J5	9.63	20
cis-1,2-Dichloroethene	1	0.025	0.0	0.0233	93	0.0261	105	59.2 - 129	J5	11.6	20
cis-1,3-Dichloropropene	1	0.025	0.0	0.0243	97.3	0.0278	111	66.4 - 125	J5	13.2	20
Ethylbenzene	1	0.025	0.0	0.0251	100	0.0267	107	61.4 - 133	J5	6.33	20
Isopropylbenzene	1	0.025	0.0	0.0261	105	0.0284	114	66.8 - 141	J5	8.35	20
m&p-Xylenes	1	0.05	0.0006	0.0517	102	0.0562	111	61.7 - 133	J5	8.33	20
Methyl tert-butyl ether	1	0.025	0.0	0.0226	90.6	0.0259	103	57.7 - 134	J5	13.3	20
Methylene Chloride	1	0.025	0.0	0.0229	91.8	0.0258	103	58.1 - 122	J5	11.9	20
Naphthalene	1	0.025	0.0003	0.0297	117	0.0345	137	58 - 135	J5	15.1	25.5
n-Butylbenzene	1	0.025	0.0	0.0278	111	0.0302	121	62.7 - 140	J5	8.1	20.3
n-Propylbenzene	1	0.025	0.0	0.0259	104	0.0281	112	65.9 - 131	J5	8	20
o-Xylene	1	0.025	0.0	0.0271	108	0.0299	120	63.3 - 130	J5	9.87	20
p-Isopropyltoluene	1	0.025	0.0	0.0248	99.3	0.0267	107	63.2 - 139	J5	7.14	20.4



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Matrix Spike / Matrix Spike Duplicate

L733847-05

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
sec-Butylbenzene	1	0.025	0.0	0.0251	100	0.0274	109	62.2 - 136		8.52	20.3	
Styrene	1	0.025	0.0	0.0258	103	0.0286	114	66.8 - 133		10.2	20	
Tetrachloroethene	1	0.025	0.0133	0.0385	101	0.0408	110	53 - 139		5.79	20	
Toluene	1	0.025	0.0	0.0227	90.8	0.0254	102	61.4 - 130		11.4	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0249	99.7	0.0279	112	56.5 - 129		11.4	20	
trans-1,3-Dichloropropene	1	0.025	0.0	0.0242	96.9	0.0267	107	64.1 - 128		9.63	20	
Trichloroethene	1	0.025	0.0018	0.0270	101	0.0294	110	44.1 - 149		8.5	20	
Vinyl chloride	1	0.025	0.0	0.0212	84.8	0.0240	95.8	47.8 - 137		12.2	20	
Xylenes, Total	1	0.075	0.0006	0.0788	104	0.0861	114	63.3 - 131		8.87	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Matrix Spike / Matrix Spike Duplicate

L734135-06

Analyte	Dil	Spike		Control				% Rec Qual	RPD	Control Limits	RPD	Control Limits	RPD
		Value	Sample	MS	% Rec	MSD	% Rec						
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0227	90.9	0.0227	90.9	64 - 128	0.02	20			
1,1,1-Trichloroethane	1	0.025	0.0	0.0308	123	0.0303	121	58.7 - 134	1.49	20			
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0263	105	0.0261	104	56 - 132	1.02	22.2			
1,1,2-Trichloroethane	1	0.025	0.0	0.0256	103	0.0249	99.8	66.3 - 125	2.75	20			
1,1-Dichloroethane	1	0.025	0.0	0.0304	121	0.0305	122	58.5 - 132	0.58	20			
1,1-Dichloroethene	1	0.025	0.0	0.0321	128	0.0320	128	51.1 - 140	0.28	20.2			
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0245	98	0.0236	94.5	57.4 - 137	3.62	20			
1,2-Dibromoethane	1	0.025	0.0	0.0248	99.4	0.0246	98.2	67.1 - 125	1.2	20			
1,2-Dichloroethane	1	0.025	0.0	0.0307	123	0.0307	123	60 - 126	0.11	20			
1,2-Dichloropropane	1	0.025	0.0011	0.0275	106	0.0275	105	64.2 - 123	0.17	20			
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0248	99.1	0.0241	96.4	63.6 - 132	2.76	20.5			
2-Butanone (MEK)	1	0.125	0.0008	0.1524	121	0.1561	124	22.4 - 138	2.39	27			
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1436	115	0.1427	114	60.8 - 140	0.57	25.1			
Acetone	1	0.125	0.0056	0.1380	106	0.1412	109	10 - 130	2.32	27.9			
Benzene	1	0.025	0.0	0.0281	112	0.0283	113	54.3 - 133	0.86	20			
Bromodichloromethane	1	0.025	0.0033	0.0306	109	0.0308	110	63.9 - 121	0.56	20			
Bromoform	1	0.025	0.0	0.0210	84	0.0218	87.1	59.5 - 134	3.61	20.5			
Bromomethane	1	0.025	0.0	0.0270	108	0.0276	110	41.7 - 155	2.06	21.9			
Carbon tetrachloride	1	0.025	0.0	0.0285	114	0.0284	114	55.7 - 134	0.26	20			
Chlorobenzene	1	0.025	0.0	0.0244	97.5	0.0240	95.8	67 - 125	1.79	20			
Chlorodibromomethane	1	0.025	0.0	0.0246	98.4	0.0245	98.1	64.3 - 125	0.34	20.8			
Chloroethane	1	0.025	0.0	0.0298	119	0.0298	119	51.5 - 136	0.01	40			
Chloroform	1	0.025	0.0172	0.0461	115	0.0474	121	63 - 129	2.9	20			
Chloromethane	1	0.025	0.0	0.0255	102	0.0262	105	42.4 - 135	2.79	20			
cis-1,2-Dichloroethene	1	0.025	0.0	0.0283	113	0.0278	111	59.2 - 129	1.88	20			
Ethylbenzene	1	0.025	0.0	0.0250	99.9	0.0239	95.7	61.4 - 133	4.2	20			
Isopropylbenzene	1	0.025	0.0	0.0246	98.6	0.0241	96.3	66.8 - 141	2.3	20			
m&p-Xylenes	1	0.05	0.0	0.0489	97.9	0.0474	94.8	61.7 - 133	3.21	20			
Methyl tert-butyl ether	1	0.025	0.0	0.0288	115	0.0289	115	57.7 - 134	0.09	20			
Methylene Chloride	1	0.025	0.0	0.0264	106	0.0265	106	58.1 - 122	0.38	20			
Naphthalene	1	0.025	0.0	0.0261	104	0.0259	104	58 - 135	0.48	25.5			
n-Butylbenzene	1	0.025	0.0	0.0305	122	0.0294	118	62.7 - 140	3.74	20.3			
n-Propylbenzene	1	0.025	0.0	0.0256	102	0.0249	99.7	65.9 - 131	2.5	20			
o-Xylene	1	0.025	0.0	0.0245	98.1	0.0239	95.8	63.3 - 130	2.41	20			
p-Isopropyltoluene	1	0.025	0.0	0.0236	94.5	0.0230	92.2	63.2 - 139	2.52	20.4			
sec-Butylbenzene	1	0.025	0.0	0.0248	99.2	0.0243	97.3	62.2 - 136	2.02	20.3			

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Matrix Spike / Matrix Spike Duplicate

L734135-06

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Styrene	1	0.025	0.0	0.0245	98	0.0242	96.7	66.8 - 133		1.34	20	
Tetrachloroethene	1	0.025	0.0	0.0221	88.4	0.0218	87	53 - 139		1.58	20	
Toluene	1	0.025	0.0005	0.0265	104	0.0263	103	61.4 - 130		0.67	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0263	105	0.0265	106	56.5 - 129		1	20	
Trichloroethene	1	0.025	0.0	0.0243	97.2	0.0241	96.3	44.1 - 149		0.94	20	
Vinyl chloride	1	0.025	0.0	0.0279	112	0.0282	113	47.8 - 137		0.94	20	
Xylenes, Total	1	0.075	0.0	0.0735	97.9	0.0713	95.1	63.3 - 131		2.94	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Matrix Spike / Matrix Spike Duplicate

L733743-158

Analyte	Dil	Spike		Control				% Rec Qual	Control RPD	RPD	Control Limits	RPD
		Value	Sample	MS	% Rec	MSD	% Rec					
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0239	95.5	0.0233	93.2	64 - 128	2.42	20		
1,1,1-Trichloroethane	1	0.025	0.0	0.0252	101	0.0243	97.4	58.7 - 134	3.4	20		
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0268	107	0.0254	102	56 - 132	5.42	22.2		
1,1,2-Trichloroethane	1	0.025	0.0	0.0264	106	0.0247	99	66.3 - 125	6.51	20		
1,1-Dichloroethane	1	0.025	0.0	0.0251	100	0.0242	96.7	58.5 - 132	3.74	20		
1,1-Dichloroethene	1	0.025	0.0	0.0202	80.7	0.0192	76.9	51.1 - 140	4.92	20.2		
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0228	91.2	0.0218	87.3	57.4 - 137	4.42	20		
1,2-Dibromoethane	1	0.025	0.0	0.0231	92.5	0.0223	89.4	67.1 - 125	3.41	20		
1,2-Dichloroethane	1	0.025	0.0	0.0232	92.7	0.0218	87.1	60 - 126	6.18	20		
1,2-Dichloropropane	1	0.025	0.0	0.0251	101	0.0244	97.5	64.2 - 123	3.11	20		
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0242	96.8	0.0230	92	63.6 - 132	5.05	20.5		
2-Butanone (MEK)	1	0.125	0.0	0.1456	116	0.1377	110	22.4 - 138	5.53	27		
2-Hexanone	1	0.125	0.0	0.1381	110	0.1267	101	43.3 - 137	8.59	25.5		
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1307	105	0.1256	101	60.8 - 140	3.96	25.1		
Acetone	1	0.125	0.0021	0.1136	89.2	0.1097	86.1	10 - 130	3.52	27.9		
Benzene	1	0.025	0.0	0.0240	96.1	0.0231	92.4	54.3 - 133	3.9	20		
Bromodichloromethane	1	0.025	0.0	0.0228	91.1	0.0224	89.5	63.9 - 121	1.74	20		
Bromoform	1	0.025	0.0	0.0228	91	0.0217	86.9	59.5 - 134	4.7	20.5		
Bromomethane	1	0.025	0.0	0.0320	128	0.0311	124	41.7 - 155	2.88	21.9		
Carbon disulfide	1	0.025	0.0	0.0145	58	0.0139	55.4	43.3 - 149	4.55	20.3		
Carbon tetrachloride	1	0.025	0.0	0.0228	91.3	0.0220	88	55.7 - 134	3.74	20		
Chlorobenzene	1	0.025	0.0	0.0237	94.9	0.0229	91.5	67 - 125	3.7	20		
Chlorodibromomethane	1	0.025	0.0	0.0234	93.7	0.0225	90	64.3 - 125	4.03	20.8		
Chloroethane	1	0.025	0.0	0.0232	92.9	0.0226	90.4	51.5 - 136	2.69	40		
Chloroform	1	0.025	0.0	0.0250	100	0.0241	96.3	63 - 129	3.95	20		
Chloromethane	1	0.025	0.0	0.0172	68.8	0.0166	66.4	42.4 - 135	3.5	20		
cis-1,2-Dichloroethene	1	0.025	0.0	0.0228	91.1	0.0221	88.4	59.2 - 129	2.97	20		
cis-1,3-Dichloropropene	1	0.025	0.0	0.0230	92.1	0.0226	90.3	66.4 - 125	1.99	20		
Ethylbenzene	1	0.025	0.0	0.0234	93.5	0.0221	88.4	61.4 - 133	5.57	20		
Isopropylbenzene	1	0.025	0.0	0.0240	96	0.0227	90.9	66.8 - 141	5.42	20		
m&p-Xylenes	1	0.05	0.0	0.0460	92	0.0437	87.4	61.7 - 133	5.21	20		
Methyl tert-butyl ether	1	0.025	0.0	0.0260	104	0.0242	96.7	57.7 - 134	7.32	20		
Methylene Chloride	1	0.025	0.0	0.0234	93.7	0.0224	89.5	58.1 - 122	4.56	20		
Naphthalene	1	0.025	0.0	0.0256	102	0.0252	101	58 - 135	1.72	25.5		
n-Butylbenzene	1	0.025	0.0	0.0261	104	0.0254	102	62.7 - 140	2.59	20.3		
n-Propylbenzene	1	0.025	0.0	0.0242	96.9	0.0230	92	65.9 - 131	5.23	20		



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Matrix Spike / Matrix Spike Duplicate

L733743-158

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
o-Xylene	1	0.025	0.0	0.0242	96.8	0.0226	90.2	63.3 - 130	7.01	20		
p-Isopropyltoluene	1	0.025	0.0	0.0242	96.8	0.0231	92.3	63.2 - 139	4.82	20.4		
sec-Butylbenzene	1	0.025	0.0	0.0248	99.1	0.0236	94.5	62.2 - 136	4.76	20.3		
Styrene	1	0.025	0.0	0.0232	92.7	0.0225	90.2	66.8 - 133	2.79	20		
Tetrachloroethene	1	0.025	0.0	0.0215	85.8	0.0207	82.7	53 - 139	3.72	20		
Toluene	1	0.025	0.0	0.0221	88.2	0.0217	86.6	61.4 - 130	1.82	20		
trans-1,2-Dichloroethene	1	0.025	0.0	0.0210	83.8	0.0202	80.8	56.5 - 129	3.65	20		
trans-1,3-Dichloropropene	1	0.025	0.0	0.0217	86.7	0.0223	89.1	64.1 - 128	2.78	20		
Trichloroethene	1	0.025	0.0	0.0221	88.6	0.0219	87.5	44.1 - 149	1.16	20		
Vinyl chloride	1	0.025	0.0	0.0190	75.9	0.0185	73.8	47.8 - 137	2.73	20		
Xylenes, Total	1	0.075	0.0	0.0702	93.6	0.0662	88.3	63.3 - 131	5.83	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Internal Standard Response and Retention Time Summary

File ID: 1118_02
Analyzed: 11/18/14 093300

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	353813	8.21	741049	4.67	127022	5.83	406943	4.33
Upper Limit	708000	8.71	1480000	5.17	254000	6.33	814000	4.83
Lower Limit	177000	7.71	371000	4.17	63500	5.33	203000	3.83
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-16	312467	8.22	756219	4.67	120093	5.83	403047	4.34
L733743-17	306742	8.22	759637	4.67	120953	5.83	390356	4.33
L733743-18	304002	8.22	749766	4.67	119735	5.83	393872	4.34
L733743-19	299516	8.22	769402	4.67	120802	5.83	398290	4.34
L733743-20	299127	8.22	737003	4.67	116393	5.83	376962	4.34
L733743-01	300678	8.22	740259	4.67	119685	5.83	380157	4.34
L733743-02	299843	8.22	749033	4.67	120913	5.83	394355	4.34
L733743-03	303670	8.22	756898	4.67	123492	5.83	391784	4.34
L733743-04	303333	8.22	750730	4.67	120515	5.83	388704	4.34
L733743-05	305869	8.22	770638	4.67	122217	5.83	393226	4.34
MSD WG754786	359692	8.21	746292	4.67	130189	5.83	406736	4.33
MS WG754786	329205	8.22	693833	4.67	119336	5.83	382246	4.34
LCSD WG754786	342111	8.21	725955	4.67	121231	5.83	395550	4.33
LCS WG754786	352046	8.22	746679	4.67	125768	5.83	414703	4.34
BLANK WG754786	306059	8.22	692735	4.67	108988	5.83	365986	4.34

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Internal Standard Response and Retention Time Summary

File ID: 1118_31
Analyzed: 11/18/14 191600

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	352396	8.21	828935	4.67	136452	5.83	455349	4.34
Upper Limit	705000	8.71	1660000	5.17	273000	6.33	911000	4.84
Lower Limit	176000	7.71	414000	4.17	68200	5.33	228000	3.84
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-21	313004	8.22	783702	4.67	122965	5.83	406662	4.34
MSD WG754787	364010	8.21	852505	4.67	138071	5.83	450081	4.33
MS WG754787	374476	8.22	848313	4.67	142019	5.83	458777	4.34
LCSD WG754787	350806	8.21	791162	4.67	131521	5.83	430595	4.34
LCS WG754787	354039	8.22	775571	4.67	126659	5.83	432156	4.34
BLANK WG754787	315720	8.22	807497	4.67	127212	5.83	412152	4.34

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754909
Analysis Date:	11/21/2014 11:52:00 AM	Analyst:	644
Instrument ID:	VOCMS20		
Sample Numbers:	L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44		

Internal Standard Response and Retention Time Summary

File ID: 1121_02
Analyzed: 11/21/14 071400

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	190836	8.22	413536	4.67	68737	5.84	238940	4.34
Upper Limit	382000	8.72	827000	5.17	137000	6.34	478000	4.84
Lower Limit	95400	7.72	207000	4.17	34400	5.34	119000	3.84
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-25	176122	8.22	391196	4.67	64031	5.84	212156	4.34
L733743-29	193475	8.22	408713	4.67	67790	5.84	220787	4.34
L733743-30	189373	8.22	397437	4.67	66833	5.84	216954	4.34
L733743-31	191328	8.22	409802	4.67	68904	5.84	222591	4.34
L733743-32	175038	8.22	372218	4.67	62255	5.84	199359	4.34
L733743-33	189881	8.22	399274	4.67	67446	5.84	216820	4.34
L733743-34	165464	8.22	333936	4.67	58383	5.84	181893	4.34
L733743-35	181406	8.22	392905	4.67	64624	5.84	213673	4.34
L733743-36	185556	8.22	402157	4.67	66172	5.84	219276	4.34
L733743-37	181099	8.22	394615	4.67	62995	5.84	213188	4.34
L733743-38	200639	8.22	430077	4.67	71123	5.84	230764	4.34
L733743-39	180244	8.22	380210	4.67	63418	5.84	208170	4.34
L733743-40	200939	8.22	432514	4.67	70344	5.84	235035	4.34
L733743-41	186189	8.22	414042	4.67	66996	5.84	224313	4.34
L733743-42	190298	8.22	412240	4.67	66201	5.84	222714	4.34
L733743-44	186643	8.22	407431	4.67	66872	5.84	222056	4.34
MSD WG754909	192499	8.22	403827	4.67	66061	5.84	226858	4.34
MS WG754909	181888	8.22	380998	4.67	65597	5.84	211292	4.34
LCSD WG754909	192837	8.22	413181	4.67	69508	5.84	231999	4.34
LCS WG754909	190509	8.22	410042	4.67	64952	5.84	229262	4.34
BLANK WG754909	174952	8.22	400983	4.67	64074	5.84	214792	4.34

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754914
Analysis Date:	11/17/2014 2:20:00 AM	Analyst:	644
Instrument ID:	VOCMS14		
Sample Numbers:	L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65		

Internal Standard Response and Retention Time Summary

File ID: 1116_34
Analyzed: 11/16/14 215200

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	195956	8.35	511217	4.79	67971	5.96	312653	4.45
Upper Limit	392000	8.85	1020000	5.29	136000	6.46	625000	4.95
Lower Limit	98000	7.85	256000	4.29	34000	5.46	156000	3.95
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-64	195342	8.34	510033	4.79	60807	5.95	293574	4.45
L733743-65	210979	8.34	521932	4.79	64960	5.95	303944	4.45
L733743-45	217825	8.34	551302	4.79	69515	5.95	313096	4.45
L733743-46	205910	8.34	535021	4.79	68203	5.95	300864	4.45
L733743-47	227690	8.34	608962	4.79	72139	5.95	341440	4.45
L733743-48	262840	8.34	671132	4.79	81906	5.95	384552	4.45
L733743-49	276337	8.34	747023	4.79	93949	5.95	421637	4.45
L733743-50	255042	8.34	671405	4.78	80516	5.95	382470	4.45
L733743-51	246861	8.34	651468	4.78	80139	5.95	369127	4.45
L733743-52	260154	8.34	623816	4.79	76194	5.95	344187	4.45
L733743-53	246701	8.34	637940	4.79	76834	5.95	342028	4.45
L733743-54	255265	8.34	646322	4.79	79168	5.95	371305	4.45
L733743-55	266670	8.34	676776	4.79	84464	5.95	388913	4.45
L733743-57	255502	8.34	654290	4.78	81397	5.95	376217	4.45
L733743-58	253915	8.34	651431	4.78	80865	5.95	361455	4.45
L733743-59	255891	8.34	634375	4.78	86073	5.95	363835	4.45
L733743-60	238312	8.34	598709	4.79	73327	5.95	352789	4.45
L733743-61	256207	8.34	664186	4.78	80694	5.95	383329	4.45
L733743-62	277705	8.34	711114	4.78	89010	5.95	407043	4.45
L733743-63	264829	8.34	672775	4.79	79067	5.95	376375	4.45
MSD WG754914	215961	8.34	519121	4.79	65422	5.95	302854	4.45
MS WG754914	238217	8.35	557693	4.79	75899	5.95	332673	4.45
LCSD WG754914	208711	8.34	547626	4.79	66781	5.95	317927	4.45
LCS WG754914	227040	8.34	586049	4.79	77408	5.96	353972	4.45
BLANK WG754914	202007	8.34	527455	4.79	63780	5.95	312076	4.45

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754915
Analysis Date:	11/19/2014 3:01:00 PM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86		

Internal Standard Response and Retention Time Summary

File ID: 1119_01
Analyzed: 11/19/14 091200

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	405237	7.65	914568	4.11	132891	5.25	521212	3.79
Upper Limit	810000	8.15	1830000	4.61	266000	5.75	1040000	4.29
Lower Limit	203000	7.15	457000	3.61	66400	4.75	261000	3.29
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-76	365960	7.66	803171	4.11	119415	5.26	467752	3.79
L733743-67	346797	7.66	746136	4.11	113053	5.26	434925	3.80
L733743-68	368903	7.66	797300	4.12	121003	5.26	462319	3.80
L733743-75	331244	7.66	711077	4.11	109787	5.26	425526	3.79
L733743-77	333502	7.66	724360	4.11	110238	5.26	428656	3.80
L733743-78	362471	7.66	772643	4.11	118246	5.26	463222	3.80
L733743-79	324186	7.66	708963	4.11	106104	5.25	425627	3.79
L733743-80	315825	7.66	691269	4.11	102013	5.26	417352	3.79
L733743-82	328298	7.66	708215	4.11	107606	5.25	427527	3.79
L733743-83	311500	7.66	685685	4.11	101305	5.26	415228	3.79
L733743-84	320086	7.66	697409	4.11	102090	5.26	420843	3.79
L733743-85	318629	7.66	682571	4.11	100847	5.26	414046	3.79
L733743-86	334075	7.66	727428	4.11	110130	5.26	431705	3.79
MSD WG754915	362703	7.66	762846	4.11	113476	5.26	438120	3.79
MS WG754915	379199	7.66	808760	4.11	121515	5.26	464148	3.79
LCSD WG754915	422422	7.66	913968	4.11	134469	5.25	521373	3.79
LCS WG754915	370833	7.66	792794	4.11	118779	5.25	456412	3.79
BLANK WG754915	353256	7.66	773569	4.11	115287	5.26	452317	3.80

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754917
Analysis Date:	11/19/2014 3:06:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125		

Internal Standard Response and Retention Time Summary

File ID: 1119_03
Analyzed: 11/19/14 100800

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	362031	8.28	773243	4.71	122288	5.89	470350	4.38
Upper Limit	724000	8.78	1550000	5.21	245000	6.39	941000	4.88
Lower Limit	181000	7.78	387000	4.21	61100	5.39	235000	3.88
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-115	364770	8.28	755312	4.71	124407	5.89	462428	4.38
L733743-106 50X	378357	8.28	783629	4.71	123481	5.89	486728	4.38
L733743-108	378411	8.28	783456	4.71	126851	5.89	488396	4.38
L733743-109 50X	390778	8.28	799890	4.71	128776	5.89	502487	4.38
L733743-111 250X	386247	8.28	800737	4.71	127341	5.89	498215	4.38
L733743-112 10X	383000	8.28	807748	4.71	125227	5.89	498574	4.38
L733743-114 10X	387755	8.28	795274	4.71	128588	5.89	511019	4.38
L733743-116	384039	8.28	802492	4.71	130460	5.89	486850	4.38
L733743-117	391002	8.28	786679	4.71	129856	5.89	490554	4.38
L733743-118	385313	8.28	778593	4.71	126642	5.89	521685	4.38
L733743-119	389759	8.28	811629	4.71	131995	5.89	507273	4.38
L733743-120	397860	8.28	822239	4.71	132655	5.89	506153	4.38
L733743-121	389929	8.28	809992	4.71	130586	5.89	499890	4.38
L733743-122	388406	8.28	800375	4.71	128600	5.89	490441	4.38
L733743-123	392827	8.28	810901	4.71	129266	5.89	502197	4.38
L733743-124	394466	8.28	797975	4.71	125734	5.89	491605	4.38
L733743-125	392050	8.28	804812	4.71	123283	5.89	496125	4.38
L733743-113	386248	8.28	800617	4.71	129603	5.89	487542	4.38
L733743-107 10X	382125	8.28	788544	4.71	124286	5.89	502757	4.38
MSD WG754917	371047	8.28	783380	4.71	126352	5.89	479269	4.38
MS WG754917	370749	8.28	796702	4.71	127661	5.89	487107	4.38
LCSD WG754917	361733	8.28	766017	4.71	117847	5.89	470281	4.38
LCS WG754917	359390	8.28	777225	4.71	121674	5.89	471566	4.38
BLANK WG754917	368449	8.28	785515	4.71	122586	5.89	489281	4.38

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754918
Analysis Date:	11/20/2014 5:53:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141		

Internal Standard Response and Retention Time Summary

File ID: 1120_02
Analyzed: 11/20/14 024200

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	361217	8.22	845531	4.67	142877	5.83	465058	4.34
Upper Limit	722000	8.72	1690000	5.17	286000	6.33	930000	4.84
Lower Limit	181000	7.72	423000	4.17	71400	5.33	233000	3.84
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-126	348685	8.22	838778	4.67	129114	5.83	444992	4.34
L733743-127	320975	8.22	783335	4.67	125752	5.83	402576	4.34
L733743-128	353605	8.22	871639	4.67	136924	5.83	423906	4.33
L733743-129	334762	8.22	834719	4.67	126041	5.83	449245	4.34
L733743-130	318373	8.22	788893	4.67	123688	5.83	405343	4.34
L733743-131	330888	8.22	809796	4.67	123515	5.83	444707	4.34
L733743-132	325037	8.22	800043	4.67	126031	5.83	414604	4.34
L733743-133	321763	8.22	768644	4.67	119632	5.83	401516	4.34
L733743-134	312315	8.22	740154	4.67	118884	5.83	382997	4.34
L733743-135	320795	8.22	797313	4.67	123093	5.83	437768	4.33
L733743-136	324808	8.22	788966	4.67	123958	5.83	415912	4.34
L733743-137	322443	8.22	778192	4.67	117839	5.83	432191	4.34
L733743-138	337166	8.22	810599	4.67	124309	5.83	443682	4.34
L733743-139	336201	8.22	832223	4.67	126039	5.83	445912	4.34
L733743-140	337694	8.22	799291	4.67	125599	5.83	439738	4.34
L733743-141	319814	8.22	815842	4.67	128339	5.83	442609	4.34
MSD WG754918	362278	8.22	845962	4.67	138527	5.83	449136	4.34
MS WG754918	362224	8.22	835903	4.67	138907	5.83	452125	4.34
LCSD WG754918	353085	8.22	809146	4.67	131986	5.83	435708	4.34
LCS WG754918	365328	8.22	845275	4.67	141294	5.83	457267	4.34
BLANK WG754918	320773	8.22	777886	4.67	120647	5.83	407401	4.34

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754919
Analysis Date:	11/21/2014 10:42:00 PM	Analyst:	644
Instrument ID:	VOCMS13		
Sample Numbers:	L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162		

Internal Standard Response and Retention Time Summary

File ID: 1121_03
Analyzed: 11/21/14 135200

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	358492	8.14	981999	4.63	125873	5.78	620940	4.30
Upper Limit	717000	8.64	1960000	5.13	252000	6.28	1240000	4.80
Lower Limit	179000	7.64	491000	4.13	62900	5.28	310000	3.80
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-161	491615	8.14	1007550	4.62	145065	5.77	613845	4.30
L733743-162	402897	8.14	953924	4.63	132992	5.78	583528	4.30
L733743-156	364278	8.14	931851	4.63	120400	5.78	607648	4.30
L733743-146	343124	8.14	937757	4.63	114525	5.78	601430	4.30
L733743-147	324123	8.14	863533	4.63	108079	5.78	550473	4.30
L733743-149	313799	8.14	842519	4.63	102275	5.78	538049	4.30
L733743-151	317849	8.14	873285	4.63	105436	5.78	555295	4.30
L733743-152	314476	8.14	857929	4.63	101857	5.78	552240	4.30
L733743-153	334362	8.14	897830	4.63	111900	5.78	563097	4.30
L733743-154	387226	8.14	961625	4.63	126602	5.78	616380	4.30
L733743-155	335565	8.14	852442	4.63	108831	5.78	543781	4.30
L733743-157	332712	8.14	907782	4.63	110813	5.78	581929	4.30
MSD WG754919	343553	8.14	907937	4.63	114893	5.78	564313	4.30
MS WG754919	391331	8.14	1015649	4.62	135947	5.77	633572	4.30
LCSD WG754919	326897	8.14	868694	4.63	113046	5.78	547302	4.30
LCS WG754919	357866	8.14	928324	4.62	121519	5.78	581364	4.30
BLANK WG754919	349328	8.14	946376	4.63	118557	5.78	604742	4.30

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Internal Standard Response and Retention Time Summary

File ID: 1121_32
 Analyzed: 11/21/14 161500

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	395915	7.65	835462	4.10	122260	5.24	508385	3.79
Upper Limit	792000	8.15	1670000	4.60	245000	5.74	1020000	4.29
Lower Limit	198000	7.15	418000	3.60	61100	4.74	254000	3.29
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-06	326119	7.65	686390	4.10	106830	5.25	418696	3.78
L733743-07	324128	7.65	684178	4.10	104080	5.25	415033	3.79
L733743-08	324110	7.65	700305	4.10	104223	5.25	417211	3.78
L733743-09	324129	7.65	692766	4.10	103750	5.25	411041	3.78
L733743-10	311929	7.65	662463	4.10	99368	5.25	402813	3.78
L733743-11	338882	7.65	723034	4.10	109739	5.25	434348	3.78
L733743-12	330880	7.65	700706	4.10	107799	5.25	423802	3.78
MSD WG755340	351924	7.65	743638	4.10	109372	5.25	455716	3.78
MS WG755340	416685	7.65	870834	4.11	130172	5.25	551889	3.79
LCSD WG755340	363946	7.65	773844	4.10	115112	5.24	470880	3.78
LCS WG755340	367890	7.65	786034	4.10	114756	5.24	485702	3.78
BLANK WG755340	325135	7.65	708599	4.10	106439	5.25	431326	3.79

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755673
Analysis Date:	11/21/2014 8:51:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-106, -107, -110, -115		

Internal Standard Response and Retention Time Summary

File ID: 1121_02
Analyzed: 11/21/14 035100

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	374731	7.65	778321	4.10	112172	5.24	479076	3.78
Upper Limit	749000	8.15	1560000	4.60	224000	5.74	958000	4.28
Lower Limit	187000	7.15	389000	3.60	56100	4.74	240000	3.28
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-106 500X	374977	7.65	814978	4.10	117828	5.24	503010	3.78
L733743-107 200X	410585	7.65	878752	4.10	128012	5.24	543117	3.79
L733743-110 25X	342965	7.65	729537	4.10	107357	5.24	452084	3.78
L733743-115 10X	332897	7.65	722113	4.10	106930	5.24	448723	3.78
MSD WG755673	364951	7.65	759877	4.10	112350	5.24	476485	3.78
MS WG755673	374977	7.65	789781	4.10	117243	5.24	493064	3.78
LCSD WG755673	377933	7.65	774746	4.10	116708	5.24	487560	3.78
LCS WG755673	376478	7.65	779363	4.10	116110	5.25	478931	3.78
BLANK WG755673	352983	7.65	770030	4.10	111888	5.24	469297	3.78

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755736
Analysis Date:	11/20/2014 4:24:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145		

Internal Standard Response and Retention Time Summary

File ID: 1120_05
Analyzed: 11/20/14 081600

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	188423	8.10	432506	4.58	68944	5.73	230842	4.25
Upper Limit	377000	8.60	865000	5.08	138000	6.23	462000	4.75
Lower Limit	94200	7.60	216000	4.08	34500	5.23	115000	3.75
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-114	180935	8.10	413092	4.58	64204	5.73	227498	4.25
L733743-142	174099	8.10	400125	4.58	61325	5.73	204028	4.25
L733743-143	183378	8.10	419154	4.58	64872	5.73	216924	4.25
L733743-144	177087	8.10	422000	4.58	66082	5.73	219433	4.25
L733743-145	191977	8.10	451582	4.58	67868	5.73	254947	4.25
L733743-69	180596	8.10	424348	4.58	64710	5.73	229263	4.25
L733743-70	160435	8.10	379499	4.58	58820	5.73	213182	4.25
L733743-71	179768	8.10	419920	4.58	66674	5.73	236845	4.25
L733743-72	172399	8.10	410127	4.58	63823	5.73	223183	4.25
L733743-73	184714	8.10	439868	4.58	66996	5.73	236680	4.25
L733743-74	182121	8.10	420899	4.58	64728	5.73	229762	4.25
L733743-81	185584	8.10	437169	4.58	68114	5.73	243544	4.25
MSD WG755736	170404	8.10	418829	4.58	64403	5.73	225149	4.25
MSD WG755736	178149	8.10	405276	4.58	66546	5.73	213526	4.25
MS WG755736	165129	8.10	402058	4.58	62353	5.73	215876	4.25
MS WG755736	176124	8.10	425404	4.58	71408	5.73	221206	4.25
LCSD WG755736	182502	8.10	432734	4.58	70590	5.73	234815	4.25
LCSD WG755736	181596	8.10	442512	4.58	66688	5.73	240014	4.25
LCS WG755736	187476	8.10	430508	4.58	69570	5.73	230840	4.25
LCS WG755736	179782	8.10	417888	4.58	64182	5.73	227501	4.25
BLANK WG755736	185850	8.10	441230	4.58	68502	5.73	251525	4.25

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Internal Standard Response and Retention Time Summary

File ID: 1121_02
Analyzed: 11/21/14 074700

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	234115	7.78	488750	4.22	82995	5.37	278941	3.90
Upper Limit	468000	8.28	978000	4.72	166000	5.87	558000	4.40
Lower Limit	117000	7.28	244000	3.72	41500	4.87	139000	3.40
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-128	234943	7.78	483521	4.22	80707	5.37	277969	3.90
L733743-135	240726	7.78	493609	4.22	83397	5.37	278413	3.90
L733743-137	238487	7.78	492221	4.22	83113	5.37	280907	3.90
L733743-138	226236	7.78	467005	4.22	78133	5.37	264853	3.90
L733743-139	227141	7.78	458393	4.22	77311	5.37	263534	3.90
L733743-142	219105	7.78	447094	4.22	75617	5.37	260469	3.90
L733743-143	252992	7.78	521802	4.22	87014	5.37	300560	3.90
L733743-144	222900	7.78	450330	4.22	75721	5.37	259084	3.90
MSD WG755901	222004	7.78	446283	4.22	80774	5.37	255845	3.90
MS WG755901	220260	7.78	475275	4.22	86700	5.37	268821	3.90
LCSD WG755901	239544	7.78	501977	4.22	84757	5.37	284006	3.90
LCS WG755901	201055	7.78	416835	4.22	70733	5.37	237738	3.90
BLANK WG755901	245626	7.78	500262	4.22	84836	5.37	283689	3.90

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Internal Standard Response and Retention Time Summary

File ID: 1122_31
Analyzed: 11/22/14 120300

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	367062	8.28	779992	4.71	122497	5.89	481663	4.38
Upper Limit	734000	8.78	1560000	5.21	245000	6.39	963000	4.88
Lower Limit	184000	7.78	390000	4.21	61200	5.39	241000	3.88
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-13	375520	8.28	795800	4.71	122598	5.89	500854	4.38
L733743-14	370274	8.28	794654	4.71	121261	5.89	505078	4.38
L733743-15	369046	8.28	787990	4.71	119397	5.89	498505	4.38
L733743-26	367014	8.28	788117	4.71	121661	5.89	498659	4.38
L733743-27	365257	8.28	788710	4.71	123177	5.89	497889	4.38
L733743-28	347060	8.28	756081	4.71	116851	5.89	476977	4.38
MSD WG756231	337192	8.28	744494	4.71	116175	5.89	464784	4.38
MS WG756231	345019	8.28	770707	4.71	117998	5.89	481988	4.38
LCSD WG756231	362125	8.28	787711	4.71	118367	5.89	485521	4.38
LCS WG756231	363675	8.28	782612	4.71	120149	5.89	495967	4.38
BLANK WG756231	371259	8.28	802836	4.71	121709	5.89	503515	4.38

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Internal Standard Response and Retention Time Summary

File ID: 1123_32
Analyzed: 11/23/14 123200

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	288397	8.05	745474	4.52	129284	5.67	371670	4.19
Upper Limit	577000	8.55	1490000	5.02	259000	6.17	743000	4.69
Lower Limit	144000	7.55	373000	4.02	64600	5.17	186000	3.69
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-97	285706	8.05	746609	4.52	134797	5.67	388337	4.19
MSD WG756371	289620	8.05	752346	4.52	132469	5.67	376719	4.19
MS WG756371	286038	8.05	745587	4.52	129763	5.67	378038	4.19
LCSD WG756371	295785	8.05	757240	4.52	133528	5.67	388788	4.19
LCS WG756371	298350	8.05	762257	4.52	133152	5.67	385958	4.19
BLANK WG756371	279093	8.05	754185	4.52	131635	5.67	390985	4.19

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Internal Standard Response and Retention Time Summary

File ID: 1123_37
Analyzed: 11/23/14 173400

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	187428	8.10	441757	4.58	69040	5.73	238578	4.25
Upper Limit	375000	8.60	884000	5.08	138000	6.23	477000	4.75
Lower Limit	93700	7.60	221000	4.08	34500	5.23	119000	3.75
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-158	185733	8.10	444992	4.58	67574	5.73	245884	4.25
L733743-148	184521	8.10	431106	4.58	67278	5.73	240104	4.25
L733743-150	181238	8.10	436345	4.58	66744	5.73	244248	4.25
L733743-159	188013	8.10	439447	4.58	67982	5.73	244022	4.25
L733743-160	191965	8.10	446971	4.58	69391	5.73	247199	4.25
MSD WG756413	176532	8.10	430520	4.58	66713	5.73	235820	4.25
MS WG756413	176788	8.10	433210	4.58	65201	5.73	232266	4.25
LCSD WG756413	182699	8.10	440694	4.58	67225	5.73	238863	4.25
LCS WG756413	178907	8.10	430831	4.58	67640	5.73	231833	4.25
BLANK WG756413	190492	8.10	460249	4.58	69268	5.73	254215	4.25

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
			ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-01	VOCMS2	1118_15	0.0383	95.7	0.0397	99.4	0.0433	108		
L733743-02	VOCMS2	1118_16	0.0369	92.3	0.0394	98.5	0.0436	109		
L733743-03	VOCMS2	1118_17	0.0368	92.1	0.0398	99.6	0.0435	109		
L733743-04	VOCMS2	1118_18	0.0373	93.2	0.0397	99.2	0.0428	107		
L733743-05	VOCMS2	1118_19	0.0378	94.5	0.0401	100	0.0428	107		
L733743-16	VOCMS2	1118_10	0.0394	98.6	0.0392	98.0	0.0429	107		
L733743-17	VOCMS2	1118_11	0.0381	95.1	0.0395	98.7	0.0424	106		
L733743-18	VOCMS2	1118_12	0.0385	96.2	0.0391	97.6	0.0429	107		
L733743-19	VOCMS2	1118_13	0.0378	94.6	0.0385	96.1	0.0425	106		
L733743-20	VOCMS2	1118_14	0.0387	96.8	0.0398	99.4	0.0429	107		
BLANK WG754786	VOCMS2	1118_09-2	0.0409	102	0.0404	101	0.0420	105	0.0409	102
LCS WG754786	VOCMS2	1118_03-2	0.0384	96.0	0.0429	107	0.0420	105	0.0430	107
LCSD WG754786	VOCMS2	1118_04-2	0.0392	98.0	0.0438	110	0.0421	105	0.0422	106
MS WG754786	VOCMS2	1118_06-2	0.0384	96.0	0.0435	109	0.0421	105	0.0420	105
MSD WG754786	VOCMS2	1118_07-2	0.0381	95.2	0.0444	111	0.0420	105	0.0417	104

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
			ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-21	VOCMS2	1118_43	0.0380	95.0	0.0386	96.5	0.0420	105		
BLANK WG754787	VOCMS2	1118_38-2	0.0366	91.4	0.0393	98.2	0.0419	105	0.0387	96.6
LCS WG754787	VOCMS2	1118_32-2	0.0373	93.1	0.0421	105	0.0414	103	0.0406	101
LCSD WG754787	VOCMS2	1118_33-2	0.0372	93.0	0.0411	103	0.0414	103	0.0402	100
MS WG754787	VOCMS2	1118_35-2	0.0370	92.5	0.0419	105	0.0416	104	0.0397	99.2
MSD WG754787	VOCMS2	1118_36-2	0.0374	93.6	0.0416	104	0.0418	105	0.0397	99.2

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754909
Analysis Date:	11/21/2014 11:52:00 AM	Analyst:	644
Instrument ID:	VOCMS20		
Sample Numbers:	L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44		

Surrogate Summary

Laboratory	Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
				ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
	L733743-25	VOCMS20	1121_11	0.0362	90.5	0.0370	92.5	0.0403	101		
	L733743-29	VOCMS20	1121_14	0.0378	94.5	0.0374	93.5	0.0400	100		
	L733743-30	VOCMS20	1121_15	0.0374	93.6	0.0369	92.3	0.0403	101		
	L733743-31	VOCMS20	1121_16	0.0358	89.5	0.0370	92.6	0.0398	99.6		
	L733743-32	VOCMS20	1121_17	0.0366	91.5	0.0366	91.5	0.0403	101		
	L733743-33	VOCMS20	1121_18	0.0371	92.7	0.0371	92.8	0.0405	101		
	L733743-34	VOCMS20	1121_19	0.0370	92.5	0.0373	93.2	0.0408	102		
	L733743-35	VOCMS20	1121_20	0.0366	91.5	0.0362	90.5	0.0400	99.9		
	L733743-36	VOCMS20	1121_21	0.0365	91.3	0.0358	89.6	0.0399	99.8		
	L733743-37	VOCMS20	1121_22	0.0385	96.3	0.0357	89.2	0.0393	98.2		
	L733743-38	VOCMS20	1121_23	0.0374	93.6	0.0367	91.7	0.0400	100		
	L733743-39	VOCMS20	1121_24	0.0372	93.1	0.0365	91.2	0.0400	100		
	L733743-40	VOCMS20	1121_25	0.0374	93.4	0.0362	90.4	0.0400	99.9		
	L733743-41	VOCMS20	1121_26	0.0374	93.4	0.0366	91.4	0.0400	100		
	L733743-42	VOCMS20	1121_27	0.0383	95.9	0.0363	90.8	0.0396	99.1		
	L733743-43	VOCMS20	1121_28	0.0367	91.9	0.0374	93.5	0.0401	100		
	L733743-44	VOCMS20	1121_29	0.0367	91.7	0.0369	92.3	0.0401	100		
LCS	WG754909	VOCMS20	1121_03	0.0366	91.6	0.0348	87.0	0.0394	98.4	0.0411	103
LCSD	WG754909	VOCMS20	1121_04	0.0345	86.2	0.0349	87.3	0.0394	98.5	0.0421	105
MS	WG754909	VOCMS20	1121_05	0.0353	88.3	0.0362	90.4	0.0399	99.8	0.0410	102
MSD	WG754909	VOCMS20	1121_06	0.0373	93.3	0.0365	91.2	0.0407	102	0.0419	105
BLANK	WG754909	VOCMS20	1121_09	0.0358	89.4	0.0361	90.2	0.0396	99.0	0.0420	105

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754914
Analysis Date:	11/17/2014 2:20:00 AM	Analyst:	644
Instrument ID:	VOCMS14		
Sample Numbers:	L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65		

Surrogate Summary

Laboratory	Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
				ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
	L733743-45	VOCMS14	1116_45	0.0409	102	0.0425	106	0.0408	102		
	L733743-46	VOCMS14	1116_46	0.0390	97.4	0.0421	105	0.0393	98.2		
	L733743-47	VOCMS14	1116_47	0.0418	104	0.0420	105	0.0398	99.4		
	L733743-48	VOCMS14	1116_48	0.0416	104	0.0428	107	0.0400	100		
	L733743-49	VOCMS14	1116_49	0.0388	97.0	0.0403	101	0.0392	97.9		
	L733743-50	VOCMS14	1116_50	0.0411	103	0.0420	105	0.0389	97.4		
	L733743-51	VOCMS14	1116_51	0.0403	101	0.0428	107	0.0392	97.9		
	L733743-52	VOCMS14	1116_52	0.0421	105	0.0445	111	0.0382	95.6		
	L733743-53	VOCMS14	1116_53	0.0407	102	0.0443	111	0.0390	97.5		
	L733743-54	VOCMS14	1116_54	0.0407	102	0.0409	102	0.0396	99.0		
	L733743-55	VOCMS14	1116_55	0.0392	97.9	0.0406	102	0.0392	98.0		
	L733743-57	VOCMS14	1116_56	0.0398	99.4	0.0406	101	0.0396	99.0		
	L733743-58	VOCMS14	1116_57	0.0388	97.1	0.0426	107	0.0386	96.6		
	L733743-59	VOCMS14	1116_58	0.0382	95.5	0.0425	106	0.0404	101		
	L733743-60	VOCMS14	1116_59	0.0416	104	0.0407	102	0.0402	101		
	L733743-61	VOCMS14	1116_60	0.0403	101	0.0412	103	0.0398	99.4		
	L733743-62	VOCMS14	1116_61	0.0392	98.0	0.0428	107	0.0392	98.1		
	L733743-63	VOCMS14	1116_62	0.0418	104	0.0436	109	0.0389	97.3		
	L733743-64	VOCMS14	1116_43	0.0415	104	0.0405	101	0.0408	102		
	L733743-65	VOCMS14	1116_44	0.0409	102	0.0404	101	0.0420	105		
	LCS WG754914	VOCMS14	1116_36	0.0373	93.3	0.0404	101	0.0422	105	0.0404	101
	LCSD WG754914	VOCMS14	1116_37	0.0387	96.8	0.0401	100	0.0412	103	0.0402	100
	MS WG754914	VOCMS14	1116_38	0.0384	96.1	0.0423	106	0.0412	103	0.0393	98.4
	MSD WG754914	VOCMS14	1116_39	0.0411	103	0.0415	104	0.0403	101	0.0399	99.8
	BLANK WG754914	VOCMS14	1116_42	0.0410	103	0.0382	95.5	0.0410	102	0.0396	99.1

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754915
Analysis Date:	11/19/2014 3:01:00 PM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
			ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-67	VOCMS25	1119_11	0.0427	107	0.0416	104	0.0418	104		
L733743-68	VOCMS25	1119_12	0.0422	105	0.0410	103	0.0415	104		
L733743-75	VOCMS25	1119_19	0.0424	106	0.0411	103	0.0423	106		
L733743-76	VOCMS25	1119_10	0.0431	108	0.0415	104	0.0414	103		
L733743-77	VOCMS25	1119_20	0.0425	106	0.0412	103	0.0421	105		
L733743-78	VOCMS25	1119_21	0.0432	108	0.0402	100	0.0423	106		
L733743-79	VOCMS25	1119_22	0.0421	105	0.0409	102	0.0410	102		
L733743-80	VOCMS25	1119_23	0.0428	107	0.0409	102	0.0411	103		
L733743-82	VOCMS25	1119_25	0.0427	107	0.0397	99.2	0.0421	105		
L733743-83	VOCMS25	1119_26	0.0425	106	0.0398	99.5	0.0407	102		
L733743-84	VOCMS25	1119_27	0.0437	109	0.0401	100	0.0418	104		
L733743-85	VOCMS25	1119_28	0.0440	110	0.0398	99.4	0.0420	105		
L733743-86	VOCMS25	1119_29	0.0428	107	0.0396	99.0	0.0421	105		
LCS WG754915	VOCMS25	1119_03	0.0426	107	0.0412	103	0.0425	106	0.0435	109
LCSD WG754915	VOCMS25	1119_04	0.0427	107	0.0412	103	0.0414	104	0.0419	105
MS WG754915	VOCMS25	1119_06	0.0423	106	0.0415	104	0.0411	103	0.0426	106
MSD WG754915	VOCMS25	1119_07	0.0437	109	0.0411	103	0.0415	104	0.0428	107
BLANK WG754915	VOCMS25	1119_09	0.0427	107	0.0407	102	0.0419	105	0.0428	107

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754916
Analysis Date:	11/22/2014 3:10:00 AM	Analyst:	644
Instrument ID:	VOCMS7		
Sample Numbers:	L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
			ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-100	VOCMS7	1121_41	0.0408	102	0.0388	96.9	0.0407	102		
L733743-101	VOCMS7	1121_42	0.0410	102	0.0378	94.5	0.0402	101		
L733743-102	VOCMS7	1121_43	0.0409	102	0.0382	95.5	0.0400	100		
L733743-103	VOCMS7	1121_44	0.0419	105	0.0382	95.4	0.0399	99.8		
L733743-104	VOCMS7	1121_45	0.0405	101	0.0380	95.1	0.0404	101		
L733743-105	VOCMS7	1121_46	0.0405	101	0.0380	95.1	0.0401	100		
L733743-66	VOCMS7	1121_47	0.0409	102	0.0381	95.3	0.0404	101		
L733743-87	VOCMS7	1121_48	0.0419	105	0.0379	94.8	0.0400	100		
L733743-88	VOCMS7	1121_49	0.0409	102	0.0384	96.1	0.0403	101		
L733743-89	VOCMS7	1121_39	0.0413	103	0.0383	95.6	0.0399	99.6		
L733743-90	VOCMS7	1121_50	0.0410	103	0.0378	94.5	0.0412	103		
L733743-91	VOCMS7	1121_51	0.0415	104	0.0374	93.6	0.0401	100		
L733743-92	VOCMS7	1121_52	0.0406	101	0.0370	92.4	0.0407	102		
L733743-93	VOCMS7	1121_53	0.0410	103	0.0382	95.5	0.0406	101		
L733743-94	VOCMS7	1121_54	0.0416	104	0.0384	95.9	0.0401	100		
L733743-95	VOCMS7	1121_55	0.0418	104	0.0376	94.0	0.0398	99.6		
L733743-96	VOCMS7	1121_56	0.0417	104	0.0376	93.9	0.0397	99.3		
L733743-97	VOCMS7	1121_57	0.0409	102	0.0386	96.5	0.0408	102		
L733743-98	VOCMS7	1121_58	0.0415	104	0.0379	94.9	0.0410	103		
L733743-99	VOCMS7	1121_40	0.0409	102	0.0377	94.3	0.0403	101		
LCS WG754916	VOCMS7	1121_32	0.0411	103	0.0387	96.7	0.0406	101	0.0430	108
LCSD WG754916	VOCMS7	1121_33	0.0414	104	0.0379	94.7	0.0406	101	0.0429	107
MS WG754916	VOCMS7	1121_34	0.0407	102	0.0376	93.9	0.0409	102	0.0434	109
MSD WG754916	VOCMS7	1121_35	0.0408	102	0.0382	95.6	0.0404	101	0.0432	108
BLANK WG754916	VOCMS7	1121_38	0.0408	102	0.0380	95.0	0.0401	100	0.0436	109

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754917
Analysis Date:	11/19/2014 3:06:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125		

Surrogate Summary

Laboratory	Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
				ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
	L733743-106 50x	VOCMS30	1119_13	0.0450	113	0.0392	98.1	0.0421	105		
	L733743-107 10x	VOCMS30	1119_14	0.0447	112	0.0375	93.7	0.0414	104		
	L733743-108	VOCMS30	1119_15	0.0443	111	0.0394	98.4	0.0419	105		
	L733743-109 50x	VOCMS30	1119_16	0.0438	110	0.0384	95.9	0.0417	104		
	L733743-111 250x	VOCMS30	1119_18	0.0445	111	0.0391	97.8	0.0416	104		
	L733743-112 10x	VOCMS30	1119_19	0.0450	112	0.0391	97.7	0.0413	103		
	L733743-113	VOCMS30	1119_20	0.0443	111	0.0395	98.7	0.0422	105		
	L733743-114 10x	VOCMS30	1119_21	0.0442	111	0.0373	93.3	0.0422	106		
	L733743-115	VOCMS30	1119_12	0.0436	109	0.0387	96.6	0.0422	105		
	L733743-116	VOCMS30	1119_22	0.0435	109	0.0391	97.6	0.0413	103		
	L733743-117	VOCMS30	1119_23	0.0443	111	0.0395	98.8	0.0428	107		
	L733743-118	VOCMS30	1119_24	0.0448	112	0.0361	90.3	0.0419	105		
	L733743-119	VOCMS30	1119_25	0.0436	109	0.0392	98.1	0.0416	104		
	L733743-120	VOCMS30	1119_26	0.0440	110	0.0399	99.7	0.0416	104		
	L733743-121	VOCMS30	1119_27	0.0423	106	0.0392	98.0	0.0415	104		
	L733743-122	VOCMS30	1119_28	0.0437	109	0.0395	98.8	0.0410	102		
	L733743-123	VOCMS30	1119_29	0.0436	109	0.0395	98.6	0.0415	104		
	L733743-124	VOCMS30	1119_30	0.0449	112	0.0395	98.7	0.0416	104		
	L733743-125	VOCMS30	1119_31	0.0462	115	0.0391	97.9	0.0413	103		
	LCS WG754917	VOCMS30	1119_05	0.0443	111	0.0388	97.1	0.0415	104	0.0426	106
	LCSD WG754917	VOCMS30	1119_07	0.0454	113	0.0392	97.9	0.0416	104	0.0430	107
	MS WG754917	VOCMS30	1119_08	0.0437	109	0.0386	96.5	0.0414	104	0.0427	107
	MSD WG754917	VOCMS30	1119_09	0.0434	108	0.0389	97.4	0.0418	104	0.0424	106
	BLANK WG754917	VOCMS30	1119_11	0.0436	109	0.0388	97.1	0.0409	102	0.0428	107

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754918
Analysis Date:	11/20/2014 5:53:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
			ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-126	VOCMS2	1120_10	0.0398	99.6	0.0401	100	0.0413	103		
L733743-127	VOCMS2	1120_11	0.0372	93.1	0.0411	103	0.0418	105		
L733743-128	VOCMS2	1120_12	0.0379	94.9	0.0423	106	0.0411	103		
L733743-129	VOCMS2	1120_13	0.0393	98.2	0.0378	94.4	0.0411	103		
L733743-130	VOCMS2	1120_14	0.0377	94.2	0.0401	100	0.0415	104		
L733743-131	VOCMS2	1120_15	0.0388	96.9	0.0365	91.3	0.0419	105		
L733743-132	VOCMS2	1120_16	0.0379	94.7	0.0395	98.9	0.0417	104		
L733743-133	VOCMS2	1120_17	0.0388	97.1	0.0397	99.3	0.0417	104		
L733743-134	VOCMS2	1120_18	0.0381	95.3	0.0412	103	0.0418	104		
L733743-135	VOCMS2	1120_19	0.0384	96.1	0.0370	92.6	0.0417	104		
L733743-136	VOCMS2	1120_20	0.0378	94.4	0.0396	99.1	0.0415	104		
L733743-137	VOCMS2	1120_21	0.0395	98.9	0.0371	92.7	0.0412	103		
L733743-138	VOCMS2	1120_22	0.0394	98.5	0.0378	94.5	0.0413	103		
L733743-139	VOCMS2	1120_23	0.0394	98.5	0.0374	93.4	0.0415	104		
L733743-140	VOCMS2	1120_24	0.0383	95.8	0.0375	93.8	0.0419	105		
L733743-141	VOCMS2	1120_25	0.0373	93.3	0.0369	92.1	0.0425	106		
BLANK WG754918	VOCMS2	1120_09-2	0.0382	95.5	0.0396	99.0	0.0416	104	0.0393	98.1
LCS WG754918	VOCMS2	1120_03-2	0.0365	91.2	0.0417	104	0.0416	104	0.0399	99.8
LCSD WG754918	VOCMS2	1120_04-2	0.0366	91.5	0.0417	104	0.0410	103	0.0396	99.0
MS WG754918	VOCMS2	1120_06-2	0.0367	91.8	0.0411	103	0.0423	106	0.0407	102
MSD WG754918	VOCMS2	1120_07-2	0.0375	93.7	0.0421	105	0.0422	105	0.0394	98.4

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754919
Analysis Date:	11/21/2014 10:42:00 PM	Analyst:	644
Instrument ID:	VOCMS13		
Sample Numbers:	L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
			ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-146	VOCMS13	1121_17	0.0402	101	0.0386	96.5	0.0396	98.9		
L733743-147	VOCMS13	1121_18	0.0398	99.4	0.0395	98.8	0.0399	99.8		
L733743-149	VOCMS13	1121_20	0.0409	102	0.0391	97.8	0.0396	99.0		
L733743-151	VOCMS13	1121_22	0.0407	102	0.0391	97.6	0.0398	99.5		
L733743-152	VOCMS13	1121_23	0.0420	105	0.0381	95.2	0.0402	100		
L733743-153	VOCMS13	1121_24	0.0399	99.9	0.0402	100	0.0399	99.7		
L733743-154	VOCMS13	1121_25	0.0400	100	0.0411	103	0.0399	99.8		
L733743-155	VOCMS13	1121_26	0.0408	102	0.0418	104	0.0396	99.0		
L733743-156	VOCMS13	1121_16	0.0401	100	0.0405	101	0.0399	99.8		
L733743-157	VOCMS13	1121_27	0.0406	101	0.0387	96.7	0.0396	99.1		
L733743-161	VOCMS13	1121_11	0.0408	102	0.0466	116	0.0400	100		
L733743-162	VOCMS13	1121_12	0.0402	100	0.0455	114	0.0400	100		
LCS WG754919	VOCMS13	1121_04	0.0401	100	0.0416	104	0.0405	101	0.0405	101
LCSD WG754919	VOCMS13	1121_05	0.0387	96.7	0.0401	100	0.0402	101	0.0409	102
MS WG754919	VOCMS13	1121_06	0.0390	97.6	0.0424	106	0.0400	99.9	0.0395	98.8
MSD WG754919	VOCMS13	1121_07	0.0405	101	0.0411	103	0.0399	99.7	0.0411	103
BLANK WG754919	VOCMS13	1121_10	0.0401	100	0.0403	101	0.0402	101	0.0416	104

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
			ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-06	VOCMS25	1121_45	0.0429	107	0.0395	98.7	0.0424	106		
L733743-07	VOCMS25	1121_46	0.0432	108	0.0388	97.1	0.0420	105		
L733743-08	VOCMS25	1121_47	0.0437	109	0.0388	96.9	0.0416	104		
L733743-09	VOCMS25	1121_48	0.0432	108	0.0388	97.0	0.0415	104		
L733743-10	VOCMS25	1121_49	0.0430	107	0.0399	99.6	0.0420	105		
L733743-11	VOCMS25	1121_50	0.0429	107	0.0385	96.2	0.0417	104		
L733743-12	VOCMS25	1121_51	0.0433	108	0.0384	96.1	0.0422	106		
LCS WG755340	VOCMS25	1121_33	0.0427	107	0.0375	93.8	0.0418	104	0.0446	111
LCSD WG755340	VOCMS25	1121_34	0.0426	107	0.0369	92.3	0.0417	104	0.0441	110
MS WG755340	VOCMS25	1121_36	0.0431	108	0.0368	92.0	0.0421	105	0.0449	112
MSD WG755340	VOCMS25	1121_37	0.0435	109	0.0373	93.1	0.0408	102	0.0441	110
BLANK WG755340	VOCMS25	1121_39	0.0425	106	0.0379	94.8	0.0421	105	0.0440	110

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755673
Analysis Date:	11/21/2014 8:51:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-106, -107, -110, -115		

Surrogate Summary

Laboratory	Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
				ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
	L733743-106 500x	VOCMS25	1121_13	0.0438	109	0.0373	93.2	0.0413	103		
	L733743-107 200x	VOCMS25	1121_14	0.0435	109	0.0380	95.0	0.0416	104		
	L733743-110 25x	VOCMS25	1121_15	0.0438	109	0.0384	96.1	0.0410	103		
	L733743-115 10x	VOCMS25	1121_16	0.0424	106	0.0379	94.9	0.0414	103		
	BLANK WG755673	VOCMS25	1121_10-2	0.0434	109	0.0384	95.9	0.0407	102	0.0446	112
	LCS WG755673	VOCMS25	1121_04-2	0.0421	105	0.0379	94.7	0.0411	103	0.0452	113
	LCSD WG755673	VOCMS25	1121_06-2	0.0429	107	0.0366	91.5	0.0424	106	0.0445	111
	MS WG755673	VOCMS25	1121_07-2	0.0425	106	0.0378	94.6	0.0414	103	0.0451	113
	MSD WG755673	VOCMS25	1121_08-2	0.0428	107	0.0372	93.0	0.0412	103	0.0441	110

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755736
Analysis Date:	11/20/2014 4:24:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145		

Surrogate Summary

Laboratory	Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
				ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
	L733743-114	VOCMS6	1120_21	0.0379	94.7	0.0425	106	0.0407	102		
	L733743-142	VOCMS6	1120_25	0.0385	96.4	0.0453	113	0.0421	105		
	L733743-143	VOCMS6	1120_26	0.0382	95.4	0.0449	112	0.0416	104		
	L733743-144	VOCMS6	1120_27	0.0368	91.9	0.0445	111	0.0408	102		
	L733743-145	VOCMS6	1120_28	0.0390	97.6	0.0400	100	0.0407	102		
	L733743-69	VOCMS6	1120_29	0.0385	96.1	0.0400	100	0.0410	102		
	L733743-70	VOCMS6	1120_30	0.0372	92.9	0.0401	100	0.0410	103		
	L733743-71	VOCMS6	1120_31	0.0376	94.0	0.0401	100	0.0417	104		
	L733743-72	VOCMS6	1120_32	0.0382	95.5	0.0417	104	0.0413	103		
	L733743-73	VOCMS6	1120_33	0.0387	96.8	0.0416	104	0.0407	102		
	L733743-74	VOCMS6	1120_34	0.0385	96.2	0.0419	105	0.0408	102		
	L733743-81	VOCMS6	1120_35	0.0374	93.4	0.0409	102	0.0417	104		
LCS	WG755736	VOCMS6	1120_07	0.0381	95.3	0.0410	103	0.0403	101	0.0391	97.8
LCSD	WG755736	VOCMS6	1120_08	0.0366	91.4	0.0393	98.3	0.0406	102	0.0393	98.3
LCS	WG755736	VOCMS6	1120_09	0.0391	97.8	0.0420	105	0.0406	102	0.0405	101
LCSD	WG755736	VOCMS6	1120_10	0.0385	96.2	0.0403	101	0.0411	103	0.0397	99.1
MS	WG755736	VOCMS6	1120_12	0.0371	92.7	0.0426	106	0.0406	102	0.0394	98.5
MSD	WG755736	VOCMS6	1120_13	0.0382	95.4	0.0416	104	0.0410	102	0.0407	102
MS	WG755736	VOCMS6	1120_14	0.0353	88.1	0.0413	103	0.0402	101	0.0390	97.4
MSD	WG755736	VOCMS6	1120_15	0.0370	92.6	0.0417	104	0.0405	101	0.0396	98.9
BLANK	WG755736	VOCMS6	1120_17	0.0384	95.9	0.0395	98.7	0.0411	103	0.0400	100

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
			ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-128	VOCMS23	1121_18	0.0417	104	0.0383	95.7	0.0404	101		
L733743-135	VOCMS23	1121_19	0.0417	104	0.0388	97.0	0.0395	98.7		
L733743-137	VOCMS23	1121_20	0.0415	104	0.0381	95.3	0.0405	101		
L733743-138	VOCMS23	1121_21	0.0419	105	0.0379	94.8	0.0399	99.7		
L733743-139	VOCMS23	1121_22	0.0422	105	0.0391	97.8	0.0400	100		
L733743-142	VOCMS23	1121_23	0.0415	104	0.0380	95.0	0.0404	101		
L733743-143	VOCMS23	1121_24	0.0420	105	0.0373	93.1	0.0400	100		
L733743-144	VOCMS23	1121_25	0.0420	105	0.0394	98.5	0.0403	101		
LCS WG755901	VOCMS23	1121_03	0.0401	100	0.0387	96.7	0.0401	100	0.0439	110
LCSD WG755901	VOCMS23	1121_04	0.0411	103	0.0377	94.3	0.0403	101	0.0435	109
MS WG755901	VOCMS23	1121_07	0.0377	94.2	0.0374	93.4	0.0403	101	0.0433	108
MSD WG755901	VOCMS23	1121_08	0.0393	98.3	0.0385	96.1	0.0400	100	0.0443	111
BLANK WG755901	VOCMS23	1121_10	0.0415	104	0.0384	95.9	0.0399	99.7	0.0431	108

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
			ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-13	VOCMS30	1122_50	0.0436	109	0.0392	97.9	0.0409	102		
L733743-14	VOCMS30	1122_51	0.0436	109	0.0386	96.4	0.0411	103		
L733743-15	VOCMS30	1122_52	0.0441	110	0.0387	96.7	0.0410	102		
L733743-26	VOCMS30	1122_53	0.0420	105	0.0382	95.4	0.0410	103		
L733743-27	VOCMS30	1122_54	0.0419	105	0.0383	95.8	0.0406	101		
L733743-28	VOCMS30	1122_55	0.0431	108	0.0386	96.5	0.0405	101		
LCS WG756231	VOCMS30	1122_32	0.0431	108	0.0380	95.0	0.0408	102	0.0429	107
LCSD WG756231	VOCMS30	1122_33	0.0436	109	0.0384	96.0	0.0405	101	0.0427	107
MS WG756231	VOCMS30	1122_35	0.0420	105	0.0372	92.9	0.0409	102	0.0429	107
MSD WG756231	VOCMS30	1122_36	0.0418	105	0.0385	96.4	0.0413	103	0.0438	109
BLANK WG756231	VOCMS30	1122_38	0.0428	107	0.0388	97.0	0.0405	101	0.0423	106

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Surrogate Summary

Laboratory			BFB		DFM		TD8		TFT	
Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-97	VOCMS4	1123_45	0.0372	93.1	0.0435	109	0.0423	106		
LCS WG756371	VOCMS4	1123_33	0.0394	98.5	0.0441	110	0.0417	104	0.0384	95.9
LCSD WG756371	VOCMS4	1123_34	0.0388	96.9	0.0443	111	0.0418	105	0.0381	95.3
BLANK WG756371	VOCMS4	1123_37	0.0390	97.5	0.0432	108	0.0419	105	0.0388	97.1
MS WG756371	VOCMS4	1123_41	0.0392	97.9	0.0435	109	0.0419	105	0.0380	94.9
MSD WG756371	VOCMS4	1123_42	0.0384	96.1	0.0445	111	0.0420	105	0.0384	95.9

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
			ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-148	VOCMS6	1123_49	0.0381	95.3	0.0413	103	0.0408	102		
L733743-150	VOCMS6	1123_50	0.0389	97.2	0.0402	100	0.0413	103		
L733743-158	VOCMS6	1123_47	0.0371	92.7	0.0419	105	0.0398	99.6		
L733743-159	VOCMS6	1123_51	0.0385	96.3	0.0410	102	0.0411	103		
L733743-160	VOCMS6	1123_52	0.0385	96.4	0.0410	102	0.0407	102		
LCS WG756413	VOCMS6	1123_39	0.0373	93.2	0.0413	103	0.0413	103	0.0408	102
MS WG756413	VOCMS6	1123_42	0.0388	97.1	0.0410	102	0.0406	102	0.0409	102
MSD WG756413	VOCMS6	1123_43	0.0375	93.7	0.0398	99.5	0.0412	103	0.0406	102
LCSD WG756413	VOCMS6	1123_44	0.0374	93.5	0.0409	102	0.0408	102	0.0409	102
BLANK WG756413	VOCMS6	1123_46	0.0381	95.3	0.0404	101	0.0403	101	0.0404	101

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755117
Analysis Date:	11/19/2014 3:32:00 PM	Analyst:	546
Instrument ID:	SVGC31	Prep Date:	11/17/2014
Sample Numbers:	L733743-43, -44, -45, -48, -49, -50, -51, -52, -53, -57, -59, -60, -63, -66, -69, -70, -71, -72, -73, -40		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
C10-C28 Diesel Range		< 0.100	0.0228	
C28-C40 Oil Range		< 0.100	< 0.0118	
Extractable Petroleum Hydrocarbon		< 0.100	< 0.0330	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.6723	111	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.7428	116	70 - 130	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.6723	111	1.7428	116	70 - 130	4.13	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755118
Analysis Date:	11/19/2014 10:20:00 PM	Analyst:	546
Instrument ID:	SVGC31	Prep Date:	11/17/2014
Sample Numbers:	L733743-100, -74, -75, -77, -80, -81, -82, -83, -84, -85, -88, -91, -92, -98, -101, -102, -103, -105, -106, -108		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
C10-C28 Diesel Range		< 0.100	0.0419	
C28-C40 Oil Range		< 0.100	0.0209	
Extractable Petroleum Hydrocarbon		< 0.100	0.0498	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.6116	107	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.5672	104	70 - 130	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.6116	107	1.5672	104	70 - 130	2.79	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755119
Analysis Date:	11/19/2014 5:55:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/17/2014
Sample Numbers:	L733743-27, -28, -30, -31, -32, -33, -35, -36, -39, -37, -41, -42, -46, -47, -54, -55, -58, -61, -62, -67		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
C10-C28 Diesel Range		< 0.100	< 0.0222	
C28-C40 Oil Range		< 0.100	< 0.0118	
Extractable Petroleum Hydrocarbon		< 0.100	< 0.0330	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.7578	117	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.7339	116	70 - 130	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.7578	117	1.7339	116	70 - 130	1.37	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755121
Analysis Date:	11/18/2014 4:19:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/17/2014
Sample Numbers:	L733743-78, -79, -86, -87, -90, -93, -94, -95, -96, -97, -99, -104, -107, -111, -114, -117, -119, -120, -121, -125		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
C10-C28 Diesel Range		< 0.100	< 0.0222	
C28-C40 Oil Range		< 0.100	< 0.0118	
Extractable Petroleum Hydrocarbon		< 0.100	0.0385	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.4510	96.7	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.5157	101	70 - 130	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.4510	96.7	1.5157	101	70 - 130	4.37	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755122
Analysis Date:	11/18/2014 9:55:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/17/2014
Sample Numbers:	L733743-109, -110, -112, -113, -115, -116, -126, -127, -128, -129, -131, -132, -139, -141, -142, -143, -146, -147, -158		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
C10-C28 Diesel Range		< 0.100	< 0.0222	
C28-C40 Oil Range		< 0.100	< 0.0118	
Extractable Petroleum Hydrocarbon		< 0.100	< 0.0330	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.5580	104	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.4915	99.4	70 - 130	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Qual	% RPD	Control RPD Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.5580	104	1.4915	99.4	70 - 130	4.36		20		



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755177
Analysis Date:	11/19/2014 2:41:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/17/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
C10-C28 Diesel Range		0.120	0.120	B
C28-C40 Oil Range		0.880	0.880	B
Extractable Petroleum Hydrocarbon		1.09	1.09	B

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.6309	109	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.5551	104	70 - 130	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.6309	109	1.5551	104	70 - 130	4.75	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755478
Analysis Date:	11/20/2014 10:14:00 AM	Analyst:	546
Instrument ID:	SVGC31	Prep Date:	11/19/2014
Sample Numbers:	L733743-118, -122, -123, -124, -130, -133, -135, -136, -137, -138, -140, -144, -145, -148, -149, -150, -151, -152, -153		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
C10-C28 Diesel Range		< 0.100	< 0.0222	
C28-C40 Oil Range		< 0.100	< 0.0118	
Extractable Petroleum Hydrocarbon		< 0.100	< 0.0330	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.4476	96.5	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.5040	100	70 - 130	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.4476	96.5	1.5040	100	70 - 130	3.82	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755492
Analysis Date:	11/21/2014 3:13:00 PM	Analyst:	546
Instrument ID:	SVGC31	Prep Date:	11/19/2014
Sample Numbers:	L733743-155, -156, -157, -160		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
C10-C28 Diesel Range		< 0.100	< 0.0222	
C28-C40 Oil Range		< 0.100	< 0.0118	
Extractable Petroleum Hydrocarbon		< 0.100	< 0.0330	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.5454	103	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.5877	106	70 - 130	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.5454	103	1.5877	106	70 - 130	2.7	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755545
Analysis Date:	11/20/2014 4:34:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/19/2014
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -29, -34, -38		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
C10-C28 Diesel Range		< 0.100	< 0.0222	
C28-C40 Oil Range		< 0.100	< 0.0118	
Extractable Petroleum Hydrocarbon		< 0.100	< 0.0330	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.6645	111	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.7027	114	70 - 130	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.6645	111	1.7027	114	70 - 130	2.27	20	



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755117
Analysis Date:	11/19/2014 3:32:00 PM	Analyst:	546
Instrument ID:	SVGC31	Prep Date:	11/17/2014
Sample Numbers:	L733743-43, -44, -45, -48, -49, -50, -51, -52, -53, -57, -59, -60, -63, -66, -69, -70, -71, -72, -73, -40		

Surrogate Summary

			o-Terphenyl	
Laboratory				
Sample ID	Instrument	File ID	ppm	% Rec
L733743-40 40x	SVGC31	1121A_27	0.00	0.00 J7
L733743-43	SVGC31	1119_11	0.0260	130
L733743-44	SVGC31	1119_12	0.0262	131
L733743-45	SVGC31	1119_13	0.0271	136
L733743-48	SVGC31	1119_14	0.0252	126
L733743-49	SVGC31	1119_15	0.0254	127
L733743-50	SVGC31	1119_16	0.0261	131
L733743-51	SVGC31	1119_17	0.0272	136
L733743-52	SVGC31	1119_18	0.0267	133
L733743-53	SVGC31	1119_19	0.0284	142
L733743-57	SVGC31	1119_29	0.0273	136
L733743-59	SVGC31	1119_30	0.0262	131
L733743-60	SVGC31	1119_31	0.0279	139
L733743-63	SVGC31	1119_32	0.0279	140
L733743-66	SVGC31	1119_33	0.0269	135
L733743-69	SVGC31	1119_20	0.0260	130
L733743-70	SVGC31	1119_25	0.0298	149
L733743-71	SVGC31	1119_26	0.0225	113
L733743-72	SVGC31	1119_27	0.0204	102
L733743-73	SVGC31	1119_28	0.0273	136
BLANK WG755117	SVGC31	1119_05	0.0253	127
LCS WG755117	SVGC31	1119_06	0.0280	140
LCSD WG755117	SVGC31	1119_07	0.0286	143

o-Terphenyl --O-TERPHENYL

True Value: 0.02 ppm Limits: 50 - 150



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755118
Analysis Date:	11/19/2014 10:20:00 PM	Analyst:	546
Instrument ID:	SVGC31	Prep Date:	11/17/2014
Sample Numbers:	L733743-100, -74, -75, -77, -80, -81, -82, -83, -84, -85, -88, -91, -92, -98, -101, -102, -103, -105, -106, -108		

Surrogate Summary

			o-Terphenyl	
Laboratory				
Sample ID	Instrument	File ID	ppm	% Rec
L733743-100	SVGC31	1119_34	0.0228	114
L733743-101 5x	SVGC31	1120_39	0.0220	110
L733743-102 5x	SVGC31	1120_40	0.0228	114
L733743-103 5x	SVGC31	1120_41	0.0231	116
L733743-105 5x	SVGC31	1120_42	0.0288	144
L733743-106 10x	SVGC31	1120_43	0.0151	75.6
L733743-108 5x	SVGC31	1120_44	0.0239	119
L733743-74 5x	SVGC31	1120_45	0.0223	111
L733743-75 5x	SVGC31	1120_46	0.0250	125
L733743-77 5x	SVGC31	1120_47	0.0239	120
L733743-80 5x	SVGC31	1120_58	0.0231	115
L733743-81 20x	SVGC31	1120_60	0.0279	140
L733743-82 5x	SVGC31	1120_59	0.0238	119
L733743-83 10x	SVGC31	1120_61	0.0242	121
L733743-84	SVGC31	1120_62	0.0231	115
L733743-85 5x	SVGC31	1120_48	0.0255	127
L733743-88 5x	SVGC31	1120_54	0.111	553 J1
L733743-91 5x	SVGC31	1120_55	0.0230	115
L733743-92 5x	SVGC31	1120_56	0.0217	108
L733743-98 10x	SVGC31	1120_57	0.0163	81.5
BLANK WG755118	SVGC31	1119_08	0.0269	134
LCS WG755118	SVGC31	1119_09	0.0264	132
LCSD WG755118	SVGC31	1119_10	0.0259	129

o-Terphenyl --O-TERPHENYL

True Value: 0.02 ppm Limits: 50 - 150



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755119
Analysis Date:	11/19/2014 5:55:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/17/2014
Sample Numbers:	L733743-27, -28, -30, -31, -32, -33, -35, -36, -39, -37, -41, -42, -46, -47, -54, -55, -58, -61, -62, -67		

Surrogate Summary

			o-Terphenyl	
Laboratory				
Sample ID	Instrument	File ID	ppm	% Rec
L733743-27	SVGC27	1119_23	0.0243	121
L733743-28	SVGC27	1119_24	0.0230	115
L733743-30	SVGC27	1119_25	0.0249	124
L733743-31	SVGC27	1119_26	0.0225	113
L733743-32	SVGC27	1119_27	0.0235	118
L733743-33	SVGC27	1119_28	0.0239	120
L733743-35	SVGC27	1119_29	0.0255	128
L733743-36	SVGC27	1119_30	0.0283	142
L733743-37 20x	SVGC27	1121_22	0.00	0.00 J7
L733743-39 2x	SVGC27	1119_32	0.0253	127
L733743-41	SVGC27	1121_10	0.0233	117
L733743-42	SVGC27	1121_11	0.0240	120
L733743-46	SVGC27	1121_12	0.0240	120
L733743-47	SVGC27	1121_13	0.0235	117
L733743-54	SVGC27	1121_14	0.0237	118
L733743-55	SVGC27	1121_05	0.0243	121
L733743-58	SVGC27	1121_06	0.0239	120
L733743-61	SVGC27	1121_07	0.0247	123
L733743-62	SVGC27	1121_08	0.0248	124
L733743-67	SVGC27	1121_09	0.0248	124
BLANK WG755119	SVGC27	1119_09	0.0231	116
LCS WG755119	SVGC27	1119_10	0.0251	126
LCSD WG755119	SVGC27	1119_11	0.0237	119

o-Terphenyl --O-TERPHENYL

True Value: 0.02 ppm Limits: 50 - 150



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755121
Analysis Date:	11/18/2014 4:19:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/17/2014
Sample Numbers:	L733743-78, -79, -86, -87, -90, -93, -94, -95, -96, -97, -99, -104, -107, -111, -114, -117, -119, -120, -121, -125		

Surrogate Summary

			o-Terphenyl	
Laboratory				
Sample ID	Instrument	File ID	ppm	% Rec
L733743-104	SVGC27	1118_12	0.0228	114
L733743-107	SVGC27	1118_13	0.0228	114
L733743-111	SVGC27	1118_14	0.0217	108
L733743-114	SVGC27	1118_15	0.0232	116
L733743-117	SVGC27	1118_16	0.0230	115
L733743-119	SVGC27	1118_17	0.0220	110
L733743-120	SVGC27	1118_18	0.0228	114
L733743-121	SVGC27	1118_19	0.0227	114
L733743-125	SVGC27	1118_20	0.0219	109
L733743-78	SVGC27	1118_21	0.0226	113
L733743-79	SVGC27	1118_26	0.0227	113
L733743-86	SVGC27	1118_27	0.0225	113
L733743-87	SVGC27	1118_28	0.0234	117
L733743-90	SVGC27	1118_29	0.0246	123
L733743-93	SVGC27	1118_30	0.0228	114
L733743-94	SVGC27	1118_31	0.0232	116
L733743-95	SVGC27	1118_32	0.0229	115
L733743-96	SVGC27	1118_33	0.0228	114
L733743-97	SVGC27	1118_34	0.0217	109
L733743-99	SVGC27	1118_35	0.0247	124
BLANK WG755121	SVGC27	1118_06	0.0226	113
LCS WG755121	SVGC27	1118_07	0.0229	115
LCSD WG755121	SVGC27	1118_08	0.0226	113

o-Terphenyl --O-TERPHENYL

True Value: 0.02 ppm Limits: 50 - 150



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755122
Analysis Date:	11/18/2014 9:55:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/17/2014
Sample Numbers:	L733743-109, -110, -112, -113, -115, -116, -126, -127, -128, -129, -131, -132, -139, -141, -142, -143, -146, -147, -158		

Surrogate Summary

			o-Terphenyl	
Laboratory				
Sample ID	Instrument	File ID	ppm	% Rec
L733743-109	SVGC27	1118_40	0.0168	83.9
L733743-110	SVGC27	1118_41	0.0235	117
L733743-112	SVGC27	1118_42	0.0236	118
L733743-113	SVGC27	1118_43	0.0231	116
L733743-115	SVGC27	1118_44	0.0244	122
L733743-116	SVGC27	1118_45	0.0227	114
L733743-126	SVGC27	1118_46	0.0227	114
L733743-127	SVGC27	1118_47	0.0226	113
L733743-128	SVGC27	1118_48	0.0227	113
L733743-129	SVGC27	1118_49	0.0226	113
L733743-131	SVGC27	1118_54	0.0225	112
L733743-132	SVGC27	1118_55	0.0229	115
L733743-139 2x	SVGC27	1118_56	0.0145	72.5
L733743-141	SVGC27	1118_57	0.0225	112
L733743-142	SVGC27	1118_58	0.0234	117
L733743-143	SVGC27	1118_59	0.0210	105
L733743-146	SVGC27	1118_60	0.0235	118
L733743-147	SVGC27	1118_61	0.0237	118
L733743-158	SVGC27	1118_62	0.0235	118
L733743-159	SVGC27	1118_63	0.0233	117
BLANK WG755122	SVGC27	1118_09	0.0232	116
LCS WG755122	SVGC27	1118_10	0.0230	115
LCSD WG755122	SVGC27	1118_11	0.0225	112

o-Terphenyl --O-TERPHENYL

True Value: 0.02 ppm Limits: 50 - 150



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015				
Project No:	TX000836.0008.00004		Matrix:	Water - mg/L	
Project:	Navajo Refining Company - Artesia, NM		EPA ID:	TN00003	
Collection Date:	11/11/2014		Analytic Batch:	WG755177	
Analysis Date:	11/19/2014 2:41:00 PM		Analyst:	546	
Instrument ID:	SVGC27		Prep Date:	11/17/2014	
Sample Numbers:	L733743-01, -02, -03, -04, -05				

Surrogate Summary

			o-Terphenyl	
Laboratory				
Sample ID	Instrument	File ID	ppm	% Rec
L733743-01	SVGC27	1119_12	0.0236	118
L733743-02	SVGC27	1119_13	0.0230	115
L733743-03	SVGC27	1119_14	0.0229	114
L733743-04	SVGC27	1119_15	0.0231	116
L733743-05	SVGC27	1119_16	0.0220	110
BLANK WG755177	SVGC27	1119_05	0.0233	116
LCS WG755177	SVGC27	1119_06	0.0235	118
LCSD WG755177	SVGC27	1119_08	0.0232	116

o-Terphenyl --O-TERPHENYL

True Value: 0.02 ppm Limits: 50 - 150



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755478
Analysis Date:	11/20/2014 10:14:00 AM	Analyst:	546
Instrument ID:	SVGC31	Prep Date:	11/19/2014
Sample Numbers:	L733743-118, -122, -123, -124, -130, -133, -135, -136, -137, -138, -140, -144, -145, -148, -149, -150, -151, -152, -153		

Surrogate Summary

			o-Terphenyl	
Laboratory				
Sample ID	Instrument	File ID	ppm	% Rec
L733743-118	SVGC31	1120_08	0.0257	128
L733743-122	SVGC31	1120_09	0.0232	116
L733743-123	SVGC31	1120_10	0.0233	117
L733743-124	SVGC31	1120_11	0.0239	119
L733743-130	SVGC31	1120_12	0.0249	124
L733743-133	SVGC31	1120_13	0.0271	135
L733743-135	SVGC31	1120_14	0.0233	116
L733743-136	SVGC31	1120_15	0.0216	108
L733743-137 2x	SVGC31	1120_16	0.0237	118
L733743-138	SVGC31	1120_17	0.0215	107
L733743-140 5x	SVGC31	1120_24	0.0297	148
L733743-144 5x	SVGC31	1120_25	0.0162	81.2
L733743-145 5x	SVGC31	1120_26	0.0208	104
L733743-148 5x	SVGC31	1120_27	0.0209	104
L733743-149 5x	SVGC31	1120_28	0.0193	96.7
L733743-150 2x	SVGC31	1120_29	0.0140	69.9
L733743-151 5x	SVGC31	1120_30	0.0228	114
L733743-152 5x	SVGC31	1120_31	0.0210	105
L733743-153 5x	SVGC31	1120_32	0.0232	116
L733743-154 5x	SVGC31	1120_33	0.0235	117
BLANK WG755478	SVGC31	1120_05	0.0239	120
LCS WG755478	SVGC31	1120_06	0.0233	116
LCSD WG755478	SVGC31	1120_07	0.0230	115

o-Terphenyl --O-TERPHENYL

True Value: 0.02 ppm Limits: 50 - 150



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015				
Project No:	TX000836.0008.00004		Matrix:	Water - mg/L	
Project:	Navajo Refining Company - Artesia, NM		EPA ID:	TN00003	
Collection Date:	11/11/2014		Analytic Batch:	WG755492	
Analysis Date:	11/21/2014 3:13:00 PM		Analyst:	546	
Instrument ID:	SVGC31		Prep Date:	11/19/2014	
Sample Numbers:	L733743-155, -156, -157, -160				

Surrogate Summary

Laboratory	o-Terphenyl			
Sample ID	Instrument	File ID	ppm	% Rec
L733743-155	SVGC31	1121A_08	0.0250	125
L733743-156	SVGC31	1121A_09	0.0249	125
L733743-157	SVGC31	1121A_10	0.0261	130
L733743-160	SVGC31	1121A_11	0.0261	131
BLANK WG755492	SVGC31	1121A_05	0.0252	126
LCS WG755492	SVGC31	1121A_06	0.0249	125
LCSD WG755492	SVGC31	1121A_07	0.0249	124

o-Terphenyl --O-TERPHENYL

True Value: 0.02 ppm Limits: 50 - 150



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755545
Analysis Date:	11/20/2014 4:34:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/19/2014
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -29, -34, -38		

Surrogate Summary

			o-Terphenyl	
Laboratory				
Sample ID	Instrument	File ID	ppm	% Rec
L733743-06 1.17x	SVGC27	1120A_17	0.0264	113
L733743-07 1.17x	SVGC27	1120A_18	0.0279	119
L733743-08 1.11x	SVGC27	1120A_19	0.0265	119
L733743-09 1.11x	SVGC27	1120A_20	0.0268	121
L733743-10 1.11x	SVGC27	1120A_21	0.0254	114
L733743-11 1.11x	SVGC27	1120A_26	0.0261	118
L733743-12 1.11x	SVGC27	1120A_27	0.0260	117
L733743-13 1.11x	SVGC27	1120A_28	0.0279	126
L733743-14 1.11x	SVGC27	1120A_29	0.0274	123
L733743-15 1.11x	SVGC27	1120A_30	0.0269	121
L733743-25	SVGC27	1120A_31	0.0269	134
L733743-26	SVGC27	1120A_32	0.0198	99.1
L733743-29	SVGC27	1120A_33	0.0243	121
L733743-34 20x	SVGC27	1121_24	0.0236	118 J7
L733743-38	SVGC27	1120A_35	0.0246	123
BLANK WG755545	SVGC27	1120A_06	0.0255	127
LCS WG755545	SVGC27	1120A_07	0.0235	117
LCSD WG755545	SVGC27	1120A_08	0.0248	124

o-Terphenyl --O-TERPHENYL

True Value: 0.02 ppm Limits: 50 - 150



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754898
Analysis Date:	11/18/2014 9:10:00 AM	Analyst:	280
Instrument ID:	BNAMS4, BNAMS1	Prep Date:	11/15/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1-Methylnaphthalene	90-12-0	< 1.00	< 0.330	
2-Methylnaphthalene	91-57-6	< 1.00	< 0.311	
Benzo(a)pyrene	50-32-8	< 1.00	< 0.340	
Naphthalene	91-20-3	< 1.00	< 0.372	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754905
Analysis Date:	11/18/2014 5:34:00 AM	Analyst:	280
Instrument ID:	BNAMS11	Prep Date:	11/15/2014
Sample Numbers:	L733743-06, -07, -08, -09, -11		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1-Methylnaphthalene	90-12-0	< 1.00	< 0.330	
2-Methylnaphthalene	91-57-6	< 1.00	< 0.311	
Benzo(a)pyrene	50-32-8	< 1.00	< 0.340	
Naphthalene	91-20-3	< 1.00	< 0.372	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755104
Analysis Date:	11/19/2014 6:54:00 AM	Analyst:	280
Instrument ID:	BNAMS2, BNAMS1	Prep Date:	11/17/2014
Sample Numbers:	L733743-10, -12, -13, -14, -15		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1-Methylnaphthalene	90-12-0	< 1.00	< 0.330	
2-Methylnaphthalene	91-57-6	< 1.00	< 0.311	
Benzo(a)pyrene	50-32-8	< 1.00	< 0.340	
Naphthalene	91-20-3	< 1.00	< 0.372	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754898
Analysis Date:	11/18/2014 9:10:00 AM	Analyst:	280
Instrument ID:	BNAMS4, BNAMS1	Prep Date:	11/15/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1-Methylnaphthalene	1	25	18.081	72.3	34.7 - 102	
2-Methylnaphthalene	1	25	16.022	64.1	33.8 - 98.6	
Benzo(a)pyrene	1	25	17.323	69.3	45.6 - 106	
Naphthalene	1	25	15.035	60.1	32.2 - 101	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1-Methylnaphthalene	1	25	18.568	74.3	34.7 - 102	
2-Methylnaphthalene	1	25	17.282	69.1	33.8 - 98.6	
Benzo(a)pyrene	1	25	22.042	88.2	45.6 - 106	
Naphthalene	1	25	15.689	62.8	32.2 - 101	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD		
							Limits	Qual	% RPD	Limits	Qual
1-Methylnaphthalene	1	25	18.081	72.3	18.568	74.3	34.7 - 102		2.66	24.9	
2-Methylnaphthalene	1	25	16.022	64.1	17.282	69.1	33.8 - 98.6		7.57	24.2	
Benzo(a)pyrene	1	25	17.323	69.3	22.042	88.2	45.6 - 106		24	20	J3
Naphthalene	1	25	15.035	60.1	15.689	62.8	32.2 - 101		4.26	23.8	

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754905
Analysis Date:	11/18/2014 5:34:00 AM	Analyst:	280
Instrument ID:	BNAMS11	Prep Date:	11/15/2014
Sample Numbers:	L733743-06, -07, -08, -09, -11		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1-Methylnaphthalene	1	25	22.635	90.5	34.7 - 102	
2-Methylnaphthalene	1	25	20.468	81.9	33.8 - 98.6	
Benzo(a)pyrene	1	25	24.050	96.2	45.6 - 106	
Naphthalene	1	25	18.791	75.2	32.2 - 101	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1-Methylnaphthalene	1	25	23.251	93	34.7 - 102	
2-Methylnaphthalene	1	25	20.565	82.3	33.8 - 98.6	
Benzo(a)pyrene	1	25	25.131	101	45.6 - 106	
Naphthalene	1	25	19.448	77.8	32.2 - 101	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
1-Methylnaphthalene	1	25	22.635	90.5	23.251	93	34.7 - 102		2.68	24.9
2-Methylnaphthalene	1	25	20.468	81.9	20.565	82.3	33.8 - 98.6		0.48	24.2
Benzo(a)pyrene	1	25	24.050	96.2	25.131	101	45.6 - 106		4.4	20
Naphthalene	1	25	18.791	75.2	19.448	77.8	32.2 - 101		3.44	23.8



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755104
Analysis Date:	11/19/2014 6:54:00 AM	Analyst:	280
Instrument ID:	BNAMS2, BNAMS1	Prep Date:	11/17/2014
Sample Numbers:	L733743-10, -12, -13, -14, -15		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1-Methylnaphthalene	1	25	19.461	77.8	34.7 - 102	
2-Methylnaphthalene	1	25	17.107	68.4	33.8 - 98.6	
Benzo(a)pyrene	1	25	21.426	85.7	45.6 - 106	
Naphthalene	1	25	16.391	65.6	32.2 - 101	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1-Methylnaphthalene	1	25	20.402	81.6	34.7 - 102	
2-Methylnaphthalene	1	25	18.181	72.7	33.8 - 98.6	
Benzo(a)pyrene	1	25	21.895	87.6	45.6 - 106	
Naphthalene	1	25	17.057	68.2	32.2 - 101	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
1-Methylnaphthalene	1	25	19.461	77.8	20.402	81.6	34.7 - 102		4.72	24.9
2-Methylnaphthalene	1	25	17.107	68.4	18.181	72.7	33.8 - 98.6		6.09	24.2
Benzo(a)pyrene	1	25	21.426	85.7	21.895	87.6	45.6 - 106		2.17	20
Naphthalene	1	25	16.391	65.6	17.057	68.2	32.2 - 101		3.99	23.8



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754905
Analysis Date:	11/18/2014 5:34:00 AM	Analyst:	280
Instrument ID:	BNAMS11	Prep Date:	11/15/2014
Sample Numbers:	L733743-06, -07, -08, -09, -11		

Matrix Spike / Matrix Spike Duplicate

L733682-02

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
1-Methylnaphthalene	1	25	0.0	21.871	87.5	23.640	94.6	10 - 149		7.77	26	
2-Methylnaphthalene	1	25	0.0	19.779	79.1	21.028	84.1	24.6 - 114		6.12	23.7	
Benzo(a)pyrene	1	25	0.0	23.981	95.9	24.835	99.3	23.3 - 135		3.5	20	
Naphthalene	1	25	0.2125	18.128	71.7	19.004	75.2	20.2 - 114		4.72	27.5	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754898
Analysis Date:	11/18/2014 9:10:00 AM	Analyst:	280
Instrument ID:	BNAMS4	Prep Date:	11/15/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05		

Internal Standard Response and Retention Time Summary

File ID: 1117B_02
Analyzed: 11/18/14 053000

	IS4		ACE		CHR		NAP	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	96540	5.44	266855	8.62	770545	13.14	365366	6.73
Upper Limit	193000	5.94	534000	9.12	1540000	13.64	731000	7.23
Lower Limit	48300	4.94	133000	8.12	385000	12.64	183000	6.23
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-01	74404	5.44	186785	8.62	528573	13.14	264209	6.72
L733743-02	73011	5.44	201251	8.62	473283	13.14	273646	6.72
L733743-03	69680	5.44	178445	8.62	474231	13.14	275419	6.72
L733743-04	72736	5.44	189866	8.62	491429	13.14	271773	6.72
L733743-05	74019	5.44	213587	8.61	519828	13.14	281988	6.72
LCSD WG754898	74200	5.44	200135	8.62	498098	13.14	297132	6.72
LCS WG754898	83320	5.44	217302	8.62	551627	13.14	311912	6.72
BLANK WG754898	73380	5.44	203265	8.62	494260	13.14	277870	6.72

Legend:

IS4 -- 1,4-Dichlorobenzene-d4
ACE -- Acenaphthene-d10
CHR -- Chrysene-d12
NAP -- Naphthalene-d8
PER -- Perylene-d12
PHEN -- Phenanthrene-d10

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754898
Analysis Date:	11/18/2014 9:10:00 AM	Analyst:	280
Instrument ID:	BNAMS4	Prep Date:	11/15/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05		

Internal Standard Response and Retention Time Summary

File ID: 1117B_02
Analyzed: 11/18/14 053000

	IS4		PER		PHEN	
	Response	RT	Response	RT	Response	RT
12 Hr. Std	96540	5.44	846499	14.64	539273	10.25
Upper Limit	193000	5.94	1690000	15.14	1080000	10.75
Lower Limit	48300	4.94	423000	14.14	270000	9.75
Sample ID	Response	RT	Response	RT	Response	RT
L733743-01	74404	5.44	564935	14.64	379064	10.25
L733743-02	73011	5.44	614831	14.64	376765	10.25
L733743-03	69680	5.44	577623	14.64	367544	10.25
L733743-04	72736	5.44	602257	14.64	383338	10.25
L733743-05	74019	5.44	578018	14.64	383772	10.25
LCSD WG754898	74200	5.44	621534	14.64	395763	10.25
LCS WG754898	83320	5.44	669359	14.64	460354	10.25
BLANK WG754898	73380	5.44	600596	14.64	400355	10.25

Legend:

IS4 -- 1,4-Dichlorobenzene-d4
ACE -- Acenaphthene-d10
CHR -- Chrysene-d12
NAP -- Naphthalene-d8
PER -- Perylene-d12
PHEN -- Phenanthrene-d10

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754905
Analysis Date:	11/18/2014 5:34:00 AM	Analyst:	280
Instrument ID:	BNAMS11	Prep Date:	11/15/2014
Sample Numbers:	L733743-06, -07, -08, -09, -11		

Internal Standard Response and Retention Time Summary

File ID: 1117A_03
Analyzed: 11/18/14 005900

	IS4		ACE		CHR		NAP	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	112097	5.44	300417	8.57	665559	13.04	473029	6.70
Upper Limit	224000	5.94	601000	9.07	1330000	13.54	946000	7.20
Lower Limit	56000	4.94	150000	8.07	333000	12.54	237000	6.20
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-06	100539	5.44	262737	8.57	608351	13.03	415952	6.70
L733743-07	102421	5.44	278292	8.57	641628	13.03	445774	6.70
L733743-08	95231	5.44	247725	8.57	574015	13.03	404539	6.70
L733743-09	102882	5.44	271158	8.57	615366	13.03	442411	6.70
L733743-11	102559	5.44	267900	8.57	608372	13.03	430876	6.70
MSD WG754905	92918	5.44	236277	8.57	555155	13.03	383025	6.70
MS WG754905	104786	5.44	281902	8.57	654480	13.03	447784	6.70
LCSD WG754905	89694	5.44	237027	8.57	527371	13.03	378266	6.70
LCS WG754905	104645	5.44	283976	8.57	650136	13.03	443346	6.70
BLANK WG754905	96078	5.44	258759	8.57	576116	13.03	408222	6.70

Legend:

IS4 -- 1,4-Dichlorobenzene-d4
ACE -- Acenaphthene-d10
CHR -- Chrysene-d12
NAP -- Naphthalene-d8
PER -- Perylene-d12
PHEN -- Phenanthrene-d10

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754905
Analysis Date:	11/18/2014 5:34:00 AM	Analyst:	280
Instrument ID:	BNAMS11	Prep Date:	11/15/2014
Sample Numbers:	L733743-06, -07, -08, -09, -11		

Internal Standard Response and Retention Time Summary

File ID: 1117A_03
Analyzed: 11/18/14 005900

	IS4		PER		PHEN	
	Response	RT	Response	RT	Response	RT
12 Hr. Std	112097	5.44	855919	14.52	554212	10.18
Upper Limit	224000	5.94	1710000	15.02	1110000	10.68
Lower Limit	56000	4.94	428000	14.02	277000	9.68
Sample ID	Response	RT	Response	RT	Response	RT
L733743-06	100539	5.44	797050	14.52	481435	10.18
L733743-07	102421	5.44	793667	14.52	508084	10.18
L733743-08	95231	5.44	698344	14.52	446087	10.17
L733743-09	102882	5.44	766721	14.52	499705	10.18
L733743-11	102559	5.44	754632	14.51	493537	10.18
MSD WG754905	92918	5.44	668943	14.52	441857	10.18
MS WG754905	104786	5.44	817970	14.51	509281	10.18
LCSD WG754905	89694	5.44	661787	14.52	427899	10.18
LCS WG754905	104645	5.44	812683	14.52	519947	10.18
BLANK WG754905	96078	5.44	730647	14.52	465339	10.18

Legend:

IS4 -- 1,4-Dichlorobenzene-d4
ACE -- Acenaphthene-d10
CHR -- Chrysene-d12
NAP -- Naphthalene-d8
PER -- Perylene-d12
PHEN -- Phenanthrene-d10

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755104
Analysis Date:	11/19/2014 6:54:00 AM	Analyst:	280
Instrument ID:	BNAMS2	Prep Date:	11/17/2014
Sample Numbers:	L733743-10, -12, -13, -14, -15		

Internal Standard Response and Retention Time Summary

File ID: 1118A_02

Analyzed: 11/19/14 014700

	IS4		ACE		CHR		NAP	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	43686	4.95	112389	8.01	267019	12.42	157972	6.17
Upper Limit	87400	5.45	225000	8.51	534000	12.92	316000	6.67
Lower Limit	21800	4.45	56200	7.51	134000	11.92	79000	5.67
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-10	32135	4.95	96347	8.01	195160	12.42	132104	6.17
L733743-12	34678	4.95	91303	8.01	179120	12.42	129866	6.17
L733743-13	33178	4.95	88811	8.01	180830	12.41	119470	6.17
L733743-14	33236	4.95	88092	8.01	186318	12.42	129377	6.17
L733743-15	33389	4.95	91827	8.01	176376	12.42	122828	6.17
LCSD WG755104	38127	4.95	97307	8.01	222074	12.42	138847	6.17
LCS WG755104	38217	4.95	97172	8.01	219425	12.42	138091	6.18
BLANK WG755104	36650	4.95	96984	8.01	201813	12.42	136842	6.18

Legend:

IS4 -- 1,4-Dichlorobenzene-d4
 ACE -- Acenaphthene-d10
 CHR -- Chrysene-d12
 NAP -- Naphthalene-d8
 PER -- Perylene-d12
 PHEN -- Phenanthrene-d10

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755104
Analysis Date:	11/19/2014 6:54:00 AM	Analyst:	280
Instrument ID:	BNAMS2	Prep Date:	11/17/2014
Sample Numbers:	L733743-10, -12, -13, -14, -15		

Internal Standard Response and Retention Time Summary

File ID: 1118A_02
Analyzed: 11/19/14 014700

	IS4		PER		PHEN	
	Response	RT	Response	RT	Response	RT
12 Hr. Std	43686	4.95	312215	13.85	222028	9.60
Upper Limit	87400	5.45	624000	14.35	444000	10.10
Lower Limit	21800	4.45	156000	13.35	111000	9.10
Sample ID	Response	RT	Response	RT	Response	RT
L733743-10	32135	4.95	221482	13.85	179867	9.59
L733743-12	34678	4.95	213542	13.85	173032	9.59
L733743-13	33178	4.95	199642	13.85	164979	9.59
L733743-14	33236	4.95	226509	13.85	176573	9.59
L733743-15	33389	4.95	216036	13.85	171536	9.59
LCSD WG755104	38127	4.95	260298	13.85	187967	9.59
LCS WG755104	38217	4.95	248368	13.85	187882	9.59
BLANK WG755104	36650	4.95	231233	13.85	182763	9.59

Legend:

IS4 -- 1,4-Dichlorobenzene-d4
ACE -- Acenaphthene-d10
CHR -- Chrysene-d12
NAP -- Naphthalene-d8
PER -- Perylene-d12
PHEN -- Phenanthrene-d10



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754898
Analysis Date:	11/18/2014 9:10:00 AM	Analyst:	280
Instrument ID:	BNAMS4	Prep Date:	11/15/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	TBP		FBP		2FP		NBZ	
			ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-01	BNAMS4	1117B_12	0.0155	77.4	0.00762	76.2	0.00836	41.8	0.00739	73.9
L733743-02	BNAMS4	1117B_13	0.0172	86.2	0.00761	76.1	0.0113	56.6	0.00859	85.9
L733743-03	BNAMS4	1117B_14	0.0164	82.1	0.00820	82.0	0.0108	53.9	0.00727	72.7
L733743-04	BNAMS4	1117B_15	0.0145	72.3	0.00818	81.8	0.00243	12.1	0.00726	72.6
L733743-05	BNAMS4	1117B_16	0.0150	75.0	0.00715	71.5	0.0109	54.6	0.00747	74.7
LCS WG754898	BNAMS4	1117B_07	0.0131	65.4	0.00672	67.2	0.0104	51.8	0.00694	69.4
LCSD WG754898	BNAMS4	1117B_08	0.0154	77.1	0.00728	72.8	0.0112	56.0	0.00713	71.3
BLANK WG754898	BNAMS4	1117B_09	0.0147	73.3	0.00726	72.6	0.0107	53.5	0.00699	69.9

TBP --2,4,6-TRIBROMOPHENOL

True Value: 0.02 ppm Limits: 11.2 - 130

FBP --2-FLUOROBIPHENYL

True Value: 0.01 ppm Limits: 29.5 - 131

2FP --2-FLUOROPHENOL

True Value: 0.02 ppm Limits: 10 - 77.9

NBZ --NITROBENZENE-D5

True Value: 0.01 ppm Limits: 21.8 - 123

TPH --P-TERPHENYL-D14

True Value: 0.01 ppm Limits: 29.3 - 137

PHL --PHENOL-D5

True Value: 0.02 ppm Limits: 5 - 70.1



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754898
Analysis Date:	11/18/2014 9:10:00 AM	Analyst:	280
Instrument ID:	BNAMS4	Prep Date:	11/15/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	TPH		PHL	
			ppm	% Rec	ppm	% Rec
L733743-01	BNAMS4	1117B_12	0.00697	69.7	0.00640	32.0
L733743-02	BNAMS4	1117B_13	0.00777	77.7	0.00813	40.6
L733743-03	BNAMS4	1117B_14	0.00880	88.0	0.00757	37.8
L733743-04	BNAMS4	1117B_15	0.00847	84.7	0.00362	18.1
L733743-05	BNAMS4	1117B_16	0.00749	74.9	0.00839	41.9
LCS WG754898	BNAMS4	1117B_07	0.00716	71.6	0.00700	35.0
LCSD WG754898	BNAMS4	1117B_08	0.00804	80.4	0.00731	36.6
BLANK WG754898	BNAMS4	1117B_09	0.00736	73.6	0.00806	40.3

TBP --2,4,6-TRIBROMOPHENOL	True Value: 0.02 ppm	Limits: 11.2 - 130
FBP --2-FLUOROBIPHENYL	True Value: 0.01 ppm	Limits: 29.5 - 131
2FP --2-FLUOROPHENOL	True Value: 0.02 ppm	Limits: 10 - 77.9
NBZ --NITROBENZENE-D5	True Value: 0.01 ppm	Limits: 21.8 - 123
TPH --P-TERPHENYL-D14	True Value: 0.01 ppm	Limits: 29.3 - 137
PHL --PHENOL-D5	True Value: 0.02 ppm	Limits: 5 - 70.1



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754905
Analysis Date:	11/18/2014 5:34:00 AM	Analyst:	280
Instrument ID:	BNAMS11	Prep Date:	11/15/2014
Sample Numbers:	L733743-06, -07, -08, -09, -11		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	TBP		FBP		2FP		NBZ	
			ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-06	BNAMS11	1117A_16	0.0156	78.1	0.00885	88.5	0.00974	48.7	0.00715	71.5
L733743-07	BNAMS11	1117A_17	0.0151	75.5	0.00852	85.2	0.0100	50.0	0.00630	63.0
L733743-08	BNAMS11	1117A_18	0.0153	76.7	0.00794	79.4	0.00904	45.2	0.00563	56.3
L733743-09	BNAMS11	1117A_19	0.0169	84.4	0.00964	96.4	0.0101	50.5	0.00700	70.0
L733743-11	BNAMS11	1117A_20	0.0147	73.6	0.00877	87.7	0.00799	39.9	0.00669	66.9
LCS WG754905	BNAMS11	1117A_05	0.0204	102	0.00904	90.4	0.0101	50.7	0.00710	71.0
LCSD WG754905	BNAMS11	1117A_06	0.0210	105	0.00928	92.8	0.0104	52.1	0.00765	76.5
BLANK WG754905	BNAMS11	1117A_07	0.0173	86.5	0.00902	90.2	0.0110	54.8	0.00711	71.1
MS WG754905	BNAMS11	1117A_14	0.0189	94.3	0.00862	86.2	0.00923	46.1	0.00683	68.3
MSD WG754905	BNAMS11	1117A_15	0.0187	93.4	0.00921	92.1	0.00969	48.4	0.00759	75.9

TBP --2,4,6-TRIBROMOPHENOL

True Value: 0.02 ppm Limits: 11.2 - 130

FBP --2-FLUOROBIPHENYL

True Value: 0.01 ppm Limits: 29.5 - 131

2FP --2-FLUOROPHENOL

True Value: 0.02 ppm Limits: 10 - 77.9

NBZ --NITROBENZENE-D5

True Value: 0.01 ppm Limits: 21.8 - 123

TPH --P-TERPHENYL-D14

True Value: 0.01 ppm Limits: 29.3 - 137

PHL --PHENOL-D5

True Value: 0.02 ppm Limits: 5 - 70.1



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754905
Analysis Date:	11/18/2014 5:34:00 AM	Analyst:	280
Instrument ID:	BNAMS11	Prep Date:	11/15/2014
Sample Numbers:	L733743-06, -07, -08, -09, -11		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	TPH		PHL	
			ppm	% Rec	ppm	% Rec
L733743-06	BNAMS11	1117A_16	0.00857	85.7	0.00715	35.8
L733743-07	BNAMS11	1117A_17	0.00847	84.7	0.00793	39.7
L733743-08	BNAMS11	1117A_18	0.00877	87.7	0.00702	35.1
L733743-09	BNAMS11	1117A_19	0.00908	90.8	0.00742	37.1
L733743-11	BNAMS11	1117A_20	0.00830	83.0	0.00631	31.6
LCS WG754905	BNAMS11	1117A_05	0.00888	88.8	0.00791	39.6
LCSD WG754905	BNAMS11	1117A_06	0.00927	92.7	0.00835	41.8
BLANK WG754905	BNAMS11	1117A_07	0.00884	88.4	0.00814	40.7
MS WG754905	BNAMS11	1117A_14	0.00831	83.1	0.00683	34.2
MSD WG754905	BNAMS11	1117A_15	0.00867	86.7	0.00707	35.4

TBP --2,4,6-TRIBROMOPHENOL	True Value: 0.02 ppm	Limits: 11.2 - 130
FBP --2-FLUOROBIPHENYL	True Value: 0.01 ppm	Limits: 29.5 - 131
2FP --2-FLUOROPHENOL	True Value: 0.02 ppm	Limits: 10 - 77.9
NBZ --NITROBENZENE-D5	True Value: 0.01 ppm	Limits: 21.8 - 123
TPH --P-TERPHENYL-D14	True Value: 0.01 ppm	Limits: 29.3 - 137
PHL --PHENOL-D5	True Value: 0.02 ppm	Limits: 5 - 70.1



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755104
Analysis Date:	11/19/2014 6:54:00 AM	Analyst:	280
Instrument ID:	BNAMS2	Prep Date:	11/17/2014
Sample Numbers:	L733743-10, -12, -13, -14, -15		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	TBP		FBP		2FP		NBZ	
			ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-10	BNAMS2	1118A_16	0.0146	72.8	0.00743	74.3	0.0122	60.8	0.00568	56.8
L733743-12	BNAMS2	1118A_17	0.0142	70.8	0.00764	76.4	0.00849	42.4	0.00611	61.1
L733743-13	BNAMS2	1118A_18	0.0134	66.8	0.00766	76.6	0.00915	45.7	0.00675	67.5
L733743-14	BNAMS2	1118A_19	0.0152	75.8	0.00865	86.5	0.0106	52.8	0.00718	71.8
L733743-15	BNAMS2	1118A_20	0.0129	64.5	0.00677	67.7	0.0112	56.2	0.00563	56.3
LCS WG755104	BNAMS2	1118A_04-	0.0172	85.9	0.00770	77.0	0.0111	55.4	0.00627	62.7
LCSD WG755104	BNAMS2	1118A_05-	0.0191	95.5	0.00751	75.1	0.0114	56.8	0.00698	69.8
BLANK WG755104	BNAMS2	1118A_06-	0.0147	73.3	0.00779	77.9	0.00940	47.0	0.00569	56.9

TBP --2,4,6-TRIBROMOPHENOL

True Value: 0.02 ppm Limits: 11.2 - 130

FBP --2-FLUOROBIPHENYL

True Value: 0.01 ppm Limits: 29.5 - 131

2FP --2-FLUOROPHENOL

True Value: 0.02 ppm Limits: 10 - 77.9

NBZ --NITROBENZENE-D5

True Value: 0.01 ppm Limits: 21.8 - 123

TPH --P-TERPHENYL-D14

True Value: 0.01 ppm Limits: 29.3 - 137

PHL --PHENOL-D5

True Value: 0.02 ppm Limits: 5 - 70.1



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755104
Analysis Date:	11/19/2014 6:54:00 AM	Analyst:	280
Instrument ID:	BNAMS2	Prep Date:	11/17/2014
Sample Numbers:	L733743-10, -12, -13, -14, -15		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	TPH		PHL	
			ppm	% Rec	ppm	% Rec
L733743-10	BNAMS2	1118A_16	0.00809	80.9	0.00740	37.0
L733743-12	BNAMS2	1118A_17	0.00765	76.5	0.00528	26.4
L733743-13	BNAMS2	1118A_18	0.00696	69.6	0.00620	31.0
L733743-14	BNAMS2	1118A_19	0.00726	72.6	0.00805	40.3
L733743-15	BNAMS2	1118A_20	0.00774	77.4	0.00700	35.0
LCS WG755104	BNAMS2	1118A_04-	0.00748	74.8	0.00714	35.7
LCSD WG755104	BNAMS2	1118A_05-	0.00730	73.0	0.00749	37.4
BLANK WG755104	BNAMS2	1118A_06-	0.00666	66.6	0.00582	29.1

TBP --2,4,6-TRIBROMOPHENOL	True Value: 0.02 ppm	Limits: 11.2 - 130
FBP --2-FLUOROBIPHENYL	True Value: 0.01 ppm	Limits: 29.5 - 131
2FP --2-FLUOROPHENOL	True Value: 0.02 ppm	Limits: 10 - 77.9
NBZ --NITROBENZENE-D5	True Value: 0.01 ppm	Limits: 21.8 - 123
TPH --P-TERPHENYL-D14	True Value: 0.01 ppm	Limits: 29.3 - 137
PHL --PHENOL-D5	True Value: 0.02 ppm	Limits: 5 - 70.1

ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Billing Information:
 Attn: Accounts Payable
 630 Plaza Drive, Suite 600
 Highlands Ranch, CO 80129

Report to:
Project Manager

Email To: pam.krueger@arcadis-us.com; maisha.turner@arcadis-us.com

Project Description: **Navajo Refining Company - Artesia, NM**

City/State Collected:

Phone: 713-953-4800
 Fax:

Client Project #
 TX000836.0008.00004

Lab Project #
 ARCADHTX-NAVAJO

Collected by (print):
 Scott Ude + HMI Team

Site/Facility ID # (no additional a1/a2/coc)
 TMD

P.O. #

Collected by (signature):
 Scott Ude

Rush? (Lab MUST Be Notified)
 ___ Same Day200%
 ___ Next Day100%
 ___ Two Day50%
 ___ Three Day25%


Date Results Needed

Immediately Packed on Ice N ___ Y

Email? ___ No Yes
 FAX? ___ No ___ Yes


Analysis / Container / Preservative	
CL FL SO4 125mlHDPE-NoPres	DROOROLVI 40mlAmb-HCl-BT
GRO 40mlAmb HCl	METALS 500mlHDPE-HNO3 L2
NO2NO3 250mlHDPE-H2SO4 L2	TDS 250mlHDPE-NoPres
V8260 40mlAmb-HCl	

Chain of Custody Page 1 of 1



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859



L# **L73743**

Table #

Acctnum: **ARCADHTX**
 Template: **T98008**
 Prelogin: **P487505**
 TSR: 633 - Pam Langford
 PB: **10.27 M J**
 Shipped Via: **FedEX Ground**

Sample ID	Comp/Gfab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis / Container / Preservative							Rem./Contaminant	Sample # (lab only)
							CL FL SO4 125mlHDPE-NoPres	DROOROLVI 40mlAmb-HCl-BT	GRO 40mlAmb HCl	METALS 500mlHDPE-HNO3 L2	NO2NO3 250mlHDPE-H2SO4 L2	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl		
MW-21		GW		11/12/14	1350 ³⁴ 1250	10/8	X	X	X	X	X	X	X		66
MW-46R		GW		11/13/14	1640	8	X	X	X	X	X	X	X		67
NP-1		GW		11/12/14	1350	2						X			68
		GW				2						X			
		GW				2						X			

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____

Remarks:

pH _____ Temp _____
 Flow _____ Other _____

Relinquished by: (Signature) Scott Ude	Date: 11/14/14	Time: 800	Received by: (Signature) [Signature]	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____	Condition: (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.1 °C Bottles Received: 1287	COC Seal Intact: Y ___ N ___ NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) [Signature]	Date: 11/15/14 Time: 0900	pH Checked: 2.2 NCF: 476 of 485

ARCADIS US - TX		Billing Information:	
2929 Briarpark Dr., Suite 300 Houston, TX 77042		Attn: Accounts Payable 630 Plaza Drive, Suite 600 Highlands Ranch, CO 80129	

Report to: Project Manager	Email To: pam.krueger@arcadis-us.com; maisha.turner@arcadis-
--------------------------------------	--------------------------------------------------------------

Project Description: Navajo Refining Company - Artesia, NM		City/State Collected:
Phone: 713-953-4800	Client Project # TX000836.0008.00004	Lab Project # ARCADHTX-NAVAJO
Fax:	Site/Facility ID # TEL	P.O. #
Collected by (print): Scott Ude + HMI Team	Date Results Needed	
Collected by (signature): <i>Scott Ude</i>	Rush? (Lab MUST Be Notified)	Email? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
Immediately Packed on Ice <input type="checkbox"/> N <input checked="" type="checkbox"/> Y	<input type="checkbox"/> Same Day200% <input type="checkbox"/> Next Day100% <input type="checkbox"/> Two Day50% <input type="checkbox"/> Three Day25%	FAX? <input type="checkbox"/> No <input type="checkbox"/> Yes

Chain of Custody Page 1 of 2



L.A.B S.C.I.E.N.C.E.S

YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



L# **L733743**

Table #

Acctnum: **ARCADHTX**

Template: **T98003**

Prelogin: **P487503**

TSR: 633 - Pam Langford

PB: *10/27/14*

Shipped Via: **FedEX Ground**

Sample ID	Comp (Grab)	Matrix *	Depth	Date	Time	No. of Cntrs	CN 250mlHDPEAmb-NAOH	DROOROLVI 40mlAmb-HCl-BT	GRO 40mlAmb-HCl	METALS 500mlHDPE-HNO3	METALS 500mlHDPE-HNO3 6020 Ni, V, Ti, Fe, Hg, Se, Pb, Mn, Cd, Cr, Cu, Zn, Al, Ni, Co, Mo, Ni, V, Ti, Fe, Hg, Se, Pb, Mn, Cd, Cr, Cu, Zn, Al, Ni, Co, Mo	NO2/NO3, CL, FL, SO4 125mlHDPE-NoPres	NO2NO3 250mlHDPE-H2SO4	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl	Rem./Contaminant	Sample # (lab only)
MW-49		GW		11/12/14	1600	128	X	X	X	X	X	X	X	X	X		-69
TEL-1		GW		11/12/14	1020	108		X	X	X		X	X	X	X		76
TEL-2		GW		11/12/14	1115	108		X	X	X		X	X	X	X		71
TEL-3		GW		11/12/14	1210	108		X	X	X		X	X	X	X		72
TEL-4		GW		11/12/14	1335	108		X	X	X		X	X	X	X		73
		GW				8		X	X	X		X	X	X			
		GW				8		X	X	X		X	X	X			
		GW				8		X	X	X		X	X	X			
		GW				2									X		
		GW				2									X		

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Relinquished by: (Signature) <i>Scott Ude</i>	Date: 11/14/14	Time: 800	Received by: (Signature) <i>[Signature]</i>	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____	Condition: (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.1 °C Bottles Received: 1287	COC Seal Intact: Y N NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: 11/15/14 Time: 0900	pH Checked: _____ NCF: _____ Page 472 485

ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Billing Information:
 Attn: Accounts Payable
 630 Plaza Drive, Suite 600
 Highlands Ranch, CO 80129

Report to:
Project Manager

Email To: pam.krueger@arcadis-us.com; maisha.turner@arcadis-

Project Description: **Navajo Refining Company - Artesia, NM**

City/State Collected:

Phone: 713-953-4800
 Fax:

Client Project #
TX000836.0008.00004

Lab Project #
ARCADHTX-NAVAJO

Collected by (print):
Scott Ude + HMI Team

Site/Facility ID #
TEL (QA/QC)

P.O. #

Collected by (signature):
Scott Ude
 Immediately Packed on Ice N ___ Y

Rush? (Lab MUST Be Notified)
 ___ Same Day200%
 ___ Next Day100%
 ___ Two Day50%
 ___ Three Day25%

Date Results Needed
 Email? ___ No Yes
 FAX? ___ No ___ Yes


Analysis / Container / Preservative	
CN 250mlHDPEAmb-NaOH	DROOROLVI 40mlAmb-HCl-BT
GRO 40mlAmb-HCl	METALS 500mlHDPE-HNO3 <2
METALS 500mlHDPE-HNO3	NO2/NO3, CL, FL, SO4 125mlHDPE-NoPres
NO2/NO3 250mlHDPE-H2SO4 <2	TDS 250mlHDPE-NoPres
V8260 40mlAmb-HCl	

Chain of Custody Page 2 of 2



12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Fax: 615-758-5859

YOUR LAB OF CHOICE



L# **L733743**
 Table #
 Acctnum: **ARCADHTX**
 Template: **T98003**
 Prelogin: **P487503**
 TSR: 633 - Pam Langford
 PB: *10/27/14 mb*
 Shipped Via: **FedEX Ground**

Sample ID	Comp	Grab	Matrix *	Depth	Date	Time	No. of Cntrs	CN 250mlHDPEAmb-NaOH	DROOROLVI 40mlAmb-HCl-BT	GRO 40mlAmb-HCl	METALS 500mlHDPE-HNO3 <2	METALS 500mlHDPE-HNO3	NO2/NO3, CL, FL, SO4 125mlHDPE-NoPres	NO2NO3 250mlHDPE-H2SO4 <2	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl	Rem./Contaminant	Sample # (lab only)
DUP-TEL-01			GW		11/12/14	1200	10/2	X	X	X			X	X	X	X		74
EB-TEL-01			GW		11/12/14	1235	10/2	X	X	X			X	X	X	X		75
Trip Blank-TEL-01			GW		11/12/14	---	1/2									X		76
			GW				2									X		
			GW				2									X		
			GW				2									X		
			GW				2									X		
			GW				2	X				X						

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH _____ Temp _____
 Flow _____ Other _____

Relinquished by: (Signature)
Scott Ude

Date: 11/14/14
 Time: 800

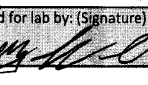
Received by: (Signature)


Samples returned via: UPS
 FedEx Courier _____

Condition: (lab use only)


Relinquished by: (Signature)


Date: _____
 Time: _____

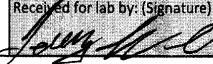
Received by: (Signature)


Temp: 3.1 °C Bottles Received: 1287

COC Seal Intact: ___ Y ___ N ___ NA

Relinquished by: (Signature)


Date: _____
 Time: _____

Received for lab by: (Signature)


Date: 11/15/14 Time: 0900

pH Checked: _____ NCF: _____
 Page 478 of 485

ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Billing Information:
 Attn: Accounts Payable
 630 Plaza Drive, Suite 600
 Highlands Ranch, CO 80129

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Report to:
Project Manager

Email To: pam.krueger@arcadis-us.com; maisha.turner@arcadis-

Project Description: **Navajo Refining Company - Artesia, NM**

City/State Collected:

Phone: 713-953-4800
 Fax:

Client Project #
TX000836.0008.00004

Lab Project #
ARCADHTX-NAVAJO

Collected by (print):
Scott Wade + HMI Team

Site/Facility ID #
NCL

P.O. #

Collected by (signature):
Scott Wade
 Immediately Packed on Ice Y N

Rush? (Lab MUST Be Notified)
 ___ Same Day200%
 ___ Next Day100%
 ___ Two Day50%
 ___ Three Day25%

Date Results Needed
 Email? ___ No Yes
 FAX? ___ No ___ Yes

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	300 CL FL SO4 125mlHDPE-NoPres	CN 250mlHDPEAmb-NaOH > 12	DROOROLVI 40mlAmb-HCl-BT	GRO 40mlAmb HCl	METALS 500mlHDPE-HNO3 < 2	NO2NO3 250mlHDPE-H2SO4 < 2	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl	6020 NI, V, TH 70 HG 500mlHDPE-HNO3 < 2	Rem./Contaminant	Sample # (lab only)
MW-45		GW		11/12/14	815	10	X	X	X		X	X	X	X	X		77
MW-54A		GW		11/13/14	1125	88	X		X		X	X	X	X			78
MW-55		GW		11/13/14	930	108	X	X	X	X	X	X	X	X	X		79
MW-56		GW		11/12/14	925	88	X		X	X	X	X	X	X	X		80
MW-108		GW		11/12/14	1150	82	X		X		X	X	X	X			81
NCL-31		GW		11/12/14	1025	82	X		X		X	X	X	X			82
NCL-32		GW		11/12/14	1310	82	X		X		X	X	X	X			83
NCL-33		GW		11/12/14	1545	82	X		X		X	X	X	X			84
NCL-44		GW		11/12/14	1435	82	X		X		X	X	X	X			85
NCL-49		GW		11/13/14	1215	82	X		X		X	X	X	X			86

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH _____ Temp _____
 Flow _____ Other _____

Relinquished by: (Signature)
Scott Wade

Date: 11/14/14
 Time: 800

Received by: (Signature)

Samples returned via: UPS
 FedEx Courier _____

Hold # _____
 Condition: (lab use only)

Relinquished by: (Signature)

Date: _____
 Time: _____

Received by: (Signature)

Temp: 3.1 °C
 Bottles Received: 1287

COC Seal Intact: Y N NA

Relinquished by: (Signature)

Date: _____
 Time: _____

Received for lab by: (Signature)

Date: 11/15/14
 Time: 0900

pH Checked: _____ NCF: 485
 Page 1 of 2
 L2 11/14



L# **L733743**
 Table # _____
 Acctnum: **ARCADHTX**
 Template: **T98007**
 Prelogin: **P487504**
 TSR: 633 - Pam Langford
 PB: 10/28/14 RMB
 Shipped Via: **FedEX Ground**

ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Billing Information:
 Attn: Accounts Payable
 630 Plaza Drive, Suite 600
 Highlands Ranch, CO 80129

Report to:
Project Manager

Email To: pam.krueger@arcadis-us.com; maisha.turner@arcadis-

Project Description: **Navajo Refining Company - Artesia, NM**

City/State Collected:

Phone: 713-953-4800
 Fax:

Client Project #
TX000836.0008.00004

Lab Project #
ARCADHTX-NAVAJO

Collected by (print):
Scott Ude + HMI Team

Site/Facility ID #
NCL (QA/QC)

P.O. #

Collected by (signature):
Scott Ude
 Immediately Packed on Ice N Y

Rush? (Lab MUST Be Notified)
 Same Day200%
 Next Day100%
 Two Day50%
 Three Day25%

Date Results Needed
 Email? No Yes
 FAX? No Yes

Analysis / Container / Preservative	
300 CL FL SO4 125mlHDPE-NoPres	
CN 250mlHDPEAmb-NaOH	
DROOROLVI 40mlAmb-HCl-BT	
GRO 40mlAmb HCl	
METALS 500mlHDPE-HNO3 L2	
NO2NO3 250mlHDPE-H2SO4 L2	
TDS 250mlHDPE-NoPres	
V8260 40mlAmb-HCl	

Chain of Custody Page 2 of 2



L.A.B S.C.I.E.N.C.E.S

YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859

L# **L733743**

Table #

Acctnum: **ARCADHTX**
 Template: **T98007**
 Prelogin: **P487504**
 TSR: 633 - Pam Langford
 PB: **10/28/14 MB**
 Shipped Via: **FedEX Ground**

Sample ID	Comp (Grab)	Matrix *	Depth	Date	Time	No. of Cntrs	300 CL FL SO4 125mlHDPE-NoPres	CN 250mlHDPEAmb-NaOH	DROOROLVI 40mlAmb-HCl-BT	GRO 40mlAmb HCl	METALS 500mlHDPE-HNO3 L2	NO2NO3 250mlHDPE-H2SO4 L2	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl	Rem./Contaminant	Sample # (lab only)
DUP-NCL-01		GW		11/13/14	TBD	86	X		X		X	X	X	X		87
EB-NCL-01		GW		11/12/14	1318	86	X		X		X	X	X	X		88
Trip Blank-NCL-01		GW		11/12/14		86	X		X		X	X	X	X		89
		GW				6	X		X		X	X	X			
		GW				6	X		X		X	X	X			
		GW				6	X		X		X	X	X			
		GW				6	X		X		X	X	X			
		GW				6	X		X		X	X	X			
		GW				6	X		X		X	X	X			

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH _____ Temp _____
 Flow _____ Other _____

Relinquished by: (Signature) <i>Scott Ude</i>	Date: 11/14/14	Time: 800	Received by: (Signature) <i>[Signature]</i>	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/>	Condition: (lab use only)
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received by: (Signature) <i>[Signature]</i>	Temp: 3.1 °C Bottles Received: 1207	COC Seal Intact: Y ___ N ___ NA
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: 11/15/14 Time: 0900	pH Checked: L2 NCF: Page 480 of 485

ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Billing Information:
 Attn: Accounts Payable
 630 Plaza Drive, Suite 600
 Highlands Ranch, CO 80129

Report to:
Project Manager

Email To: pam.krueger@arcadis-us.com; maisha.turner@arcadis-

Project Description: **Navajo Refining Company - Artesia, NM**

City/State Collected:

Phone: **713-953-4800**
 Fax:

Client Project #
TX000836.0008.00004

Lab Project #
ARCADHTX-NAVAJO

Collected by (print):

Site/Facility ID #
NCL

P.O. #

Collected by (signature):
 Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
 ___ Same Day200%
 ___ Next Day100%
 ___ Two Day50%
 ___ Three Day25%

Date Results Needed
 Email? ___ No **X** Yes
 FAX? ___ No ___ Yes

Analysis / Container / Preservative

300 CL FL SO4 125mlHDPE-NoPres	CN 250mlHDPEAmb-NaOH	DROORLVI 40mlAmb-HCl-BT	GRO 40mlAmb HCl	METALS 500mlHDPE-HNO3 LA	NO2NO3 250mlHDPE-H2SO4 LA	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl
--------------------------------	----------------------	-------------------------	-----------------	--------------------------	---------------------------	----------------------	-------------------

Chain of Custody Page **3** of **3**



ESC
 L.A.B S.C.I.E.N.C.E.S

YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859

L# **L733743**

Table #

Acctnum: **ARCADHTX**
 Template: **T98007**
 Prelogin: **P487504**
 TSR: **633 - Pam Langford**
 PB: **10/28/14 W6**
 Shipped Via: **FedEX Ground**

Rem./Contaminant Sample # (lab only)
90

Sample ID	Comp (Grab)	Matrix *	Depth	Date	Time	No. of Cntrs	300 CL FL SO4 125mlHDPE-NoPres	CN 250mlHDPEAmb-NaOH	DROORLVI 40mlAmb-HCl-BT	GRO 40mlAmb HCl	METALS 500mlHDPE-HNO3 LA	NO2NO3 250mlHDPE-H2SO4 LA	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl
NCL-34A	↓	GW		11/13/14	1030	8/2	X	X	X	X	X	X	X	X
		GW				2								X
		GW				2								X
		GW				2								X
		GW				2								X
		GW				2								X
		GW				2								X
		GW				2								X
		GW				2								X
		GW				4	X		X	X				

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other
 Remarks: **ARCADIS NOTE: FMR LNAPL WELL ON THIS PAGE OF LOC**

pH _____ Temp _____
 Flow _____ Other _____

Relinquished by: (Signature)
Sean Wade

Relinquished by: (Signature)
[Signature]

Relinquished by: (Signature)
[Signature]

Date: **11/14/14** Time: **800**

Date: _____ Time: _____

Date: _____ Time: _____

Received by: (Signature)
[Signature]

Received by: (Signature)
[Signature]

Received for lab by: (Signature)
[Signature]

Samples returned via: UPS
 FedEx Courier _____

Temp: **3.1** °C Bottles Received: **1287**

Date: **11/15/14** Time: **0900**

Hold #

Condition: (lab use only)

COC Seal Intact: **Y** **N** **NA**

pH Checked: **LA** NCF: **485**
 Page 481 of 485

ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Billing Information:
 Attn: Accounts Payable
 630 Plaza Drive, Suite 600
 Highlands Ranch, CO 80129

Report to:
Project Manager

Email To: pam.krueger@arcadis-us.com; maisha.turner@arcadis-us.com

Project Description: **Navajo Refining Company - Artesia, NM**

City/State Collected:
 Lab Project # **ARCADHTX-NAVAJO**

Phone: **713-953-4800**
 Fax:

Client Project # **TX000836.0008.00004**

P.O. #

Collected by (print): **Scott Ude - HMI Team**

Site/Facility ID # **Rest EVAPORATION PONDS**

Date Results Needed

Collected by (signature): **Scott Ude**
 Immediately Packed on Ice N ___ Y

Rush? (Lab MUST Be Notified)
 Same Day200%
 Next Day100%
 Two Day50%
 Three Day25%

Email? ___ No Yes
 FAX? ___ No ___ Yes

Analysis / Container / Preservative	300 CL, FL, SO4 125mlHDPE-NoPres	6020 NI, V, 7470 HG 500mlHDPE-HNO3 L2	CN 250mlHDPEAmb-NaOH 712	DROOROLVI 40mlAmb-HCl-BT	GRO 40mlAmb HCl	METALS, Nava 500mlHDPE-HNO3 L2	NO2NO3 250mlHDPE-H2SO4 L2	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl										
Sample ID	Comp (Grab)	Matrix *	Depth	Date	Time	No. of Cntrs													
KWB-1A		GW		11/12/14	1625	10/2	X	X	X	X	X	X	X	X	X	X	X	X	X
KWB-3AR		GW				10/2	X	X	X	X	X	X	X	X	X	X	X	X	X
KWB-7		GW		11/12/14	1515	10/2	X	X	X	X	X	X	X	X	X	X	X	X	X
KWB-11A		GW		11/13/14	955	10/2	X	X	X	X	X	X	X	X	X	X	X	X	X
KWB-11B		GW		11/13/14	905	10/2	X	X	X	X	X	X	X	X	X	X	X	X	X
KWB-12A		GW		11/13/14	1105	10/2	X	X	X	X	X	X	X	X	X	X	X	X	X
KWB-12B		GW		11/13/14	1150	10/2	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-23		GW		11/13/14	1245	10/2	X			X	X	X	X	X	X	X	X	X	X
MW-28		GW		11/12/14	1610	10/2	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-29		GW		11/13/14	1055	10/2	X			X	X	X	X	X	X	X	X	X	X

Chain of Custody Page 1 of 7

YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859

L# **L733743**

Table #

Acctnum: **ARCADHTX**
 Template: **T98001**
 Prelogin: **P487502**
 TSR: **633 - Pam Langford**
 PB: **1028-146**

Shipped Via: **FedEX Ground**

Rem./Contaminant Sample # (lab only)

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH _____ Temp _____
 Flow _____ Other _____

Relinquished by: (Signature) **Scott Ude**
 Date: **11/14/14** Time: **800**

Relinquished by: (Signature) _____
 Date: _____ Time: _____

Relinquished by: (Signature) _____
 Date: _____ Time: _____

Received by: (Signature) _____
 Date: _____ Time: _____

Received by: (Signature) _____
 Date: _____ Time: _____

Received for lab by: (Signature) **Scott Ude**
 Date: **11/15/14** Time: **0906**

Samples returned via: UPS
 FedEx Courier _____

Temp: **3.1** °C Bottles Received: **1287**

pH Checked: _____
 Page 482 of 485

Hold # _____

Condition: (lab use only) _____

COC Seal Intact: Y ___ N ___ NA

pH Checked: _____
 Page 482 of 485

6733743

FedEx
TRK# 6194 4949 7710
0221 SATURDAY 12:00P
PRIORITY OVERNIGHT

FedEx
TRK# 6194 4949 0955
0221 SATURDAY 12:00P
PRIORITY OVERNIGHT 3712

FedEx
TRK# 6194 4949 0977
0221 PRIORITY OVERNIGHT 2
37122

FedEx
TRK# 6194 4949 7662
0221 SATURDAY 12:00P
PRIORITY OVERNIGHT

FedEx
TRK# 6194 4949 0988
0221 SATURDAY 12:00P
PRIORITY OVERNIGHT

FedEx
TRK# 6194 4948 8613
0221 SATURDAY 12:00P
PRIORITY OVERNIGHT

FedEx
TRK# 6194 4949 7700
0221 SATURDAY 12:00P
PRIORITY OVERNIGHT 2
07400

FedEx
TRK# 6194 4948 9033
0221 SATURDAY 12:00P
PRIORITY OVERNIGHT 37122

FedEx
TRK# 6194 4949 0966
0221 SATURDAY 12:00P
PRIORITY OVERNIGHT 2
37122

FedEx
TRK# 6194 4949 7673
0221 SATURDAY 12:00P
PRIORITY OVERNIGHT 2
37122

FedEx
TRK# 6194 4949 7684
0221 SATURDAY 12:00P
PRIORITY OVERNIGHT

FedEx
TRK# 6194 4949 7721
0221 SATURDAY 12:00P
PRIORITY OVERNIGHT

FedEx
TRK# 6194 4948 9002
0221 SATURDAY 12:00P
PRIORITY OVERNIGHT 2
07400

FedEx
TRK# 6194 4949 0944
0221 RETURNING FROM SAT
PRIORITY OVERNIGHT

FedEx
TRK# 6194 4949 7695
0221 SATURDAY 12:00P
PRIORITY OVERNIGHT 2
37122

2733743

FedEx
TRK# 6194 4949 7489
0221
FRI - 14 NOV AA
STANDARD OVERNIGHT
37122
TN-US

FedEx
TRK# 6194 4949 7504
0221
FRI - 14 NOV AA
STANDARD OVERNIGHT
37122
TN-US

FedEx
TRK# 6194 4948 8988
0221
FRI - 14 NOV AA
STANDARD OVERNIGHT
37122
TN-US

FedEx
TRK# 6194 4949 7467
0221
FRI - 14 NOV A
STANDARD OVERNIGHT
37122
TN-US

FedEx
TRK# 6194 4949 7490
0221
FRI - 14 NOV AA
STANDARD OVERNIGHT
37122
TN-US
XH BNAA

FedEx
TRK# 6194 4949 7456
0221
FRI - 14 NOV AA
STANDARD OVERNIGHT
37122
TN-US

FedEx
TRK# 6194 4948 8999
0221
FRI - 14 NOV AA
STANDARD OVERNIGHT
37122
TN-US

FedEx
TRK# 6194 4949 0852
0221
FRI - 14 NOV AA
STANDARD OVERNIGHT
37122
TN-US

FedEx
TRK# 6194 4949 7445
0221
FRI - 14 NOV AA
STANDARD OVERNIGHT
37122
TN-US

FedEx
TRK# 6194 4949 7515
0221
FRI - 14 NOV AA
STANDARD OVERNIGHT
37122
TN-US
VII BNAA

L733743

FedEx
 TRACKING # 6194 4951 4062
 0221

XH BNAA
 TN-US
 BNA

FRI - 14 NOV AA
 STANDARD OVERNIGHT

37122




FD 968388 13NOV14 ROMA 522C1/615C/6500

FedEx
 TRACKING # 6194 4951 1534
 0221

XH BNAA
 TN-US
 BNA

FRI - 14 NOV AA
 STANDARD OVERNIGHT

37122




FD 968388 13NOV14 ROMA 522C1/615C/6500

FedEx
 TRACKING # 6194 4951 4095
 0221

XH BNAA
 TN-US
 BNA

FRI - 14 NOV AA
 STANDARD OVERNIGHT

37122



FD 968388 13NOV14 ROMA 522C1/615C/6500

FedEx
 TRACKING # 6194 4951 4110
 0221

FRI - 14 NOV AA
 STANDARD OVERNIGHT

FedEx
 TRACKING # 6194 4951 4100
 0221

FRI - 14 NOV AA
 STANDARD OVERNIGHT

37122
 TN-US

FedEx
 TRACKING # 6194 4951 4121
 0221

FRI - 14 NOV AA
 STANDARD OVERNIGHT

FedEx
 TRACKING # 6194 4951 4084
 0221

FRI - 14 NOV AA
 STANDARD OVERNIGHT

FedEx
 TRACKING # 6194 4951 4073
 0221

FRI - 14 NOV AA
 STANDARD OVERNIGHT

Quality Control Summary SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

Sample Receiving and Handling

All sample aliquots were received at the correct temperature, in the proper containers, and with the appropriate preservatives. Method specified holding times were not met for analyses on all samples.

Anions by Method 9056MOD

Laboratory Control Sample

Samples L733743-01 and 02 were analyzed in analytical batch WG755279. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -66, -67, -69, -70, -71, -72, and -73 were analyzed in analytical batch WG755284. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-56, -74, -75, -100, -101, and -102 were analyzed in analytical batch WG755463. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, and -122 were analyzed in analytical batch WG755572. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141, and -142 were analyzed in analytical batch WG755573. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-25, -26, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158, -159, and -160 were analyzed in analytical batch WG755977. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-27, -28, -29, -30, -31, -32, -34, -35, -36, -37, -38, -39, -40, -43, -44, -45, -46, -47, -48, and -52 were analyzed in analytical batch WG755979. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -77, -78, -79, -80, -81, -82, -83, -84, -85, and -86 were analyzed in analytical batch WG755980. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Quality Control Summary SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

Samples L733743-87, -88, -90, -91, -92, -93, -94, -95, -96, -97, -98, and -99 were analyzed in analytical batch WG755981. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-28, -31, -40, -45, -108, -117, -119, -129, -138, and -150 were analyzed in analytical batch WG756286. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-66, -69, -70, -71, -72, and -73 were analyzed in analytical batch WG756784. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-53, -54, -55, -57, -58, -59, and -155 were analyzed in analytical batch WG756800. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-77, -78, -79, -80, -81, -82, -83, -84, -85, and -86 were analyzed in analytical batch WG757012. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample L733743-85 was analyzed in analytical batch WG757344. The laboratory control sample associated with this sample was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample L733743-67 was analyzed in analytical batch WG758368. The laboratory control sample associated with this sample was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample Duplicate Analysis

For analytical batch WG755279 sample duplicate analysis was performed on sample L732952-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755279 sample duplicate analysis was performed on sample L733283-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755284 sample duplicate analysis was performed on sample L733743-05. The relative percent difference exceeded the method limits for Chloride and Sulfate.

For analytical batch WG755284 sample duplicate analysis was performed on sample L733743-14. The relative percent difference exceeded the method limits for Chloride.

For analytical batch WG755463 sample duplicate analysis was performed on sample L732989-01. The relative percent differences were within the method limits for target analytes reported from this batch.

Quality Control Summary

SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

For analytical batch WG755463 sample duplicate analysis was performed on sample L733018-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755463 sample duplicate analysis was performed on sample L733146-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755463 sample duplicate analysis was performed on sample L733046-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755572 sample duplicate analysis was performed on sample L733743-122. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755572 sample duplicate analysis was performed on sample L733743-109. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755573 sample duplicate analysis was performed on sample L733743-133. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755573 sample duplicate analysis was performed on sample L733743-124. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755977 sample duplicate analysis was performed on sample L733743-158. The relative percent difference exceeded the method limits for Chloride.

For analytical batch WG755977 sample duplicate analysis was performed on sample L733743-160. The relative percent difference exceeded the method limits for Chloride and Sulfate.

For analytical batch WG755979 sample duplicate analysis was performed on sample L733743-39. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755979 sample duplicate analysis was performed on sample L733743-29. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755980 sample duplicate analysis was performed on sample L733743-60. The relative percent difference exceeded the method limits for Chloride and Sulfate.

For analytical batch WG755980 sample duplicate analysis was performed on sample L733743-63. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755981 sample duplicate analysis was performed on sample L733881-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755981 sample duplicate analysis was performed on sample L733542-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG756286 sample duplicate analysis was performed on sample L733884-01. The relative percent differences were within the method limits for target analytes reported from this batch.

Quality Control Summary SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

For analytical batch WG756784 sample duplicate analysis was performed on sample L735467-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG756784 sample duplicate analysis was performed on sample L735897-02. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG756800 sample duplicate analysis was performed on sample L734837-03. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG757012 sample duplicate analysis was performed on sample L733743-84. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG757012 sample duplicate analysis was performed on sample L734287-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG757344 sample duplicate analysis was performed on sample L735431-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG757344 sample duplicate analysis was performed on sample L735078-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG758368 sample duplicate analysis was performed on sample L736163-01. The relative percent differences were within the method limits for target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG755279 matrix spike/matrix spike duplicate analysis was performed on sample L733584-02. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755284 matrix spike/matrix spike duplicate analysis was performed on sample L733743-11. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755463 matrix spike/matrix spike duplicate analysis was performed on sample L733124-02. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755572 matrix spike/matrix spike duplicate analysis was performed on sample L733743-113. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755573 matrix spike/matrix spike duplicate analysis was performed on sample L733743-123. The matrix spike recoveries were below laboratory control limits for Fluoride. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Quality Control Summary SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

For analytical batch WG755977 matrix spike/matrix spike duplicate analysis was performed on sample L733743-159. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755979 matrix spike/matrix spike duplicate analysis was performed on sample L733743-30. The matrix spike recoveries were below laboratory control limits for Fluoride. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755980 matrix spike/matrix spike duplicate analysis was performed on sample L733743-61. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755981 matrix spike/matrix spike duplicate analysis was performed on sample L733743-88. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG756286 matrix spike/matrix spike duplicate analysis was performed on sample L733743-129. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG756784 matrix spike/matrix spike duplicate analysis was performed on sample L735467-03. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG756800 matrix spike/matrix spike duplicate analysis was performed on sample L734613-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG757012 matrix spike/matrix spike duplicate analysis was performed on sample L734867-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG757344 matrix spike/matrix spike duplicate analysis was performed on sample L735338-10. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Precision for batch WG758368 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Total Dissolved Solids by Method 2540 C-2011

Laboratory Control Sample

Samples L733743-01, -02, -03, -04, -05, -06, -07, -08, and -09 were analyzed in analytical batch WG754846. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes

Quality Control Summary

SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-10, -11, -12, -13, -14, and -15 were analyzed in analytical batch WG754847. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-104, -107, -111, -114, -117, -119, -120, -121, -125, -126, -127, -128, -129, -131, -132, -139, -141, -142, -143, and -146 were analyzed in analytical batch WG755020. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-25, -26, -29, -34, -38, -40, -43, -44, -45, -48, -52, -53, -57, -59, -60, -63, -66, -147, -158, and -159 were analyzed in analytical batch WG755137. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-69, -70, -71, -72, -73, -74, -77, -80, -81, -82, -83, -84, -85, -88, -91, -92, -98, -100, and -101 were analyzed in analytical batch WG755139. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-102, -103, -105, -106, -108, -109, -110, -112, -113, and -115 were analyzed in analytical batch WG755145. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-116, -118, -122, -123, -124, -130, -133, -134, -135, and -136 were analyzed in analytical batch WG755146. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-27, -28, -30, -31, -137, -138, -140, -144, -145, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, and -160 were analyzed in analytical batch WG755343. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-32, -35, -36, -37, -39, -46, -47, -54, -55, -56, -58, -61, -62, -67, -78, -79, -86, -87, -90, and -93 were analyzed in analytical batch WG755344. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-94, -95, -96, -97, and -99 were analyzed in analytical batch WG755345. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Quality Control Summary

SDG: L733743

For: ARCADIS US - TX
Project: Navajo Refining Company - Artesia,
January 27, 2015

Sample L733743-75 was analyzed in analytical batch WG756114. The laboratory control sample associated with this sample was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample Duplicate Analysis

For analytical batch WG754846 sample duplicate analysis was performed on sample L733699-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG754847 sample duplicate analysis was performed on sample L733743-10. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG754847 sample duplicate analysis was performed on sample L733851-20. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755020 sample duplicate analysis was performed on sample L733743-104. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755020 sample duplicate analysis was performed on sample L733743-146. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755137 sample duplicate analysis was performed on sample L733743-147. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755137 sample duplicate analysis was performed on sample L733743-66. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755139 sample duplicate analysis was performed on sample L733743-100. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755139 sample duplicate analysis was performed on sample L733743-98. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755145 sample duplicate analysis was performed on sample L733743-102. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755146 sample duplicate analysis was performed on sample L733743-116. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755343 sample duplicate analysis was performed on sample L733743-137. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755343 sample duplicate analysis was performed on sample L733743-31. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755344 sample duplicate analysis was performed on sample L733743-32. The relative percent differences were within the method limits for target analytes reported from this batch.

Quality Control Summary SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

For analytical batch WG755344 sample duplicate analysis was performed on sample L733743-93. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755345 sample duplicate analysis was performed on sample L733851-06. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755345 sample duplicate analysis was performed on sample L733902-04. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG756114 sample duplicate analysis was performed on sample L733743-75. The relative percent differences were within the method limits for target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

Precision for batch WG754846 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG754847 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755020 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755137 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755139 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755145 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755146 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755343 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755344 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755345 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG756114 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Nitrate-Nitrite by Method 353.2

Laboratory Control Sample

Samples L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, and -29 were analyzed in analytical batch WG755162. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Quality Control Summary SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

Samples L733743-30, -31, -32, -34, -35, -36, -37, -38, -39, -40, -43, -44, -45, -46, -47, -48, -52, -53, -54, and -55 were analyzed in analytical batch WG755168. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, -72, -73, -74, -75, -77, -78, and -79 were analyzed in analytical batch WG755260. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, and -100 were analyzed in analytical batch WG755261. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -112, -113, -114, -115, -116, -117, -118, -119, and -120 were analyzed in analytical batch WG755577. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, and -140 were analyzed in analytical batch WG755578. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158, -159, and -160 were analyzed in analytical batch WG755581. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample L733743-111 was analyzed in analytical batch WG755868. The laboratory control sample associated with this sample was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample Duplicate Analysis

For analytical batch WG755162 sample duplicate analysis was performed on sample L733743-15. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755162 sample duplicate analysis was performed on sample L733743-10. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755168 sample duplicate analysis was performed on sample L733743-40. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755168 sample duplicate analysis was performed on sample L733743-43. The relative percent differences were within the method limits for target analytes reported from this batch.

Quality Control Summary

SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

For analytical batch WG755260 sample duplicate analysis was performed on sample L733743-78. The relative percent difference exceeded the method limits for Nitrate-Nitrite.

For analytical batch WG755260 sample duplicate analysis was performed on sample L733743-67. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755261 sample duplicate analysis was performed on sample L733743-88. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755261 sample duplicate analysis was performed on sample L733743-90. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755577 sample duplicate analysis was performed on sample L733743-110. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755577 sample duplicate analysis was performed on sample L733743-119. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755578 sample duplicate analysis was performed on sample L733743-130. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755578 sample duplicate analysis was performed on sample L733743-139. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755581 sample duplicate analysis was performed on sample L733743-150. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755581 sample duplicate analysis was performed on sample L733743-159. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755868 sample duplicate analysis was performed on sample L733884-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755868 sample duplicate analysis was performed on sample L733889-01. The relative percent differences were within the method limits for target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG755162 matrix spike/matrix spike duplicate analysis was performed on sample L733743-29. The matrix spike recoveries were below laboratory control limits for Nitrate-Nitrite. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755168 matrix spike/matrix spike duplicate analysis was performed on sample L733743-44. The matrix spike recoveries were below laboratory control limits for Nitrate-Nitrite. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755260 matrix spike/matrix spike duplicate analysis was performed on sample L733743-79. The matrix spike recoveries were below laboratory control limits for Nitrate-Nitrite. The relative percent difference was within

Quality Control Summary SDG: L733743

For: ARCADIS US - TX
Project: Navajo Refining Company - Artesia,
January 27, 2015

laboratory limits for all target analytes reported from this batch.

For analytical batch WG755261 matrix spike/matrix spike duplicate analysis was performed on sample L733743-99. The matrix spike recoveries were below laboratory control limits for Nitrate-Nitrite. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755577 matrix spike/matrix spike duplicate analysis was performed on sample L733743-120. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755578 matrix spike/matrix spike duplicate analysis was performed on sample L733743-140. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755581 matrix spike/matrix spike duplicate analysis was performed on sample L733743-160. The matrix spike recoveries were below laboratory control limits for Nitrate-Nitrite. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755868 matrix spike/matrix spike duplicate analysis was performed on sample L733605-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Cyanide by Method 9012B

Laboratory Control Sample

Samples L733743-01, -02, and -03 were analyzed in analytical batch WG755288. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -100, -102, -104, -107, -144, -148, and -154 were analyzed in analytical batch WG755292. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-31, -55, -69, -77, -79, -91, -92, -93, -94, -95, -96, -98, -155, -159, and -160 were analyzed in analytical batch WG755528. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample Duplicate Analysis

For analytical batch WG755288 sample duplicate analysis was performed on sample L733811-02. The relative percent differences were within the method limits for target analytes reported from this batch.

Quality Control Summary

SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

For analytical batch WG755288 sample duplicate analysis was performed on sample L733743-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755292 sample duplicate analysis was performed on sample L733743-05. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755292 sample duplicate analysis was performed on sample L733743-10. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755528 sample duplicate analysis was performed on sample L733743-31. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755528 sample duplicate analysis was performed on sample L733743-92. The relative percent differences were within the method limits for target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG755288 matrix spike/matrix spike duplicate analysis was performed on sample L733618-05. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755292 matrix spike/matrix spike duplicate analysis was performed on sample L733743-04. The matrix spike recoveries were below laboratory control limits for Cyanide. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755528 matrix spike/matrix spike duplicate analysis was performed on sample L733620-07. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Mercury by Method 7470A

Laboratory Control Sample

Samples L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -144, -148, -154, -155, and -159 were analyzed in analytical batch WG754885. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch.

Samples L733743-31, -55, -69, -77, -79, -91, -92, -93, -94, -95, -96, -98, -100, -102, -104, -107, and -160 were analyzed in analytical batch WG754886. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG754885 matrix spike/matrix spike duplicate analysis was performed on sample L733743-15. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Quality Control Summary SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

For analytical batch WG754886 matrix spike/matrix spike duplicate analysis was performed on sample L733743-94. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Trace Metals by Method 6020

Laboratory Control Sample

Samples L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, and -29 were analyzed in analytical batch WG755200. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, and -49 were analyzed in analytical batch WG755201. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-100, -101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118, and -119 were analyzed in analytical batch WG755204. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, and -139 were analyzed in analytical batch WG755205. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-140, -141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158, and -159 were analyzed in analytical batch WG755207. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-50, -51, -52, -53, -54, -55, -56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, and -72 were analyzed in analytical batch WG755208. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-73, -74, -75, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, and -94 were analyzed in analytical batch WG755209. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-95, -96, -97, -98, -99, and -160 were analyzed in analytical batch WG755211. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch.

Quality Control Summary SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, and -15 were analyzed in analytical batch WG755434. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-33, -35, -36, -37, -39, -43, -44, and -45 were analyzed in analytical batch WG756145. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG755200 matrix spike/matrix spike duplicate analysis was performed on sample L733743-02. The matrix spike recoveries were above laboratory control limits for Calcium. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch. Calcium did not meet the method limit criteria for the serial dilution.

For analytical batch WG755201 matrix spike/matrix spike duplicate analysis was performed on sample L733743-30. The matrix spike recoveries were above laboratory control limits for Manganese. The matrix spike recoveries were below laboratory control limits for Calcium, Manganese, and Sodium. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch. Nickel did not meet the method limit criteria for the serial dilution.

For analytical batch WG755204 matrix spike/matrix spike duplicate analysis was performed on sample L733743-100. The matrix spike recoveries were above laboratory control limits for Calcium and Sodium. The matrix spike recoveries were below laboratory control limits for Selenium, Sodium, and Zinc. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch. Selenium did not meet the method limit criteria for the serial dilution.

For analytical batch WG755205 matrix spike/matrix spike duplicate analysis was performed on sample L733743-120. The matrix spike recoveries were above laboratory control limits for Calcium and Sodium. The matrix spike recoveries were below laboratory control limits for Calcium. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755207 matrix spike/matrix spike duplicate analysis was performed on sample L733743-147. The matrix spike recoveries were below laboratory control limits for Calcium and Sodium. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755208 matrix spike/matrix spike duplicate analysis was performed on sample L733743-50. The matrix spike recoveries were above laboratory control limits for Calcium, Iron, Manganese, Potassium, and Sodium. The matrix spike recoveries were below laboratory control limits for Calcium. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch. Manganese, Potassium, and Sodium did not meet the method limit criteria for the serial dilution.

Quality Control Summary

SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

For analytical batch WG755209 matrix spike/matrix spike duplicate analysis was performed on sample L733743-73. The matrix spike recoveries were below laboratory control limits for Calcium and Sodium. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch. Calcium and Sodium did not meet the method limit criteria for the serial dilution.

For analytical batch WG755211 matrix spike/matrix spike duplicate analysis was performed on sample L733743-160. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755434 matrix spike/matrix spike duplicate analysis was performed on sample L733743-01. The matrix spike recoveries were above laboratory control limits for Calcium,Dissolved. The matrix spike recoveries were below laboratory control limits for Boron,Dissolved, Calcium,Dissolved, Iron,Dissolved, Manganese,Dissolved, Sodium,Dissolved, and Zinc,Dissolved. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch. Manganese,Dissolved did not meet the method limit criteria for the serial dilution.

For analytical batch WG756145 matrix spike/matrix spike duplicate analysis was performed on sample L733743-33. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Blank Analysis

For batch WG755200, the concentration of Nickel was above the method reporting limit.

For batch WG755201, the concentrations of Chromium and Nickel were above the method reporting limit.

For batch WG755211, the concentration of Chromium was above half of the method reporting limit.

For batch WG755434, the concentration of Chromium,Dissolved was above the method reporting limit.

For batch WG755209, the concentration of Chromium and Lead were above the method detection limit.

The remaining method blanks, initial calibration blank, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit except for WG755204 had a detection of Boron in the CCB.

Volatile TPH by Method 8015D/GRO

Laboratory Control Sample

Samples L733743-01, -10, -11, -12, -13, -14, -15, -25, -26, -27, and -28 were analyzed in analytical batch WG754942. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-30, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49, and -50 were analyzed in analytical batch WG754943. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Quality Control Summary SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

Samples L733743-51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -66, -71, and -75 were analyzed in analytical batch WG754944. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-94, -95, -96, -97, -98, -100, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, and -112 were analyzed in analytical batch WG754945. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, and -132 were analyzed in analytical batch WG754946. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-135, -136, -137, -138, -143, -145, -146, -147, -151, -152, -153, -154, -155, -156, -157, and -158 were analyzed in analytical batch WG754947. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-159 and 160 were analyzed in analytical batch WG754948. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample L733743-02 was analyzed in analytical batch WG755413. The laboratory control sample associated with this sample was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-03, -04, -05, -06, -07, -08, -09, -29, -79, -93, and -99 were analyzed in analytical batch WG755883. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-69, -70, -72, -73, and -74 were analyzed in analytical batch WG755923. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-133, -148, -149, and -150 were analyzed in analytical batch WG756173. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG754942 matrix spike/matrix spike duplicate analysis was performed on sample L733743-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Quality Control Summary SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

For analytical batch WG754943 matrix spike/matrix spike duplicate analysis was performed on sample L733743-30. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754944 matrix spike/matrix spike duplicate analysis was performed on sample L733743-51. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754945 matrix spike/matrix spike duplicate analysis was performed on sample L733743-102. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754946 matrix spike/matrix spike duplicate analysis was performed on sample L733743-123. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754947 matrix spike/matrix spike duplicate analysis was performed on sample L733743-153. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754948 matrix spike/matrix spike duplicate analysis was performed on sample L733743-159. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755413 matrix spike/matrix spike duplicate analysis was performed on sample L733020-03. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755883 matrix spike/matrix spike duplicate analysis was performed on sample L733869-15. The matrix spike recoveries were above laboratory control limits for TPH (GC/FID) Low Fraction. The relative percent difference exceeded laboratory limits for TPH (GC/FID) Low Fraction.

For analytical batch WG755923 matrix spike/matrix spike duplicate analysis was performed on sample L734685-03. The spiked sample was evaluated only for the parameters requested on that sample and did not require the parameters reported in this SDG. Therefore, no data is included in this report for this MS/D sample.

For analytical batch WG755923 matrix spike/matrix spike duplicate analysis was performed on sample L733743-69. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG756173 matrix spike/matrix spike duplicate analysis was performed on sample L733869-44. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Quality Control Summary SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

Volatile Organic Compounds by Method 8260B

Laboratory Control Sample

Samples L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, and -20 were analyzed in analytical batch WG754786. The laboratory control sample associated with these samples had all target analytes within method limits except for 1,1,1-Trichloroethane. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample L733743-21 was analyzed in analytical batch WG754787. The laboratory control sample associated with this sample was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, and -44 were analyzed in analytical batch WG754909. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch except for Bromomethane. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, and -65 were analyzed in analytical batch WG754914. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, and -86 were analyzed in analytical batch WG754915. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, and -105 were analyzed in analytical batch WG754916. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, and -125 were analyzed in analytical batch WG754917. The laboratory control sample associated with these samples had all target analytes within method limits except for Chloroethane and Naphthalene. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, and -141 were analyzed in analytical batch WG754918. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference exceeded laboratory limits for Acetone.

Samples L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, and -162 were analyzed in analytical batch WG754919. The laboratory control sample associated with these samples had all target analytes within method limits except for 2-Butanone (MEK). The relative percent difference exceeded laboratory limits for 2-Butanone (MEK).

Samples L733743-06, -07, -08, -09, -10, -11, and -12 were analyzed in analytical batch WG755340. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-106, -107, -110, and -115 were analyzed in analytical batch WG755673. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The

Quality Control Summary SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

relative percent difference exceeded laboratory limits for Bromomethane.

Samples L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, and -145 were analyzed in analytical batch WG755736. The laboratory control sample associated with these samples had all target analytes within method limits except for Bromomethane. The relative percent difference exceeded laboratory limits for Bromomethane.

Samples L733743-128, -135, -137, -138, -139, -142, -143, and -144 were analyzed in analytical batch WG755901. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-13, -14, -15, -26, -27, and -28 were analyzed in analytical batch WG756231. The laboratory control sample associated with these samples had all target analytes within method limits except for Chloroethane. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample L733743-97 was analyzed in analytical batch WG756371. The laboratory control sample associated with this sample was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-148, -150, -158, -159, and -160 were analyzed in analytical batch WG756413. The laboratory control sample associated with these samples had all target analytes within method limits except for 2-Butanone (MEK) and Acetone. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG754786 matrix spike/matrix spike duplicate analysis was performed on sample L733743-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754787 matrix spike/matrix spike duplicate analysis was performed on sample L733630-02. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754909 matrix spike/matrix spike duplicate analysis was performed on sample L733743-25. The matrix spike recoveries except for 2-Hexanone and 4-Methyl-2-pentanone (MIBK) and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754914 matrix spike/matrix spike duplicate analysis was performed on sample L733743-45. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754915 matrix spike/matrix spike duplicate analysis was performed on sample L733743-67. The matrix spike recoveries were above laboratory control limits for Bromoform and Chlorodibromomethane. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference exceeded laboratory limits for 1,1-Dichloroethene, Carbon disulfide, and Vinyl chloride.

For analytical batch WG754916 matrix spike/matrix spike duplicate analysis was performed on sample L733743-99. The matrix spike recoveries were within laboratory control limits for all target analytes reported from this batch. The relative percent difference exceeded laboratory limits for Bromomethane.

For analytical batch WG754917 matrix spike/matrix spike duplicate analysis was performed on sample L733743-115. The matrix spike recoveries were above laboratory control limits for 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-

Quality Control Summary SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

Trichloroethane, 1,2-Dibromoethane, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 2-Butanone (MEK), 2-Hexanone, 4-Methyl-2-pentanone (MIBK), Bromodichloromethane, Bromoform, Chlorobenzene, Chlorodibromomethane, Chloroform, cis-1,3-Dichloropropene, Naphthalene, n-Butylbenzene, o-Xylene, Styrene, trans-1,3-Dichloropropene, and Xylenes, Total. The matrix spike recoveries were below laboratory control limits for Benzene and Chloroethane. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference exceeded laboratory limits for 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,2,4-Trimethylbenzene, 1,2-Dibromoethane, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 2-Hexanone, 4-Methyl-2-pentanone (MIBK), Bromodichloromethane, Bromoform, Bromomethane, Carbon tetrachloride, Chlorobenzene, Chlorodibromomethane, Chloroform, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, m&p-Xylenes, Methyl tert-butyl ether, Naphthalene, n-Butylbenzene, o-Xylene, p-Isopropyltoluene, sec-Butylbenzene, Styrene, Tetrachloroethene, Toluene, trans-1,3-Dichloropropene, Trichloroethene, and Xylenes, Total.

For analytical batch WG754918 matrix spike/matrix spike duplicate analysis was performed on sample L733743-126. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754919 matrix spike/matrix spike duplicate analysis was performed on sample L733743-156. The matrix spike recoveries were above laboratory control limits for 2-Butanone (MEK). The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755340 matrix spike/matrix spike duplicate analysis was performed on sample L733584-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755673 matrix spike/matrix spike duplicate analysis was performed on sample L734213-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755736 matrix spike/matrix spike duplicate analysis was performed on sample L733686-01. The matrix spike recoveries were below laboratory control limits for Benzene. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755901 matrix spike/matrix spike duplicate analysis was performed on sample L733818-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG756231 matrix spike/matrix spike duplicate analysis was performed on sample L733847-05. The matrix spike recoveries were above laboratory control limits for Acetone and Naphthalene. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG756371 matrix spike/matrix spike duplicate analysis was performed on sample L734135-06. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Quality Control Summary SDG: L733743

For: ARCADIS US - TX
Project: Navajo Refining Company - Artesia,
January 27, 2015

For analytical batch WG756413 matrix spike/matrix spike duplicate analysis was performed on sample L733743-158. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Semi-Volatile Organic Compounds by Method 8270C

Laboratory Control Sample

Samples L733743-01, -02, -03, -04, and -05 were analyzed in analytical batch WG754898. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference exceeded laboratory limits for Benzo(a)pyrene.

Samples L733743-06, -07, -08, -09, and -11 were analyzed in analytical batch WG754905. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-10, -12, -13, -14, and -15 were analyzed in analytical batch WG755104. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

Precision for batch WG754898 was evaluated using the LCS/LCSD. The RPDs exceeded laboratory control limits for Benzo(a)pyrene. The other target analytes were within limits

For analytical batch WG754905 matrix spike/matrix spike duplicate analysis was performed on sample L733682-02. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Precision for batch WG755104 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Diesel Range Organics by Method 8015

Laboratory Control Sample

Samples L733743-43, -44, -45, -48, -49, -50, -51, -52, -53, -57, -59, -60, -63, -66, -69, -70, -71, -72, -73, and -40 were analyzed in analytical batch WG755117. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-100, -74, -75, -77, -80, -81, -82, -83, -84, -85, -88, -91, -92, -98, -101, -102, -103, -105, -106, and -108 were analyzed in analytical batch WG755118. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Quality Control Summary

SDG: L733743

For: ARCADIS US - TX

Project: Navajo Refining Company - Artesia,

January 27, 2015

Samples L733743-27, -28, -30, -31, -32, -33, -35, -36, -39, -37, -41, -42, -46, -47, -54, -55, -58, -61, -62, and -67 were analyzed in analytical batch WG755119. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-78, -79, -86, -87, -90, -93, -94, -95, -96, -97, -99, -104, -107, -111, -114, -117, -119, -120, -121, and -125 were analyzed in analytical batch WG755121. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-109, -110, -112, -113, -115, -116, -126, -127, -128, -129, -131, -132, -139, -141, -142, -143, -146, -147, -158, and -159 were analyzed in analytical batch WG755122. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-01, -02, -03, -04, and -05 were analyzed in analytical batch WG755177. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-118, -122, -123, -124, -130, -133, -135, -136, -137, -138, -140, -144, -145, -148, -149, -150, -151, -152, -153, and -154 were analyzed in analytical batch WG755478. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-155, -156, -157, and -160 were analyzed in analytical batch WG755492. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -29, -34, and -38 were analyzed in analytical batch WG755545. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

Precision for batch WG755117 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755118 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755119 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755121 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755122 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755177 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Quality Control Summary SDG: L733743

For: ARCADIS US - TX
Project: Navajo Refining Company - Artesia,
January 27, 2015

Precision for batch WG755478 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755492 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755545 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit except for WG755177.

Pam
Langford



Digitally signed by Pam Langford
DN: cn=Pam Langford, o, ou,
email=plangford@escbiosciences.com, c=US
Date: 2015.01.28 16:47:59 -0500

ESC Representative
ESC Lab Sciences



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Report Summary

Tuesday January 27, 2015

Report Number: L733743

Samples Received: 11/14/14

Client Project: TX000836.0008.00004

Description: Navajo Refining Company - Artesia, NM

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Pam Langford , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BIO041, ND - R-140. NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

This report may not be reproduced, except in full, without written approval from ESC Lab Sciences. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Case Narrative

Tuesday January 27, 2015

Report Number: L733743

Samples Received: 11/14/14

Client Project: TX000836.0008.00004

Description: Navajo Refining Company - Artesia, NM

Other Comments

Concentrations above the laboratory reporting limit for DRO/ORO were noted in the method blank associated with samples -01 through -05. These samples were reextracted and reanalyzed, although samples -02 through -05 were below the laboratory detection limit in the initial analysis. The confirmation analysis performed outside of the method specified holding time confirms the initial in-hold results. Re-extraction was also performed for the DRO/ORO analysis of sample -88 due to the exceedingly high surrogate recovery in the initial analysis. The re-extraction/reanalysis was performed outside holding time for the method, and the surrogate recovery was within range. However, while concentrations were seen and chromatographic comparisons consistent in both analyses for sample -88, a greater than 40% difference was seen between the two results. The results obtained within holding time for DRO/ORO analysis is reported as primary for all samples discussed above.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-2A
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 14:40

ESC Sample # : L733743-25
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	4900000	5200	100000	ug/l		300.0	11/22/14	100
Fluoride	2300	9.9	100	ug/l		300.0	11/22/14	1
Sulfate	3900000	7700	500000	ug/l		300.0	11/22/14	100
Nitrate-Nitrite	1300	20.	100	ug/l		353.2	11/17/14	1
Dissolved Solids	13000000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	48.	1.2	10.	ug/l		6020	11/18/14	5
Barium	26.	1.8	25.	ug/l		6020	11/18/14	5
Chromium	7.8	2.7	5.0	ug/l		6020	11/18/14	5
Iron	3100	250	500	ug/l		6020	11/18/14	5
Lead	U	1.2	10.	ug/l		6020	11/18/14	5
Manganese	1500	1.2	25.	ug/l		6020	11/18/14	5
Potassium	5800	180	5000	ug/l		6020	11/18/14	5
Selenium	5.1	1.9	10.	ug/l	J	6020	11/18/14	5
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/18/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	109.			% Rec.		8015D/G	11/18/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/21/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/21/14	1
Bromomethane	U	0.87	5.0	ug/l	J4	8260B	11/21/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/21/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/21/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/21/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/21/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/21/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/21/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/21/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/21/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41
 L733743-25 (GFAA METALS) - Diluted due to matrix.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-2A
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 14:40

ESC Sample # : L733743-25
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/21/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/21/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/21/14	1
2-Hexanone	U	3.8	10.	ug/l	J5	8260B	11/21/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/21/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l	J5	8260B	11/21/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/21/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/21/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/21/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/21/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/21/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/21/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/21/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/21/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/21/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/21/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/21/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/21/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/21/14	1
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	11/21/14	1
Dibromofluoromethane	92.5			% Rec.		8260B	11/21/14	1
4-Bromofluorobenzene	90.5			% Rec.		8260B	11/21/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	250	22.	100	ug/l		8015	11/20/14	1
C28-C40 Oil Range	22.	12.	100	ug/l	J	8015	11/20/14	1
Surrogate Recovery								
o-Terphenyl	134.			% Rec.		8015	11/20/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41
 L733743-25 (GFAA METALS) - Diluted due to matrix.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-3
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 08:25

ESC Sample # : L733743-26
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	2000000	5200	100000	ug/l		300.0	11/22/14	100
Fluoride	1700	9.9	100	ug/l		300.0	11/22/14	1
Sulfate	2600000	7700	500000	ug/l		300.0	11/22/14	100
Nitrate-Nitrite	4800	20.	100	ug/l		353.2	11/17/14	1
Dissolved Solids	7200000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	35.	1.2	10.	ug/l		6020	11/18/14	5
Barium	22.	1.8	25.	ug/l	J	6020	11/18/14	5
Calcium	7600000	920	20000	ug/l		6020	11/18/14	20
Chromium	8.1	2.7	5.0	ug/l		6020	11/18/14	5
Iron	570	250	500	ug/l		6020	11/18/14	5
Lead	U	1.2	10.	ug/l		6020	11/18/14	5
Manganese	2200	1.2	25.	ug/l		6020	11/18/14	5
Potassium	6800	180	5000	ug/l		6020	11/18/14	5
Selenium	19.	1.9	10.	ug/l		6020	11/18/14	5
Sodium	1200000	2200	20000	ug/l		6020	11/18/14	20
TPH (GC/FID) Low Fraction	540	31.	100	ug/l		8015D/G	11/18/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	111.			% Rec.		8015D/G	11/18/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/22/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/22/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/22/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/22/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/22/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/22/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/22/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/22/14	1
Chloroethane	U	0.45	5.0	ug/l	J4	8260B	11/22/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/22/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/22/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/22/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/22/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41
 L733743-26 (GFAA METALS) - Diluted due to matrix.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-26

Sample ID : MW-3

Site ID : EVAPORATION PONDS

Collected By : SU/HMI Team
 Collection Date : 11/12/14 08:25

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/22/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/22/14	1
Isopropylbenzene	0.34	0.33	1.0	ug/l	J	8260B	11/22/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/22/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/22/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/22/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/22/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/22/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/22/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/22/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/22/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/22/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/22/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/22/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/22/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/22/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/22/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/22/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/22/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/22/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/22/14	1
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	11/22/14	1
Dibromofluoromethane	95.4			% Rec.		8260B	11/22/14	1
4-Bromofluorobenzene	105.			% Rec.		8260B	11/22/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	9100	22.	100	ug/l		8015	11/20/14	1
C28-C40 Oil Range	3200	12.	100	ug/l		8015	11/20/14	1
Surrogate Recovery								
o-Terphenyl	99.1			% Rec.		8015	11/20/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41
 L733743-26 (GFAA METALS) - Diluted due to matrix.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-4A
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 10:25

ESC Sample # : L733743-27
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	1400000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	1600	9.9	100	ug/l		300.0	11/22/14	1
Sulfate	2500000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	960	20.	100	ug/l		353.2	11/17/14	1
Dissolved Solids	5700000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	57.	1.2	10.	ug/l		6020	11/18/14	5
Barium	14.	1.8	25.	ug/l	J	6020	11/18/14	5
Calcium	690000	920	20000	ug/l		6020	11/18/14	20
Chromium	U	2.7	5.0	ug/l		6020	11/18/14	5
Iron	820	250	500	ug/l		6020	11/18/14	5
Lead	U	1.2	10.	ug/l		6020	11/18/14	5
Manganese	2700	1.2	25.	ug/l		6020	11/18/14	5
Potassium	5100	180	5000	ug/l		6020	11/18/14	5
Selenium	U	1.9	10.	ug/l		6020	11/18/14	5
Sodium	1000000	2200	20000	ug/l		6020	11/18/14	20
TPH (GC/FID) Low Fraction	350	31.	100	ug/l		8015D/G	11/18/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	110.			% Rec.		8015D/G	11/18/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/22/14	1
Benzene	1.3	0.33	1.0	ug/l		8260B	11/22/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/22/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/22/14	1
sec-Butylbenzene	0.41	0.36	1.0	ug/l	J	8260B	11/22/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/22/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/22/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/22/14	1
Chloroethane	U	0.45	5.0	ug/l	J4	8260B	11/22/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/22/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/22/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/22/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/22/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41
 L733743-27 (GFAA METALS) - Diluted due to matrix.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-27

Sample ID : MW-4A

Site ID : EVAPORATION PONDS

Collected By : SU/HMI Team
 Collection Date : 11/13/14 10:25

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/22/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/22/14	1
Isopropylbenzene	2.6	0.33	1.0	ug/l		8260B	11/22/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/22/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/22/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/22/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/22/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/22/14	1
Methyl tert-butyl ether	0.44	0.37	1.0	ug/l	J	8260B	11/22/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/22/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/22/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/22/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/22/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/22/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/22/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/22/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/22/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/22/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/22/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/22/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/22/14	1
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	11/22/14	1
Dibromofluoromethane	95.8			% Rec.		8260B	11/22/14	1
4-Bromofluorobenzene	105.			% Rec.		8260B	11/22/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	3800	22.	100	ug/l		8015	11/19/14	1
C28-C40 Oil Range	680	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	121.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41
 L733743-27 (GFAA METALS) - Diluted due to matrix.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-5A
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 11:05

ESC Sample # : L733743-28
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	3300000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	1900	9.9	100	ug/l		300.0	11/22/14	1
Sulfate	8100000	7700	500000	ug/l		300.0	11/24/14	100
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/17/14	1
Dissolved Solids	16000000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	64.	1.2	10.	ug/l		6020	11/18/14	5
Barium	14.	1.8	25.	ug/l	J	6020	11/18/14	5
Calcium	580000	920	20000	ug/l		6020	11/18/14	20
Chromium	U	2.7	5.0	ug/l		6020	11/18/14	5
Iron	4400	250	500	ug/l		6020	11/18/14	5
Lead	U	1.2	10.	ug/l		6020	11/18/14	5
Manganese	2000	1.2	25.	ug/l		6020	11/18/14	5
Potassium	6400	180	5000	ug/l		6020	11/18/14	5
Selenium	4.0	1.9	10.	ug/l	J	6020	11/18/14	5
Sodium	4200000	5500	50000	ug/l		6020	11/18/14	50
TPH (GC/FID) Low Fraction	900	31.	100	ug/l		8015D/G	11/18/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	109.			% Rec.		8015D/G	11/18/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/22/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/22/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/22/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/22/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/22/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/22/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/22/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/22/14	1
Chloroethane	U	0.45	5.0	ug/l	J4	8260B	11/22/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/22/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/22/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/22/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/22/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41
 L733743-28 (GFAA METALS) - Diluted due to matrix.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-28

Sample ID : MW-5A

Site ID : EVAPORATION PONDS

Collected By : SU/HMI Team
 Collection Date : 11/13/14 11:05

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/22/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/22/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/22/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/22/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/22/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/22/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/22/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/22/14	1
Methyl tert-butyl ether	0.81	0.37	1.0	ug/l	J	8260B	11/22/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/22/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/22/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/22/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/22/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/22/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/22/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/22/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/22/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/22/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/22/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/22/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/22/14	1
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	11/22/14	1
Dibromofluoromethane	96.5			% Rec.		8260B	11/22/14	1
4-Bromofluorobenzene	108.			% Rec.		8260B	11/22/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	2000	22.	100	ug/l		8015	11/19/14	1
C28-C40 Oil Range	340	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	115.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41
 L733743-28 (GFAA METALS) - Diluted due to matrix.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-7A
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 12:55

ESC Sample # : L733743-29
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	3600000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	690	9.9	100	ug/l		300.0	11/22/14	1
Sulfate	4100000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	U	20.	100	ug/l	J6	353.2	11/17/14	1
Dissolved Solids	11000000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	21.	1.2	10.	ug/l		6020	11/18/14	5
Barium	18.	1.8	25.	ug/l	J	6020	11/18/14	5
Calcium	760000	920	20000	ug/l		6020	11/18/14	20
Chromium	2.7	2.7	5.0	ug/l	J	6020	11/18/14	5
Iron	1300	250	500	ug/l		6020	11/18/14	5
Lead	U	1.2	10.	ug/l		6020	11/18/14	5
Manganese	1500	1.2	25.	ug/l		6020	11/18/14	5
Potassium	5200	180	5000	ug/l		6020	11/18/14	5
Selenium	U	1.9	10.	ug/l		6020	11/18/14	5
Sodium	2600000	5500	50000	ug/l		6020	11/18/14	50
TPH (GC/FID) Low Fraction	360	31.	100	ug/l		8015D/G	11/21/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.8			% Rec.		8015D/G	11/21/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/21/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/21/14	1
Bromomethane	U	0.87	5.0	ug/l	J4	8260B	11/21/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/21/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/21/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/21/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/21/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/21/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/21/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/21/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41
 L733743-29 (GFAA METALS) - Diluted due to matrix.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-29

Sample ID : MW-7A

Site ID : EVAPORATION PONDS

Collected By : SU/HMI Team
 Collection Date : 11/12/14 12:55

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/21/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/21/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/21/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/21/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/21/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/21/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/21/14	1
Methyl tert-butyl ether	2.0	0.37	1.0	ug/l		8260B	11/21/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/21/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/21/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/21/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/21/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/21/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/21/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/21/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/21/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/21/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/21/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/21/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/21/14	1
Surrogate Recovery								
Toluene-d8	100.			% Rec.		8260B	11/21/14	1
Dibromofluoromethane	93.5			% Rec.		8260B	11/21/14	1
4-Bromofluorobenzene	94.5			% Rec.		8260B	11/21/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	1100	22.	100	ug/l		8015	11/20/14	1
C28-C40 Oil Range	330	12.	100	ug/l		8015	11/20/14	1
Surrogate Recovery								
o-Terphenyl	121.			% Rec.		8015	11/20/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41
 L733743-29 (GFAA METALS) - Diluted due to matrix.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-10
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 09:05

ESC Sample # : L733743-30
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	1700000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	880	9.9	100	ug/l	J6	300.0	11/22/14	1
Sulfate	2800000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	230	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	5900000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	19.	0.25	2.0	ug/l		6020	11/20/14	1
Barium	21.	0.36	5.0	ug/l		6020	11/20/14	1
Calcium	750000	920	20000	ug/l	V	6020	12/02/14	20
Chromium	0.92	0.54	1.0	ug/l	JB	6020	11/20/14	1
Iron	140	50.	100	ug/l		6020	11/20/14	1
Lead	0.98	0.24	2.0	ug/l	J	6020	11/20/14	1
Manganese	2400	0.25	5.0	ug/l	V	6020	11/20/14	1
Potassium	4300	37.	1000	ug/l		6020	11/20/14	1
Selenium	1.5	0.38	2.0	ug/l	J	6020	11/20/14	1
Sodium	1200000	2200	20000	ug/l	V	6020	12/02/14	20
TPH (GC/FID) Low Fraction	910	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	97.5			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/21/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/21/14	1
Bromomethane	U	0.87	5.0	ug/l	J4	8260B	11/21/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/21/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/21/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/21/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/21/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/21/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/21/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/21/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-10
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 09:05

ESC Sample # : L733743-30
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/21/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/21/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/21/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/21/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/21/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/21/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/21/14	1
Methyl tert-butyl ether	1.8	0.37	1.0	ug/l		8260B	11/21/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/21/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/21/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/21/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/21/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/21/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/21/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/21/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/21/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/21/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/21/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/21/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/21/14	1
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	11/21/14	1
Dibromofluoromethane	92.3			% Rec.		8260B	11/21/14	1
4-Bromofluorobenzene	93.6			% Rec.		8260B	11/21/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	2200	22.	100	ug/l		8015	11/19/14	1
C28-C40 Oil Range	300	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	124.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-18A
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 14:10

ESC Sample # : L733743-31
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	12000000	10000	200000	ug/l		300.0	11/24/14	200
Fluoride	U	9.9	100	ug/l		300.0	11/22/14	1
Sulfate	10000000	15000	1000000	ug/l		300.0	11/24/14	200
Cyanide	U	1.8	5.0	ug/l		9012B	11/21/14	1
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	32000000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	3.4	0.25	2.0	ug/l		6020	11/20/14	1
Barium	16.	0.36	5.0	ug/l		6020	11/20/14	1
Calcium	850000	4600	100000	ug/l		6020	12/02/14	100
Chromium	0.80	0.54	1.0	ug/l	JB	6020	11/20/14	1
Iron	1100	50.	100	ug/l		6020	11/20/14	1
Lead	0.30	0.24	2.0	ug/l	J	6020	11/20/14	1
Manganese	76.	0.25	5.0	ug/l		6020	11/20/14	1
Nickel	6.5	0.35	2.0	ug/l	B	6020	11/20/14	1
Potassium	54000	37.	1000	ug/l		6020	11/20/14	1
Selenium	6.9	0.38	2.0	ug/l		6020	11/20/14	1
Sodium	7500000	11000	100000	ug/l		6020	12/02/14	100
Vanadium	4.7	0.18	5.0	ug/l	J	6020	11/20/14	1
Mercury	U	0.049	0.20	ug/l		7470A	11/18/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/21/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/21/14	1
Bromomethane	U	0.87	5.0	ug/l	J4	8260B	11/21/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/21/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/21/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/21/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/21/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/21/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/21/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/21/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-18A
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 14:10

ESC Sample # : L733743-31
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/21/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/21/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/21/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/21/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/21/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/21/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/21/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/21/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/21/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/21/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/21/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/21/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/21/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/21/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/21/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/21/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/21/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/21/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/21/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/21/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/21/14	1
Surrogate Recovery								
Toluene-d8	99.6			% Rec.		8260B	11/21/14	1
Dibromofluoromethane	92.6			% Rec.		8260B	11/21/14	1
4-Bromofluorobenzene	89.5			% Rec.		8260B	11/21/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	74.	22.	100	ug/l	J	8015	11/19/14	1
C28-C40 Oil Range	90.	12.	100	ug/l	J	8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	113.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-22A
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 15:10

ESC Sample # : L733743-32
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	2000000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	580	9.9	100	ug/l		300.0	11/22/14	1
Sulfate	2600000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	6600000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	60.	0.25	2.0	ug/l		6020	11/20/14	1
Barium	19.	0.36	5.0	ug/l		6020	11/20/14	1
Calcium	610000	920	20000	ug/l		6020	12/02/14	20
Chromium	0.81	0.54	1.0	ug/l	JB	6020	11/20/14	1
Iron	6900	50.	100	ug/l		6020	11/20/14	1
Lead	U	0.24	2.0	ug/l		6020	11/20/14	1
Manganese	6000	5.0	100	ug/l		6020	12/02/14	20
Potassium	3900	37.	1000	ug/l		6020	11/20/14	1
Selenium	1.6	0.38	2.0	ug/l	J	6020	11/20/14	1
Sodium	1400000	2200	20000	ug/l		6020	12/02/14	20
TPH (GC/FID) Low Fraction	3300	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.2			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/21/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/21/14	1
Bromomethane	U	0.87	5.0	ug/l	J4	8260B	11/21/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/21/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/21/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/21/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/21/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/21/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/21/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/21/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-22A
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 15:10

ESC Sample # : L733743-32
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/21/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/21/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/21/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/21/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/21/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/21/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/21/14	1
Methyl tert-butyl ether	8.0	0.37	1.0	ug/l		8260B	11/21/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/21/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/21/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/21/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/21/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/21/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/21/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/21/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/21/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/21/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/21/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/21/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/21/14	1
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	11/21/14	1
Dibromofluoromethane	91.5			% Rec.		8260B	11/21/14	1
4-Bromofluorobenzene	91.5			% Rec.		8260B	11/21/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	5600	22.	100	ug/l		8015	11/19/14	1
C28-C40 Oil Range	710	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	118.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

Sample ID : MW-70

Collected By : SU/HMI Team
 Collection Date : 11/13/14 13:15

ESC Sample # : L733743-33

Site ID : EVAPORATION PONDS

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Arsenic	21.	0.25	2.0	ug/l		6020	11/20/14	1
Barium	20.	0.36	5.0	ug/l		6020	11/20/14	1
Calcium	700000	920	20000	ug/l		6020	12/02/14	20
Chromium	0.55	0.54	1.0	ug/l	J	6020	11/24/14	1
Iron	2500	50.	100	ug/l		6020	11/20/14	1
Lead	U	0.24	2.0	ug/l		6020	11/20/14	1
Manganese	730	0.25	5.0	ug/l		6020	11/20/14	1
Potassium	5500	37.	1000	ug/l		6020	11/20/14	1
Selenium	0.44	0.38	2.0	ug/l	J	6020	11/20/14	1
Sodium	730000	2200	20000	ug/l		6020	12/02/14	20
TPH (GC/FID) Low Fraction	1200	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.2			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/21/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/21/14	1
Bromomethane	U	0.87	5.0	ug/l	J4	8260B	11/21/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/21/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/21/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/21/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/21/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/21/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/21/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/21/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/21/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/21/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/21/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/21/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-33

Sample ID : MW-70

Site ID : EVAPORATION PONDS

Collected By : SU/HMI Team
 Collection Date : 11/13/14 13:15

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
2-Hexanone	U	3.8	10.	ug/l		8260B	11/21/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/21/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/21/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/21/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/21/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/21/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/21/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/21/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/21/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/21/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/21/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/21/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/21/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/21/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/21/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/21/14	1
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	11/21/14	1
Dibromofluoromethane	92.8			% Rec.		8260B	11/21/14	1
4-Bromofluorobenzene	92.7			% Rec.		8260B	11/21/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	720	22.	100	ug/l		8015	11/19/14	1
C28-C40 Oil Range	120	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	120.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-74
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 14:10

ESC Sample # : L733743-34
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	1600000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	6400	9.9	100	ug/l		300.0	11/22/14	1
Sulfate	4400000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	420000	990	5000	ug/l		353.2	11/18/14	50
Dissolved Solids	8700000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	62.	0.25	2.0	ug/l		6020	11/20/14	1
Barium	14.	0.36	5.0	ug/l		6020	11/20/14	1
Calcium	670000	2300	50000	ug/l		6020	12/02/14	50
Chromium	0.74	0.54	1.0	ug/l	JB	6020	11/20/14	1
Iron	110	50.	100	ug/l		6020	11/20/14	1
Lead	U	0.24	2.0	ug/l		6020	11/20/14	1
Manganese	880	0.25	5.0	ug/l		6020	11/20/14	1
Potassium	45000	37.	1000	ug/l		6020	11/20/14	1
Selenium	250	0.38	2.0	ug/l		6020	11/20/14	1
Sodium	2300000	5500	50000	ug/l		6020	12/02/14	50
TPH (GC/FID) Low Fraction	680	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.1			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	11.	10.	50.	ug/l	J	8260B	11/21/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/21/14	1
Bromomethane	U	0.87	5.0	ug/l	J4	8260B	11/21/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/21/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/21/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/21/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/21/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/21/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/21/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/21/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-34

Sample ID : MW-74

Site ID : EVAPORATION PONDS

Collected By : SU/HMI Team
 Collection Date : 11/12/14 14:10

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/21/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/21/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/21/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/21/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/21/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/21/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/21/14	1
Methyl tert-butyl ether	0.53	0.37	1.0	ug/l	J	8260B	11/21/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/21/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/21/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/21/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/21/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/21/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/21/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2,4-Trimethylbenzene	1.2	0.37	1.0	ug/l		8260B	11/21/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/21/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/21/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/21/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/21/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/21/14	1
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	11/21/14	1
Dibromofluoromethane	93.2			% Rec.		8260B	11/21/14	1
4-Bromofluorobenzene	92.5			% Rec.		8260B	11/21/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	30000	440	2000	ug/l		8015	11/21/14	20
C28-C40 Oil Range	3400	12.	100	ug/l		8015	11/20/14	1
Surrogate Recovery								
o-Terphenyl	118.			% Rec.	J7	8015	11/21/14	20

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-75
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 12:05

ESC Sample # : L733743-35
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	1400000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	6900	9.9	100	ug/l		300.0	11/22/14	1
Sulfate	2400000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	5700000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	350	0.25	2.0	ug/l		6020	11/20/14	1
Barium	16.	0.36	5.0	ug/l		6020	11/20/14	1
Calcium	410000	920	20000	ug/l		6020	12/02/14	20
Chromium	1.9	0.54	1.0	ug/l		6020	11/24/14	1
Iron	4200	50.	100	ug/l		6020	11/20/14	1
Lead	0.29	0.24	2.0	ug/l	J	6020	11/20/14	1
Manganese	960	0.25	5.0	ug/l		6020	11/20/14	1
Potassium	20000	37.	1000	ug/l		6020	11/20/14	1
Selenium	2.5	0.38	2.0	ug/l		6020	11/20/14	1
Sodium	1500000	2200	20000	ug/l		6020	12/02/14	20
TPH (GC/FID) Low Fraction	2500	160	500	ug/l		8015D/G	11/20/14	5
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	99.0			% Rec.		8015D/G	11/20/14	5
Volatile Organics								
Acetone	U	50.	250	ug/l		8260B	11/21/14	5
Benzene	U	1.6	5.0	ug/l		8260B	11/21/14	5
Bromodichloromethane	U	1.9	5.0	ug/l		8260B	11/21/14	5
Bromoform	U	2.3	5.0	ug/l		8260B	11/21/14	5
Bromomethane	U	4.3	25.	ug/l	J4	8260B	11/21/14	5
n-Butylbenzene	U	1.8	5.0	ug/l		8260B	11/21/14	5
sec-Butylbenzene	U	1.8	5.0	ug/l		8260B	11/21/14	5
Carbon disulfide	U	1.4	5.0	ug/l		8260B	11/21/14	5
Carbon tetrachloride	U	1.9	5.0	ug/l		8260B	11/21/14	5
Chlorobenzene	U	1.7	5.0	ug/l		8260B	11/21/14	5
Chlorodibromomethane	U	1.6	5.0	ug/l		8260B	11/21/14	5
Chloroethane	U	2.3	25.	ug/l		8260B	11/21/14	5
Chloroform	U	1.6	25.	ug/l		8260B	11/21/14	5
Chloromethane	U	1.4	13.	ug/l		8260B	11/21/14	5
1,2-Dibromoethane	U	1.9	5.0	ug/l		8260B	11/21/14	5
1,1-Dichloroethane	U	1.3	5.0	ug/l		8260B	11/21/14	5
1,2-Dichloroethane	U	1.8	5.0	ug/l		8260B	11/21/14	5
1,1-Dichloroethene	U	2.0	5.0	ug/l		8260B	11/21/14	5
cis-1,2-Dichloroethene	U	1.3	5.0	ug/l		8260B	11/21/14	5

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-75
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 12:05

ESC Sample # : L733743-35
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	2.0	5.0	ug/l		8260B	11/21/14	5
1,2-Dichloropropane	U	1.5	5.0	ug/l		8260B	11/21/14	5
cis-1,3-Dichloropropene	U	2.1	5.0	ug/l		8260B	11/21/14	5
trans-1,3-Dichloropropene	U	2.1	5.0	ug/l		8260B	11/21/14	5
Ethylbenzene	U	1.9	5.0	ug/l		8260B	11/21/14	5
Isopropylbenzene	12.	1.6	5.0	ug/l		8260B	11/21/14	5
p-Isopropyltoluene	U	1.8	5.0	ug/l		8260B	11/21/14	5
2-Butanone (MEK)	U	20.	50.	ug/l		8260B	11/21/14	5
2-Hexanone	U	19.	50.	ug/l		8260B	11/21/14	5
Methylene Chloride	U	5.0	25.	ug/l		8260B	11/21/14	5
4-Methyl-2-pentanone (MIBK)	U	11.	50.	ug/l		8260B	11/21/14	5
Methyl tert-butyl ether	2.8	1.8	5.0	ug/l	J	8260B	11/21/14	5
Naphthalene	U	5.0	25.	ug/l		8260B	11/21/14	5
n-Propylbenzene	U	1.7	5.0	ug/l		8260B	11/21/14	5
Styrene	U	1.5	5.0	ug/l		8260B	11/21/14	5
1,1,1,2-Tetrachloroethane	U	1.9	5.0	ug/l		8260B	11/21/14	5
1,1,2,2-Tetrachloroethane	U	0.65	5.0	ug/l		8260B	11/21/14	5
Tetrachloroethene	U	1.9	5.0	ug/l		8260B	11/21/14	5
Toluene	U	3.9	25.	ug/l		8260B	11/21/14	5
1,1,1-Trichloroethane	U	1.6	5.0	ug/l		8260B	11/21/14	5
1,1,2-Trichloroethane	U	1.9	5.0	ug/l		8260B	11/21/14	5
Trichloroethene	U	2.0	5.0	ug/l		8260B	11/21/14	5
1,2,4-Trimethylbenzene	U	1.9	5.0	ug/l		8260B	11/21/14	5
1,3,5-Trimethylbenzene	U	1.9	5.0	ug/l		8260B	11/21/14	5
Vinyl chloride	U	1.3	5.0	ug/l		8260B	11/21/14	5
o-Xylene	U	1.7	5.0	ug/l		8260B	11/21/14	5
m&p-Xylene	U	3.6	10.	ug/l		8260B	11/21/14	5
Xylenes, Total	U	5.3	15.	ug/l		8260B	11/21/14	5
Surrogate Recovery								
Toluene-d8	99.9			% Rec.		8260B	11/21/14	1
Dibromofluoromethane	90.5			% Rec.		8260B	11/21/14	1
4-Bromofluorobenzene	91.5			% Rec.		8260B	11/21/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	13000	440	2000	ug/l		8015	11/21/14	20
C28-C40 Oil Range	3400	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	128.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-76
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 14:05

ESC Sample # : L733743-36
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	1300000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	3000	9.9	100	ug/l		300.0	11/22/14	1
Sulfate	2800000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	6000000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	100	0.25	2.0	ug/l		6020	11/20/14	1
Barium	18.	0.36	5.0	ug/l		6020	11/20/14	1
Calcium	610000	920	20000	ug/l		6020	12/02/14	20
Chromium	2.7	0.54	1.0	ug/l		6020	11/24/14	1
Iron	5100	50.	100	ug/l		6020	11/20/14	1
Lead	0.46	0.24	2.0	ug/l	J	6020	11/20/14	1
Manganese	1800	0.25	5.0	ug/l		6020	11/20/14	1
Potassium	31000	37.	1000	ug/l		6020	11/20/14	1
Selenium	4.9	0.38	2.0	ug/l		6020	11/20/14	1
Sodium	1100000	2200	20000	ug/l		6020	12/02/14	20
TPH (GC/FID) Low Fraction	1100	160	500	ug/l		8015D/G	11/20/14	5
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	99.2			% Rec.		8015D/G	11/20/14	5
Volatile Organics								
Acetone	U	50.	250	ug/l		8260B	11/21/14	5
Benzene	4.9	1.6	5.0	ug/l	J	8260B	11/21/14	5
Bromodichloromethane	U	1.9	5.0	ug/l		8260B	11/21/14	5
Bromoform	U	2.3	5.0	ug/l		8260B	11/21/14	5
Bromomethane	U	4.3	25.	ug/l	J4	8260B	11/21/14	5
n-Butylbenzene	U	1.8	5.0	ug/l		8260B	11/21/14	5
sec-Butylbenzene	U	1.8	5.0	ug/l		8260B	11/21/14	5
Carbon disulfide	U	1.4	5.0	ug/l		8260B	11/21/14	5
Carbon tetrachloride	U	1.9	5.0	ug/l		8260B	11/21/14	5
Chlorobenzene	U	1.7	5.0	ug/l		8260B	11/21/14	5
Chlorodibromomethane	U	1.6	5.0	ug/l		8260B	11/21/14	5
Chloroethane	U	2.3	25.	ug/l		8260B	11/21/14	5
Chloroform	U	1.6	25.	ug/l		8260B	11/21/14	5
Chloromethane	U	1.4	13.	ug/l		8260B	11/21/14	5
1,2-Dibromoethane	U	1.9	5.0	ug/l		8260B	11/21/14	5
1,1-Dichloroethane	U	1.3	5.0	ug/l		8260B	11/21/14	5
1,2-Dichloroethane	U	1.8	5.0	ug/l		8260B	11/21/14	5
1,1-Dichloroethene	U	2.0	5.0	ug/l		8260B	11/21/14	5
cis-1,2-Dichloroethene	U	1.3	5.0	ug/l		8260B	11/21/14	5

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-76
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 14:05

ESC Sample # : L733743-36
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	2.0	5.0	ug/l		8260B	11/21/14	5
1,2-Dichloropropane	U	1.5	5.0	ug/l		8260B	11/21/14	5
cis-1,3-Dichloropropene	U	2.1	5.0	ug/l		8260B	11/21/14	5
trans-1,3-Dichloropropene	U	2.1	5.0	ug/l		8260B	11/21/14	5
Ethylbenzene	U	1.9	5.0	ug/l		8260B	11/21/14	5
Isopropylbenzene	20.	1.6	5.0	ug/l		8260B	11/21/14	5
p-Isopropyltoluene	U	1.8	5.0	ug/l		8260B	11/21/14	5
2-Butanone (MEK)	U	20.	50.	ug/l		8260B	11/21/14	5
2-Hexanone	U	19.	50.	ug/l		8260B	11/21/14	5
Methylene Chloride	U	5.0	25.	ug/l		8260B	11/21/14	5
4-Methyl-2-pentanone (MIBK)	U	11.	50.	ug/l		8260B	11/21/14	5
Methyl tert-butyl ether	13.	1.8	5.0	ug/l		8260B	11/21/14	5
Naphthalene	U	5.0	25.	ug/l		8260B	11/21/14	5
n-Propylbenzene	U	1.7	5.0	ug/l		8260B	11/21/14	5
Styrene	U	1.5	5.0	ug/l		8260B	11/21/14	5
1,1,1,2-Tetrachloroethane	U	1.9	5.0	ug/l		8260B	11/21/14	5
1,1,2,2-Tetrachloroethane	U	0.65	5.0	ug/l		8260B	11/21/14	5
Tetrachloroethene	U	1.9	5.0	ug/l		8260B	11/21/14	5
Toluene	U	3.9	25.	ug/l		8260B	11/21/14	5
1,1,1-Trichloroethane	U	1.6	5.0	ug/l		8260B	11/21/14	5
1,1,2-Trichloroethane	U	1.9	5.0	ug/l		8260B	11/21/14	5
Trichloroethene	U	2.0	5.0	ug/l		8260B	11/21/14	5
1,2,4-Trimethylbenzene	2.6	1.9	5.0	ug/l	J	8260B	11/21/14	5
1,3,5-Trimethylbenzene	U	1.9	5.0	ug/l		8260B	11/21/14	5
Vinyl chloride	U	1.3	5.0	ug/l		8260B	11/21/14	5
o-Xylene	U	1.7	5.0	ug/l		8260B	11/21/14	5
m&p-Xylene	U	3.6	10.	ug/l		8260B	11/21/14	5
Xylenes, Total	U	5.3	15.	ug/l		8260B	11/21/14	5
Surrogate Recovery								
Toluene-d8	99.8			% Rec.		8260B	11/21/14	1
Dibromofluoromethane	89.6			% Rec.		8260B	11/21/14	1
4-Bromofluorobenzene	91.3			% Rec.		8260B	11/21/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	23000	440	2000	ug/l		8015	11/21/14	20
C28-C40 Oil Range	7100	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	142.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-37

Sample ID : MW-77

Site ID : EVAPORATION PONDS

Collected By : SU/HMI Team
 Collection Date : 11/13/14 13:20

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	500000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	2700	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	4100000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	8200000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	54.	1.2	10.	ug/l		6020	11/20/14	5
Barium	13.	1.8	25.	ug/l	J	6020	11/20/14	5
Calcium	630000	920	20000	ug/l		6020	12/02/14	20
Chromium	9.7	0.54	1.0	ug/l		6020	11/24/14	1
Iron	9800	250	500	ug/l		6020	11/20/14	5
Lead	1.3	1.2	10.	ug/l	J	6020	11/20/14	5
Manganese	770	1.2	25.	ug/l		6020	11/20/14	5
Potassium	84000	180	5000	ug/l		6020	11/20/14	5
Selenium	21.	1.9	10.	ug/l		6020	11/20/14	5
Sodium	1300000	2200	20000	ug/l		6020	12/02/14	20
TPH (GC/FID) Low Fraction	1300	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	101.			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	56.	50.	250	ug/l	J	8260B	11/21/14	5
Benzene	19.	1.6	5.0	ug/l		8260B	11/21/14	5
Bromodichloromethane	U	1.9	5.0	ug/l		8260B	11/21/14	5
Bromoform	U	2.3	5.0	ug/l		8260B	11/21/14	5
Bromomethane	U	4.3	25.	ug/l	J4	8260B	11/21/14	5
n-Butylbenzene	U	1.8	5.0	ug/l		8260B	11/21/14	5
sec-Butylbenzene	4.6	1.8	5.0	ug/l	J	8260B	11/21/14	5
Carbon disulfide	U	1.4	5.0	ug/l		8260B	11/21/14	5
Carbon tetrachloride	U	1.9	5.0	ug/l		8260B	11/21/14	5
Chlorobenzene	U	1.7	5.0	ug/l		8260B	11/21/14	5
Chlorodibromomethane	U	1.6	5.0	ug/l		8260B	11/21/14	5
Chloroethane	U	2.3	25.	ug/l		8260B	11/21/14	5
Chloroform	U	1.6	25.	ug/l		8260B	11/21/14	5
Chloromethane	U	1.4	13.	ug/l		8260B	11/21/14	5
1,2-Dibromoethane	U	1.9	5.0	ug/l		8260B	11/21/14	5
1,1-Dichloroethane	U	1.3	5.0	ug/l		8260B	11/21/14	5
1,2-Dichloroethane	U	1.8	5.0	ug/l		8260B	11/21/14	5
1,1-Dichloroethene	U	2.0	5.0	ug/l		8260B	11/21/14	5
cis-1,2-Dichloroethene	U	1.3	5.0	ug/l		8260B	11/21/14	5

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41
 L733743-37 (GFAA METALS) - Diluted due to color.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-77
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 13:20

ESC Sample # : L733743-37
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	2.0	5.0	ug/l		8260B	11/21/14	5
1,2-Dichloropropane	U	1.5	5.0	ug/l		8260B	11/21/14	5
cis-1,3-Dichloropropene	U	2.1	5.0	ug/l		8260B	11/21/14	5
trans-1,3-Dichloropropene	U	2.1	5.0	ug/l		8260B	11/21/14	5
Ethylbenzene	7.2	1.9	5.0	ug/l		8260B	11/21/14	5
Isopropylbenzene	31.	1.6	5.0	ug/l		8260B	11/21/14	5
p-Isopropyltoluene	3.6	1.8	5.0	ug/l	J	8260B	11/21/14	5
2-Butanone (MEK)	U	20.	50.	ug/l		8260B	11/21/14	5
2-Hexanone	U	19.	50.	ug/l		8260B	11/21/14	5
Methylene Chloride	U	5.0	25.	ug/l		8260B	11/21/14	5
4-Methyl-2-pentanone (MIBK)	U	11.	50.	ug/l		8260B	11/21/14	5
Methyl tert-butyl ether	9.1	1.8	5.0	ug/l		8260B	11/21/14	5
Naphthalene	U	5.0	25.	ug/l		8260B	11/21/14	5
n-Propylbenzene	22.	1.7	5.0	ug/l		8260B	11/21/14	5
Styrene	U	1.5	5.0	ug/l		8260B	11/21/14	5
1,1,1,2-Tetrachloroethane	U	1.9	5.0	ug/l		8260B	11/21/14	5
1,1,2,2-Tetrachloroethane	U	0.65	5.0	ug/l		8260B	11/21/14	5
Tetrachloroethene	U	1.9	5.0	ug/l		8260B	11/21/14	5
Toluene	7.3	3.9	25.	ug/l	J	8260B	11/21/14	5
1,1,1-Trichloroethane	U	1.6	5.0	ug/l		8260B	11/21/14	5
1,1,2-Trichloroethane	U	1.9	5.0	ug/l		8260B	11/21/14	5
Trichloroethene	U	2.0	5.0	ug/l		8260B	11/21/14	5
1,2,4-Trimethylbenzene	5.3	1.9	5.0	ug/l		8260B	11/21/14	5
1,3,5-Trimethylbenzene	4.4	1.9	5.0	ug/l	J	8260B	11/21/14	5
Vinyl chloride	U	1.3	5.0	ug/l		8260B	11/21/14	5
o-Xylene	3.6	1.7	5.0	ug/l	J	8260B	11/21/14	5
m&p-Xylene	6.6	3.6	10.	ug/l	J	8260B	11/21/14	5
Xylenes, Total	10.	5.3	15.	ug/l	J	8260B	11/21/14	5
Surrogate Recovery								
Toluene-d8	98.2			% Rec.		8260B	11/21/14	1
Dibromofluoromethane	89.2			% Rec.		8260B	11/21/14	1
4-Bromofluorobenzene	96.3			% Rec.		8260B	11/21/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	91000	440	2000	ug/l		8015	11/21/14	20
C28-C40 Oil Range	20000	240	2000	ug/l		8015	11/21/14	20
Surrogate Recovery								
o-Terphenyl	0.00			% Rec.	J7	8015	11/21/14	20

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41
 L733743-37 (GFAA METALS) - Diluted due to color.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-79
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 13:20

ESC Sample # : L733743-38
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	1600000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	5800	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	2500000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	2900	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	5600000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	7.3	0.25	2.0	ug/l		6020	11/20/14	1
Barium	20.	0.36	5.0	ug/l		6020	11/20/14	1
Calcium	650000	920	20000	ug/l		6020	12/02/14	20
Chromium	0.65	0.54	1.0	ug/l	JB	6020	11/20/14	1
Iron	230	50.	100	ug/l		6020	11/20/14	1
Lead	U	0.24	2.0	ug/l		6020	11/20/14	1
Manganese	4000	0.25	5.0	ug/l		6020	11/20/14	1
Potassium	8600	37.	1000	ug/l		6020	11/20/14	1
Selenium	1.7	0.38	2.0	ug/l	J	6020	11/20/14	1
Sodium	1100000	2200	20000	ug/l		6020	12/02/14	20
TPH (GC/FID) Low Fraction	55.	31.	100	ug/l	J	8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	97.7			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/21/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/21/14	1
Bromomethane	U	0.87	5.0	ug/l	J4	8260B	11/21/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/21/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/21/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/21/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/21/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/21/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/21/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/21/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-79
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 13:20

ESC Sample # : L733743-38
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/21/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/21/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/21/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/21/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/21/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/21/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/21/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/21/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/21/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/21/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/21/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/21/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/21/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/21/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/21/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/21/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/21/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/21/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/21/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/21/14	1
Surrogate Recovery								
Toluene-d8	100.			% Rec.		8260B	11/21/14	1
Dibromofluoromethane	91.7			% Rec.		8260B	11/21/14	1
4-Bromofluorobenzene	93.6			% Rec.		8260B	11/21/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	590	22.	100	ug/l		8015	11/20/14	1
C28-C40 Oil Range	330	12.	100	ug/l		8015	11/20/14	1
Surrogate Recovery								
o-Terphenyl	123.			% Rec.		8015	11/20/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

Sample ID : MW-83

Collected By : SU/HMI Team
 Collection Date : 11/13/14 14:50

ESC Sample # : L733743-39

Site ID : EVAPORATION PONDS

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	14000	52.	1000	ug/l		300.0	11/23/14	1
Fluoride	3900	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	4200000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	6400000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	30.	0.25	2.0	ug/l		6020	11/20/14	1
Barium	46.	0.36	5.0	ug/l		6020	11/20/14	1
Calcium	520000	920	20000	ug/l		6020	12/02/14	20
Chromium	8.9	0.54	1.0	ug/l		6020	11/24/14	1
Iron	12000	50.	100	ug/l		6020	11/20/14	1
Lead	0.37	0.24	2.0	ug/l	J	6020	11/20/14	1
Manganese	700	0.25	5.0	ug/l		6020	11/20/14	1
Potassium	56000	37.	1000	ug/l		6020	11/20/14	1
Selenium	7.5	0.38	2.0	ug/l		6020	11/20/14	1
Sodium	410000	2200	20000	ug/l		6020	12/02/14	20
TPH (GC/FID) Low Fraction	430	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	97.7			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	19.	10.	50.	ug/l	J	8260B	11/21/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/21/14	1
Bromomethane	U	0.87	5.0	ug/l	J4	8260B	11/21/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
sec-Butylbenzene	0.75	0.36	1.0	ug/l	J	8260B	11/21/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/21/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/21/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/21/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/21/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/21/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/21/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/21/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-83
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 14:50

ESC Sample # : L733743-39
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/21/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
Ethylbenzene	0.44	0.38	1.0	ug/l	J	8260B	11/21/14	1
Isopropylbenzene	2.8	0.33	1.0	ug/l		8260B	11/21/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/21/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/21/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/21/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/21/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/21/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/21/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/21/14	1
n-Propylbenzene	1.6	0.35	1.0	ug/l		8260B	11/21/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/21/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/21/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/21/14	1
Toluene	1.1	0.78	5.0	ug/l	J	8260B	11/21/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/21/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/21/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/21/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/21/14	1
o-Xylene	0.87	0.34	1.0	ug/l	J	8260B	11/21/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/21/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/21/14	1
Surrogate Recovery								
Toluene-d8	100.			% Rec.		8260B	11/21/14	1
Dibromofluoromethane	91.2			% Rec.		8260B	11/21/14	1
4-Bromofluorobenzene	93.1			% Rec.		8260B	11/21/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	22000	440	2000	ug/l		8015	11/21/14	20
C28-C40 Oil Range	6500	24.	200	ug/l		8015	11/19/14	2
Surrogate Recovery								
o-Terphenyl	127.			% Rec.		8015	11/19/14	2

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

Sample ID : MW-84

Collected By : SU/HMI Team
 Collection Date : 11/12/14 11:10

ESC Sample # : L733743-40

Site ID : EVAPORATION PONDS

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	1300000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	5200	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	5800000	7700	500000	ug/l		300.0	11/24/14	100
Nitrate-Nitrite	140	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	11000000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	83.	1.2	10.	ug/l		6020	11/20/14	5
Barium	29.	1.8	25.	ug/l		6020	11/20/14	5
Calcium	610000	920	20000	ug/l		6020	12/02/14	20
Chromium	19.	2.7	5.0	ug/l	B	6020	11/20/14	5
Iron	1600	250	500	ug/l		6020	11/20/14	5
Lead	U	0.24	2.0	ug/l		6020	11/24/14	1
Manganese	3600	1.2	25.	ug/l		6020	11/20/14	5
Potassium	14000	180	5000	ug/l		6020	11/20/14	5
Selenium	14.	1.9	10.	ug/l		6020	11/20/14	5
Sodium	1600000	2200	20000	ug/l		6020	12/02/14	20
TPH (GC/FID) Low Fraction	610	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.2			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	37.	10.	50.	ug/l	J	8260B	11/21/14	1
Benzene	0.70	0.33	1.0	ug/l	J	8260B	11/21/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/21/14	1
Bromomethane	U	0.87	5.0	ug/l	J4	8260B	11/21/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/21/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/21/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/21/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/21/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/21/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/21/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/21/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41
 L733743-40 (GFAA METALS) - Diluted due to color.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-40

Sample ID : MW-84

Site ID : EVAPORATION PONDS

Collected By : SU/HMI Team
 Collection Date : 11/12/14 11:10

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/21/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
Ethylbenzene	0.98	0.38	1.0	ug/l	J	8260B	11/21/14	1
Isopropylbenzene	0.52	0.33	1.0	ug/l	J	8260B	11/21/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/21/14	1
2-Butanone (MEK)	4.2	3.9	10.	ug/l	J	8260B	11/21/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/21/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/21/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/21/14	1
Methyl tert-butyl ether	2.5	0.37	1.0	ug/l		8260B	11/21/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/21/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/21/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/21/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/21/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/21/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/21/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/21/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/21/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/21/14	1
o-Xylene	0.55	0.34	1.0	ug/l	J	8260B	11/21/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/21/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/21/14	1
Surrogate Recovery								
Toluene-d8	99.9			% Rec.		8260B	11/21/14	1
Dibromofluoromethane	90.4			% Rec.		8260B	11/21/14	1
4-Bromofluorobenzene	93.4			% Rec.		8260B	11/21/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	75000	890	4000	ug/l		8015	11/21/14	40
C28-C40 Oil Range	38000	470	4000	ug/l		8015	11/21/14	40
Surrogate Recovery								
o-Terphenyl	0.00			% Rec.	J7	8015	11/21/14	40

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41
 L733743-40 (GFAA METALS) - Diluted due to color.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-87
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 11:30

ESC Sample # : L733743-41
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Arsenic	2.4	0.25	2.0	ug/l		6020	11/20/14	1
Barium	27.	0.36	5.0	ug/l		6020	11/20/14	1
Calcium	750000	2300	50000	ug/l		6020	12/02/14	50
Chromium	0.82	0.54	1.0	ug/l	JB	6020	11/20/14	1
Iron	200	50.	100	ug/l		6020	11/20/14	1
Lead	U	0.24	2.0	ug/l		6020	11/24/14	1
Manganese	1500	0.25	5.0	ug/l		6020	11/20/14	1
Potassium	26000	37.	1000	ug/l		6020	11/20/14	1
Selenium	1.4	0.38	2.0	ug/l	J	6020	11/20/14	1
Sodium	2700000	5500	50000	ug/l		6020	12/02/14	50
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	97.2			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/21/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/21/14	1
Bromomethane	U	0.87	5.0	ug/l	J4	8260B	11/21/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/21/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/21/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/21/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/21/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/21/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/21/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/21/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/21/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/21/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/21/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/21/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-41

Sample ID : MW-87

Site ID : EVAPORATION PONDS

Collected By : SU/HMI Team
 Collection Date : 11/13/14 11:30

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
2-Hexanone	U	3.8	10.	ug/l		8260B	11/21/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/21/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/21/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/21/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/21/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/21/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/21/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/21/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/21/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/21/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/21/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/21/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/21/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/21/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/21/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/21/14	1
Surrogate Recovery								
Toluene-d8	100.			% Rec.		8260B	11/21/14	1
Dibromofluoromethane	91.4			% Rec.		8260B	11/21/14	1
4-Bromofluorobenzene	93.4			% Rec.		8260B	11/21/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	120	22.	100	ug/l		8015	11/21/14	1
C28-C40 Oil Range	33.	12.	100	ug/l	J	8015	11/21/14	1
Surrogate Recovery								
o-Terphenyl	117.			% Rec.		8015	11/21/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-42

Sample ID : MW-88

Site ID : EVAPORATION PONDS

Collected By : SU/HMI Team
 Collection Date : 11/13/14 08:25

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Arsenic	12.	0.25	2.0	ug/l		6020	11/20/14	1
Barium	21.	0.36	5.0	ug/l		6020	11/20/14	1
Calcium	570000	920	20000	ug/l		6020	12/02/14	20
Chromium	U	0.54	1.0	ug/l		6020	11/20/14	1
Iron	1400	50.	100	ug/l		6020	11/20/14	1
Lead	U	0.24	2.0	ug/l		6020	11/24/14	1
Manganese	1600	0.25	5.0	ug/l		6020	11/20/14	1
Potassium	3000	37.	1000	ug/l		6020	11/20/14	1
Selenium	1.5	0.38	2.0	ug/l	J	6020	11/20/14	1
Sodium	1300000	2200	20000	ug/l		6020	12/02/14	20
TPH (GC/FID) Low Fraction	48.	31.	100	ug/l	J	8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	97.7			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/21/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/21/14	1
Bromomethane	U	0.87	5.0	ug/l	J4	8260B	11/21/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/21/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/21/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/21/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/21/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/21/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/21/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/21/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/21/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/21/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/21/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/21/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-88
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 08:25

ESC Sample # : L733743-42
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
2-Hexanone	U	3.8	10.	ug/l		8260B	11/21/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/21/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/21/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/21/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/21/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/21/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/21/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/21/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/21/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/21/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/21/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/21/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/21/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/21/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/21/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/21/14	1
Surrogate Recovery								
Toluene-d8	99.1			% Rec.		8260B	11/21/14	1
Dibromofluoromethane	90.8			% Rec.		8260B	11/21/14	1
4-Bromofluorobenzene	95.9			% Rec.		8260B	11/21/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	570	22.	100	ug/l		8015	11/21/14	1
C28-C40 Oil Range	100	12.	100	ug/l		8015	11/21/14	1
Surrogate Recovery								
o-Terphenyl	120.			% Rec.		8015	11/21/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-43

Sample ID : MW-120

Site ID : EVAPORATION PONDS

Collected By : SU/HMI Team
 Collection Date : 11/12/14 09:25

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	2800000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	2000	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	3600000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	1800	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	8700000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	26.	0.25	2.0	ug/l		6020	11/20/14	1
Barium	18.	0.36	5.0	ug/l		6020	11/20/14	1
Calcium	850000	2300	50000	ug/l		6020	12/02/14	50
Chromium	1.0	0.54	1.0	ug/l		6020	11/24/14	1
Iron	12000	50.	100	ug/l		6020	11/20/14	1
Lead	0.64	0.24	2.0	ug/l	J	6020	11/24/14	1
Manganese	1500	0.25	5.0	ug/l		6020	11/20/14	1
Potassium	5000	37.	1000	ug/l		6020	11/20/14	1
Selenium	38.	0.38	2.0	ug/l		6020	11/20/14	1
Sodium	1900000	5500	50000	ug/l		6020	12/02/14	50
TPH (GC/FID) Low Fraction	57.	31.	100	ug/l	J	8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.2			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/21/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/21/14	1
Bromomethane	U	0.87	5.0	ug/l	J4	8260B	11/21/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/21/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/21/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/21/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/21/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/21/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/21/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/21/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-120
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 09:25

ESC Sample # : L733743-43
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/21/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/21/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/21/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/21/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/21/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/21/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/21/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/21/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/21/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/21/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/21/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/21/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/21/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/21/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/21/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/21/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/21/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/21/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/21/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/21/14	1
Surrogate Recovery								
Toluene-d8	100.			% Rec.		8260B	11/21/14	1
Dibromofluoromethane	93.5			% Rec.		8260B	11/21/14	1
4-Bromofluorobenzene	91.9			% Rec.		8260B	11/21/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	2400	22.	100	ug/l		8015	11/19/14	1
C28-C40 Oil Range	900	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	130.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:41



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-121
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 10:10

ESC Sample # : L733743-44
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	1400000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	3200	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	3100000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	3800	20.	100	ug/l	J6	353.2	11/18/14	1
Dissolved Solids	6100000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	71.	0.25	2.0	ug/l		6020	11/20/14	1
Barium	19.	0.36	5.0	ug/l		6020	11/20/14	1
Calcium	720000	920	20000	ug/l		6020	12/02/14	20
Chromium	1.4	0.54	1.0	ug/l		6020	11/24/14	1
Iron	2000	50.	100	ug/l		6020	11/20/14	1
Lead	0.70	0.24	2.0	ug/l	J	6020	11/24/14	1
Manganese	3800	0.25	5.0	ug/l		6020	11/20/14	1
Potassium	3400	37.	1000	ug/l		6020	11/20/14	1
Selenium	12.	0.38	2.0	ug/l		6020	11/20/14	1
Sodium	940000	2200	20000	ug/l		6020	12/02/14	20
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	97.7			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/21/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/21/14	1
Bromomethane	U	0.87	5.0	ug/l	J4	8260B	11/21/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/21/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/21/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/21/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/21/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/21/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/21/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/21/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-44

Sample ID : MW-121

Site ID : EVAPORATION PONDS

Collected By : SU/HMI Team
 Collection Date : 11/12/14 10:10

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/21/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/21/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/21/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/21/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/21/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/21/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/21/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/21/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/21/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/21/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/21/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/21/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/21/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/21/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/21/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/21/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/21/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/21/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/21/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/21/14	1
Surrogate Recovery								
Toluene-d8	100.			% Rec.		8260B	11/21/14	1
Dibromofluoromethane	92.3			% Rec.		8260B	11/21/14	1
4-Bromofluorobenzene	91.7			% Rec.		8260B	11/21/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	510	22.	100	ug/l		8015	11/19/14	1
C28-C40 Oil Range	170	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	131.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-122
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 12:15

ESC Sample # : L733743-45
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	4200000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	2100	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	5700000	7700	500000	ug/l		300.0	11/24/14	100
Nitrate-Nitrite	940	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	16000000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	18.	0.25	2.0	ug/l		6020	11/20/14	1
Barium	34.	0.36	5.0	ug/l		6020	11/20/14	1
Calcium	860000	2300	50000	ug/l		6020	12/02/14	50
Chromium	1.5	0.54	1.0	ug/l		6020	11/24/14	1
Iron	2600	50.	100	ug/l		6020	11/20/14	1
Lead	0.36	0.24	2.0	ug/l	J	6020	11/24/14	1
Manganese	1100	0.25	5.0	ug/l		6020	11/20/14	1
Potassium	5900	37.	1000	ug/l		6020	11/20/14	1
Selenium	40.	0.38	2.0	ug/l		6020	11/20/14	1
Sodium	3900000	5500	50000	ug/l		6020	12/02/14	50
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	97.7			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/17/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/17/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/17/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/17/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/17/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/17/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/17/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/17/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/17/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/17/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-122
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 12:15

ESC Sample # : L733743-45
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/17/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/17/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/17/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/17/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/17/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/17/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/17/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/17/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/17/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/17/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/17/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/17/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/17/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/17/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/17/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/17/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/17/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/17/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/17/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/17/14	1
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	11/17/14	1
Dibromofluoromethane	106.			% Rec.		8260B	11/17/14	1
4-Bromofluorobenzene	102.			% Rec.		8260B	11/17/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	5500	22.	100	ug/l		8015	11/19/14	1
C28-C40 Oil Range	3800	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	136.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-123
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 09:45

ESC Sample # : L733743-46
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	1400000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	1000	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	2300000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	5600000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	23.	0.25	2.0	ug/l		6020	11/20/14	1
Barium	27.	0.36	5.0	ug/l		6020	11/20/14	1
Calcium	580000	2300	50000	ug/l		6020	12/02/14	50
Chromium	0.93	0.54	1.0	ug/l	JB	6020	11/20/14	1
Iron	300	50.	100	ug/l		6020	11/20/14	1
Lead	0.75	0.24	2.0	ug/l	J	6020	11/24/14	1
Manganese	2700	0.25	5.0	ug/l		6020	11/20/14	1
Potassium	3900	37.	1000	ug/l		6020	11/20/14	1
Selenium	1.3	0.38	2.0	ug/l	J	6020	11/20/14	1
Sodium	1100000	5500	50000	ug/l		6020	12/02/14	50
TPH (GC/FID) Low Fraction	1600	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.2			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	10.	10.	50.	ug/l	J	8260B	11/17/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/17/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/17/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/17/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/17/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/17/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/17/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/17/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/17/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/17/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-46

Sample ID : MW-123

Site ID : EVAPORATION PONDS

Collected By : SU/HMI Team
 Collection Date : 11/13/14 09:45

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/17/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/17/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/17/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/17/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/17/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/17/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/17/14	1
Methyl tert-butyl ether	1.7	0.37	1.0	ug/l		8260B	11/17/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/17/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/17/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/17/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/17/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/17/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/17/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/17/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/17/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/17/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/17/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/17/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/17/14	1
Surrogate Recovery								
Toluene-d8	98.2			% Rec.		8260B	11/17/14	1
Dibromofluoromethane	105.			% Rec.		8260B	11/17/14	1
4-Bromofluorobenzene	97.4			% Rec.		8260B	11/17/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	2700	22.	100	ug/l		8015	11/21/14	1
C28-C40 Oil Range	340	12.	100	ug/l		8015	11/21/14	1
Surrogate Recovery								
o-Terphenyl	120.			% Rec.		8015	11/21/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-124
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 12:25

ESC Sample # : L733743-47
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	3000000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	660	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	3800000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	9500000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	5.2	0.25	2.0	ug/l		6020	11/20/14	1
Barium	27.	0.36	5.0	ug/l		6020	11/20/14	1
Calcium	820000	920	20000	ug/l		6020	12/02/14	20
Chromium	0.86	0.54	1.0	ug/l	JB	6020	11/20/14	1
Iron	2700	50.	100	ug/l		6020	11/20/14	1
Lead	0.51	0.24	2.0	ug/l	J	6020	11/24/14	1
Manganese	1100	0.25	5.0	ug/l		6020	11/20/14	1
Potassium	7100	37.	1000	ug/l		6020	11/20/14	1
Selenium	0.93	0.38	2.0	ug/l	J	6020	11/20/14	1
Sodium	1700000	2200	20000	ug/l		6020	12/02/14	20
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.0			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/17/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/17/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/17/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/17/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/17/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/17/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/17/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/17/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/17/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/17/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-124
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 12:25

ESC Sample # : L733743-47
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/17/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/17/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/17/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/17/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/17/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/17/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/17/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/17/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/17/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/17/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/17/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/17/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/17/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/17/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/17/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/17/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/17/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/17/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/17/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/17/14	1
Surrogate Recovery								
Toluene-d8	99.4			% Rec.		8260B	11/17/14	1
Dibromofluoromethane	105.			% Rec.		8260B	11/17/14	1
4-Bromofluorobenzene	104.			% Rec.		8260B	11/17/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	U	22.	100	ug/l		8015	11/21/14	1
C28-C40 Oil Range	41.	12.	100	ug/l	J	8015	11/21/14	1
Surrogate Recovery								
o-Terphenyl	117.			% Rec.		8015	11/21/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : OCD-1R
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 08:25

ESC Sample # : L733743-48
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	5800000	5200	100000	ug/l		300.0	11/22/14	100
Fluoride	1100	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	6300000	7700	500000	ug/l		300.0	11/22/14	100
Nitrate-Nitrite	1100	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	11000000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	7.1	0.25	2.0	ug/l		6020	11/20/14	1
Barium	20.	0.36	5.0	ug/l		6020	11/20/14	1
Calcium	840000	2300	50000	ug/l		6020	12/02/14	50
Chromium	0.81	0.54	1.0	ug/l	JB	6020	11/20/14	1
Iron	340	50.	100	ug/l		6020	11/20/14	1
Lead	U	0.24	2.0	ug/l		6020	11/24/14	1
Manganese	410	0.25	5.0	ug/l		6020	11/20/14	1
Potassium	4100	37.	1000	ug/l		6020	11/20/14	1
Selenium	19.	0.38	2.0	ug/l		6020	11/20/14	1
Sodium	4700000	5500	50000	ug/l		6020	12/02/14	50
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	97.2			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/17/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/17/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/17/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/17/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/17/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/17/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/17/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/17/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/17/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/17/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-48

Sample ID : OCD-1R

Site ID : EVAPORATION PONDS

Collected By : SU/HMI Team
 Collection Date : 11/12/14 08:25

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/17/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/17/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/17/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/17/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/17/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/17/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/17/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/17/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/17/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/17/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/17/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/17/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/17/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/17/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/17/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/17/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/17/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/17/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/17/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/17/14	1
Surrogate Recovery								
Toluene-d8	100.			% Rec.		8260B	11/17/14	1
Dibromofluoromethane	107.			% Rec.		8260B	11/17/14	1
4-Bromofluorobenzene	104.			% Rec.		8260B	11/17/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	230	22.	100	ug/l		8015	11/19/14	1
C28-C40 Oil Range	210	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	126.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : OCD-2A
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 09:20

ESC Sample # : L733743-49
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Arsenic	2.1	0.25	2.0	ug/l		6020	11/20/14	1
Barium	23.	0.36	5.0	ug/l		6020	11/20/14	1
Calcium	840000	2300	50000	ug/l		6020	12/02/14	50
Chromium	0.89	0.54	1.0	ug/l	JB	6020	11/20/14	1
Iron	710	50.	100	ug/l		6020	11/20/14	1
Lead	U	0.24	2.0	ug/l		6020	11/24/14	1
Manganese	590	0.25	5.0	ug/l		6020	11/20/14	1
Potassium	4500	37.	1000	ug/l		6020	11/20/14	1
Selenium	7.5	0.38	2.0	ug/l		6020	11/20/14	1
Sodium	2700000	5500	50000	ug/l		6020	12/02/14	50
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	97.4			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/17/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/17/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/17/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/17/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/17/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/17/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/17/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/17/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/17/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/17/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/17/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/17/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/17/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/17/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : OCD-2A
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 09:20

ESC Sample # : L733743-49
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
2-Hexanone	U	3.8	10.	ug/l		8260B	11/17/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/17/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/17/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/17/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/17/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/17/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/17/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/17/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/17/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/17/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/17/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/17/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/17/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/17/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/17/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/17/14	1
Surrogate Recovery								
Toluene-d8	97.9			% Rec.		8260B	11/17/14	1
Dibromofluoromethane	101.			% Rec.		8260B	11/17/14	1
4-Bromofluorobenzene	97.0			% Rec.		8260B	11/17/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	93.	22.	100	ug/l	J	8015	11/19/14	1
C28-C40 Oil Range	160	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	127.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-50

Sample ID : OCD-3

Site ID : EVAPORATION PONDS

Collected By : SU/HMI Team
 Collection Date : 11/12/14 10:10

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Arsenic	5.5	1.2	10.	ug/l	J	6020	11/18/14	5
Barium	19.	1.8	25.	ug/l	J	6020	11/18/14	5
Calcium	760000	920	20000	ug/l	V	6020	11/18/14	20
Chromium	U	2.7	5.0	ug/l		6020	11/18/14	5
Iron	2200	250	500	ug/l	V	6020	11/18/14	5
Lead	U	1.2	10.	ug/l		6020	11/18/14	5
Manganese	160	1.2	25.	ug/l	01J5	6020	11/18/14	5
Potassium	13000	180	5000	ug/l	01J5	6020	11/18/14	5
Selenium	4.0	1.9	10.	ug/l	J	6020	11/18/14	5
Sodium	1700000	2200	20000	ug/l	01V	6020	11/18/14	20
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	97.7			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/17/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/17/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/17/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/17/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/17/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/17/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/17/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/17/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/17/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/17/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/17/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/17/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/17/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/17/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42

L733743-50 (GFAA METALS) - Targets too high to run lower.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : OCD-3
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 10:10

ESC Sample # : L733743-50
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
2-Hexanone	U	3.8	10.	ug/l		8260B	11/17/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/17/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/17/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/17/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/17/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/17/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/17/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/17/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/17/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/17/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/17/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/17/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/17/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/17/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/17/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/17/14	1
Surrogate Recovery								
Toluene-d8	97.4			% Rec.		8260B	11/17/14	1
Dibromofluoromethane	105.			% Rec.		8260B	11/17/14	1
4-Bromofluorobenzene	103.			% Rec.		8260B	11/17/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	70.	22.	100	ug/l	J	8015	11/19/14	1
C28-C40 Oil Range	120	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	131.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42
 L733743-50 (GFAA METALS) - Targets too high to run lower.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

Sample ID : OCD-4

Collected By : SU/HMI Team
 Collection Date : 11/12/14 11:00

ESC Sample # : L733743-51

Site ID : EVAPORATION PONDS

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Arsenic	3.6	1.2	10.	ug/l	J	6020	11/18/14	5
Barium	25.	1.8	25.	ug/l		6020	11/18/14	5
Calcium	1100000	2300	50000	ug/l		6020	11/18/14	50
Chromium	U	2.7	5.0	ug/l		6020	11/18/14	5
Iron	3800	250	500	ug/l		6020	11/18/14	5
Lead	U	1.2	10.	ug/l		6020	11/18/14	5
Manganese	310	1.2	25.	ug/l		6020	11/18/14	5
Potassium	36000	180	5000	ug/l		6020	11/18/14	5
Selenium	U	1.9	10.	ug/l		6020	11/18/14	5
Sodium	3400000	5500	50000	ug/l		6020	11/18/14	50
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.8			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/17/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/17/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/17/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/17/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/17/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/17/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/17/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/17/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/17/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/17/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/17/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/17/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/17/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/17/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42

L733743-51 (GFAA METALS) - Targets too high to run lower.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-51

Sample ID : OCD-4

Site ID : EVAPORATION PONDS

Collected By : SU/HMI Team
 Collection Date : 11/12/14 11:00

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
2-Hexanone	U	3.8	10.	ug/l		8260B	11/17/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/17/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/17/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/17/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/17/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/17/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/17/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/17/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/17/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/17/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/17/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/17/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/17/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/17/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/17/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/17/14	1
Surrogate Recovery								
Toluene-d8	97.9			% Rec.		8260B	11/17/14	1
Dibromofluoromethane	107.			% Rec.		8260B	11/17/14	1
4-Bromofluorobenzene	101.			% Rec.		8260B	11/17/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	65.	22.	100	ug/l	J	8015	11/19/14	1
C28-C40 Oil Range	100	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	136.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42
 L733743-51 (GFAA METALS) - Targets too high to run lower.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : OCD-5
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 11:50

ESC Sample # : L733743-52
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	5100000	5200	100000	ug/l		300.0	11/22/14	100
Fluoride	420	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	3400000	7700	500000	ug/l		300.0	11/22/14	100
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	12000000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	9.9	1.2	10.	ug/l	J	6020	11/18/14	5
Barium	28.	1.8	25.	ug/l		6020	11/18/14	5
Calcium	1000000	2300	50000	ug/l		6020	11/18/14	50
Chromium	U	2.7	5.0	ug/l		6020	11/18/14	5
Iron	4800	250	500	ug/l		6020	11/18/14	5
Lead	U	1.2	10.	ug/l		6020	11/18/14	5
Manganese	360	1.2	25.	ug/l		6020	11/18/14	5
Potassium	35000	180	5000	ug/l		6020	11/18/14	5
Selenium	U	1.9	10.	ug/l		6020	11/18/14	5
Sodium	3500000	5500	50000	ug/l		6020	11/18/14	50
TPH (GC/FID) Low Fraction	260	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.6			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/17/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/17/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/17/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/17/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/17/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/17/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/17/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/17/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/17/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/17/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42
 L733743-52 (GFAA METALS) - Targets too high to run lower.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

Sample ID : OCD-5

Collected By : SU/HMI Team
 Collection Date : 11/12/14 11:50

ESC Sample # : L733743-52

Site ID : EVAPORATION PONDS

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/17/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/17/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/17/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/17/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/17/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/17/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/17/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/17/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/17/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/17/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/17/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/17/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/17/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/17/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/17/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/17/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/17/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/17/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/17/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/17/14	1
Surrogate Recovery								
Toluene-d8	95.6			% Rec.		8260B	11/17/14	1
Dibromofluoromethane	111.			% Rec.		8260B	11/17/14	1
4-Bromofluorobenzene	105.			% Rec.		8260B	11/17/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	540	22.	100	ug/l		8015	11/19/14	1
C28-C40 Oil Range	120	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	133.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42

L733743-52 (GFAA METALS) - Targets too high to run lower.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : OCD-6
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 15:30

ESC Sample # : L733743-53
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	2900000	5200	100000	ug/l		300.0	11/26/14	100
Fluoride	2500	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	2600000	7700	500000	ug/l		300.0	11/26/14	100
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	7700000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	14.	1.2	10.	ug/l		6020	11/18/14	5
Barium	24.	1.8	25.	ug/l	J	6020	11/18/14	5
Calcium	780000	920	20000	ug/l		6020	11/18/14	20
Chromium	2.7	2.7	5.0	ug/l	J	6020	11/18/14	5
Iron	7600	250	500	ug/l		6020	11/18/14	5
Lead	U	1.2	10.	ug/l		6020	11/18/14	5
Manganese	1200	1.2	25.	ug/l		6020	11/18/14	5
Potassium	11000	180	5000	ug/l		6020	11/18/14	5
Selenium	U	1.9	10.	ug/l		6020	11/18/14	5
Sodium	1700000	2200	20000	ug/l		6020	11/18/14	20
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.8			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/17/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/17/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/17/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/17/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/17/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/17/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/17/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/17/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/17/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/17/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42
 L733743-53 (GFAA METALS) - Targets too high to run lower.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-53

Sample ID : OCD-6

Site ID : EVAPORATION PONDS

Collected By : SU/HMI Team
 Collection Date : 11/12/14 15:30

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/17/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/17/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/17/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/17/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/17/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/17/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/17/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/17/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/17/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/17/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/17/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/17/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/17/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/17/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/17/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/17/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/17/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/17/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/17/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/17/14	1
Surrogate Recovery								
Toluene-d8	97.5			% Rec.		8260B	11/17/14	1
Dibromofluoromethane	111.			% Rec.		8260B	11/17/14	1
4-Bromofluorobenzene	102.			% Rec.		8260B	11/17/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	540	22.	100	ug/l		8015	11/19/14	1
C28-C40 Oil Range	140	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	142.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42
 L733743-53 (GFAA METALS) - Targets too high to run lower.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-54

Sample ID : OCD-7AR

Site ID : EVAPORATION PONDS

Collected By : SU/HMI Team
 Collection Date : 11/13/14 09:00

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	2800000	5200	100000	ug/l		300.0	11/26/14	100
Fluoride	3500	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	3900000	7700	500000	ug/l		300.0	11/26/14	100
Nitrate-Nitrite	150	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	9100000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	110	1.2	10.	ug/l		6020	11/18/14	5
Barium	15.	1.8	25.	ug/l	J	6020	11/18/14	5
Calcium	700000	920	20000	ug/l		6020	11/18/14	20
Chromium	U	2.7	5.0	ug/l		6020	11/18/14	5
Iron	4300	250	500	ug/l		6020	11/18/14	5
Lead	U	1.2	10.	ug/l		6020	11/18/14	5
Manganese	2400	1.2	25.	ug/l		6020	11/18/14	5
Potassium	6600	180	5000	ug/l		6020	11/18/14	5
Selenium	2.0	1.9	10.	ug/l	J	6020	11/18/14	5
Sodium	2500000	5500	50000	ug/l		6020	11/18/14	50
TPH (GC/FID) Low Fraction	760	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.5			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/17/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/17/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/17/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/17/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/17/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/17/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/17/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/17/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/17/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/17/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42
 L733743-54 (GFAA METALS) - Targets too high to run lower.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-54

Sample ID : OCD-7AR

Site ID : EVAPORATION PONDS

Collected By : SU/HMI Team
 Collection Date : 11/13/14 09:00

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/17/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/17/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/17/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/17/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/17/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/17/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/17/14	1
Methyl tert-butyl ether	2.2	0.37	1.0	ug/l		8260B	11/17/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/17/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/17/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/17/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/17/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/17/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/17/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2,4-Trimethylbenzene	0.54	0.37	1.0	ug/l	J	8260B	11/17/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/17/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/17/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/17/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/17/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/17/14	1
Surrogate Recovery								
Toluene-d8	99.0			% Rec.		8260B	11/17/14	1
Dibromofluoromethane	102.			% Rec.		8260B	11/17/14	1
4-Bromofluorobenzene	102.			% Rec.		8260B	11/17/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	3500	22.	100	ug/l		8015	11/21/14	1
C28-C40 Oil Range	340	12.	100	ug/l		8015	11/21/14	1
Surrogate Recovery								
o-Terphenyl	118.			% Rec.		8015	11/21/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42
 L733743-54 (GFAA METALS) - Targets too high to run lower.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : OCD-8A
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 10:00

ESC Sample # : L733743-55
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	6300000	5200	100000	ug/l		300.0	11/26/14	100
Fluoride	1700	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	3500000	7700	500000	ug/l		300.0	11/26/14	100
Cyanide	U	1.8	5.0	ug/l		9012B	11/21/14	1
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	13000000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	50.	1.2	10.	ug/l		6020	11/18/14	5
Barium	80.	1.8	25.	ug/l		6020	11/18/14	5
Calcium	1200000	2300	50000	ug/l		6020	11/18/14	50
Chromium	7.2	2.7	5.0	ug/l		6020	11/18/14	5
Iron	13000	250	500	ug/l		6020	11/18/14	5
Lead	U	1.2	10.	ug/l		6020	11/18/14	5
Manganese	4700	1.2	25.	ug/l		6020	11/18/14	5
Nickel	62.	1.8	10.	ug/l		6020	11/18/14	5
Potassium	13000	180	5000	ug/l		6020	11/18/14	5
Selenium	U	1.9	10.	ug/l		6020	11/18/14	5
Sodium	3500000	5500	50000	ug/l		6020	11/18/14	50
Vanadium	6.5	0.90	25.	ug/l	J	6020	11/18/14	5
Mercury	U	0.049	0.20	ug/l		7470A	11/18/14	1
TPH (GC/FID) Low Fraction	660	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.7			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/17/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/17/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/17/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/17/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/17/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/17/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/17/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/17/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42
 L733743-55 (GFAA METALS) - Targets too high to run lower.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : OCD-8A
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 10:00

ESC Sample # : L733743-55
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloromethane	U	0.28	2.5	ug/l		8260B	11/17/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/17/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/17/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/17/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/17/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/17/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/17/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/17/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/17/14	1
Methyl tert-butyl ether	4.0	0.37	1.0	ug/l		8260B	11/17/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/17/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/17/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/17/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/17/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/17/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/17/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/17/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/17/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/17/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/17/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/17/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/17/14	1
Surrogate Recovery								
Toluene-d8	98.0			% Rec.		8260B	11/17/14	1
Dibromofluoromethane	102.			% Rec.		8260B	11/17/14	1
4-Bromofluorobenzene	97.9			% Rec.		8260B	11/17/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	1800	22.	100	ug/l		8015	11/21/14	1
C28-C40 Oil Range	160	12.	100	ug/l		8015	11/21/14	1
Surrogate Recovery								

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42
 L733743-55 (GFAA METALS) - Targets too high to run lower.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : OCD-8A
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 10:00

ESC Sample # : L733743-55
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
o-Terphenyl	121.			% Rec.		8015	11/21/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42
 L733743-55 (GFAA METALS) - Targets too high to run lower.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : MW-11A
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 07:55

ESC Sample # : L733743-56
 Site ID : EVAPORATION PONDS
 Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	17000000	10000	200000	ug/l		9056MOD	11/20/14	200
Fluoride	U	9.9	100	ug/l		9056MOD	11/20/14	1
Sulfate	3000000	15000	1000000	ug/l		9056MOD	11/20/14	200
Nitrate-Nitrite	15000	99.	500	ug/l		353.2	11/18/14	5
Dissolved Solids	30000000	2800	10000	ug/l		2540 C-	11/20/14	1
Calcium	2600000	4600	100000	ug/l		6020	11/18/14	100
Potassium	21000	180	5000	ug/l		6020	11/18/14	5
Sodium	8300000	11000	100000	ug/l		6020	11/18/14	100

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42

L733743-56 (GFAA METALS) - Targets too high to run lower.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : DUP-EP-01
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 12:00

ESC Sample # : L733743-57

Site ID : EVAPORATION PONDS (QA/

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	1800000	5200	100000	ug/l		300.0	11/26/14	100
Fluoride	1200	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	2100000	7700	500000	ug/l		300.0	11/26/14	100
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	11000000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	20.	1.2	10.	ug/l		6020	11/18/14	5
Barium	17.	1.8	25.	ug/l	J	6020	11/18/14	5
Calcium	770000	920	20000	ug/l		6020	11/18/14	20
Chromium	U	2.7	5.0	ug/l		6020	11/18/14	5
Iron	1500	250	500	ug/l		6020	11/18/14	5
Lead	U	1.2	10.	ug/l		6020	11/18/14	5
Manganese	1600	1.2	25.	ug/l		6020	11/18/14	5
Potassium	5200	180	5000	ug/l		6020	11/18/14	5
Selenium	U	1.9	10.	ug/l		6020	11/18/14	5
Sodium	2500000	5500	50000	ug/l		6020	11/18/14	50
TPH (GC/FID) Low Fraction	370	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.5			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/17/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/17/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/17/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/17/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/17/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/17/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/17/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/17/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/17/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/17/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42
 L733743-57 (GFAA METALS) - Targets too high to run lower.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

Sample ID : DUP-EP-01

Collected By : SU/HMI Team
 Collection Date : 11/12/14 12:00

ESC Sample # : L733743-57

Site ID : EVAPORATION PONDS (QA/

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/17/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/17/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/17/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/17/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/17/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/17/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/17/14	1
Methyl tert-butyl ether	2.5	0.37	1.0	ug/l		8260B	11/17/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/17/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/17/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/17/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/17/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/17/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/17/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/17/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/17/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/17/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/17/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/17/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/17/14	1
Surrogate Recovery								
Toluene-d8	99.0			% Rec.		8260B	11/17/14	1
Dibromofluoromethane	101.			% Rec.		8260B	11/17/14	1
4-Bromofluorobenzene	99.4			% Rec.		8260B	11/17/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	1100	22.	100	ug/l		8015	11/19/14	1
C28-C40 Oil Range	310	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	136.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42
 L733743-57 (GFAA METALS) - Targets too high to run lower.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : DUP-EP-02
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 14:00

ESC Sample # : L733743-58

Site ID : EVAPORATION PONDS (QA/

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	1700000	5200	100000	ug/l		300.0	11/26/14	100
Fluoride	770	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	2200000	7700	500000	ug/l		300.0	11/26/14	100
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	6600000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	64.	1.2	10.	ug/l		6020	11/18/14	5
Barium	18.	1.8	25.	ug/l	J	6020	11/18/14	5
Calcium	720000	2300	50000	ug/l		6020	11/18/14	50
Chromium	3.0	2.7	5.0	ug/l	J	6020	11/18/14	5
Iron	8100	250	500	ug/l		6020	11/18/14	5
Lead	U	1.2	10.	ug/l		6020	11/18/14	5
Manganese	6300	1.2	25.	ug/l		6020	11/18/14	5
Potassium	3900	180	5000	ug/l	J	6020	11/18/14	5
Selenium	U	1.9	10.	ug/l		6020	11/18/14	5
Sodium	1700000	5500	50000	ug/l		6020	11/18/14	50
TPH (GC/FID) Low Fraction	4300	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.7			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/17/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/17/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/17/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/17/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/17/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/17/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/17/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/17/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/17/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/17/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42
 L733743-58 (GFAA METALS) - Targets too high to run lower.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : DUP-EP-02
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 14:00

ESC Sample # : L733743-58

Site ID : EVAPORATION PONDS (QA/

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/17/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/17/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/17/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/17/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/17/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/17/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/17/14	1
Methyl tert-butyl ether	9.9	0.37	1.0	ug/l		8260B	11/17/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/17/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/17/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/17/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/17/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/17/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/17/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/17/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/17/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/17/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/17/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/17/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/17/14	1
Surrogate Recovery								
Toluene-d8	96.6			% Rec.		8260B	11/17/14	1
Dibromofluoromethane	107.			% Rec.		8260B	11/17/14	1
4-Bromofluorobenzene	97.1			% Rec.		8260B	11/17/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	5300	22.	100	ug/l		8015	11/21/14	1
C28-C40 Oil Range	650	12.	100	ug/l		8015	11/21/14	1
Surrogate Recovery								
o-Terphenyl	120.			% Rec.		8015	11/21/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42
 L733743-58 (GFAA METALS) - Targets too high to run lower.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : DUP-EP-03
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 10:00

ESC Sample # : L733743-59

Site ID : EVAPORATION PONDS (QA/

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	2600000	5200	100000	ug/l		300.0	11/26/14	100
Fluoride	2200	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	2700000	7700	500000	ug/l		300.0	11/26/14	100
Nitrate-Nitrite	5200	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	7100000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	29.	1.2	10.	ug/l		6020	11/18/14	5
Barium	22.	1.8	25.	ug/l	J	6020	11/18/14	5
Calcium	7800000	920	20000	ug/l		6020	11/18/14	20
Chromium	6.0	2.7	5.0	ug/l		6020	11/18/14	5
Iron	340	250	500	ug/l	J	6020	11/18/14	5
Lead	U	1.2	10.	ug/l		6020	11/18/14	5
Manganese	2500	1.2	25.	ug/l		6020	11/18/14	5
Potassium	7000	180	5000	ug/l		6020	11/18/14	5
Selenium	23.	1.9	10.	ug/l		6020	11/18/14	5
Sodium	1200000	2200	20000	ug/l		6020	11/18/14	20
TPH (GC/FID) Low Fraction	520	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	99.1			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/17/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/17/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/17/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/17/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/17/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/17/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/17/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/17/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/17/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/17/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42
 L733743-59 (GFAA METALS) - Targets too high to run lower.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : DUP-EP-03
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 10:00

ESC Sample # : L733743-59

Site ID : EVAPORATION PONDS (QA/

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/17/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/17/14	1
Isopropylbenzene	0.46	0.33	1.0	ug/l	J	8260B	11/17/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/17/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/17/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/17/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/17/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/17/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/17/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/17/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/17/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/17/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/17/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/17/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/17/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/17/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/17/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/17/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/17/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/17/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/17/14	1
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	11/17/14	1
Dibromofluoromethane	106.			% Rec.		8260B	11/17/14	1
4-Bromofluorobenzene	95.5			% Rec.		8260B	11/17/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	9200	22.	100	ug/l		8015	11/19/14	1
C28-C40 Oil Range	2100	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	131.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42
 L733743-59 (GFAA METALS) - Targets too high to run lower.



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : EB-EP-01
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 14:25

ESC Sample # : L733743-60

Site ID : EVAPORATION PONDS (QA/

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	400	52.	1000	ug/l	JP1	300.0	11/23/14	1
Fluoride	40.	9.9	100	ug/l	J	300.0	11/23/14	1
Sulfate	710	77.	5000	ug/l	JP1	300.0	11/23/14	1
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	U	2800	10000	ug/l	T4	2540 C-	11/19/14	1
Arsenic	U	0.25	2.0	ug/l		6020	11/18/14	1
Barium	48.	0.36	5.0	ug/l		6020	11/18/14	1
Calcium	930	46.	1000	ug/l	J	6020	11/18/14	1
Chromium	U	0.54	1.0	ug/l		6020	11/18/14	1
Iron	U	50.	100	ug/l		6020	11/18/14	1
Lead	U	0.24	2.0	ug/l		6020	11/18/14	1
Manganese	6.0	0.25	5.0	ug/l		6020	11/18/14	1
Potassium	65.	37.	1000	ug/l	J	6020	11/18/14	1
Selenium	0.94	0.38	2.0	ug/l	J	6020	11/18/14	1
Sodium	1400	110	1000	ug/l		6020	11/18/14	1
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.9			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/17/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/17/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/17/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/17/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/17/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/17/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/17/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/17/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/17/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/17/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

Sample ID : EB-EP-01

Collected By : SU/HMI Team
 Collection Date : 11/12/14 14:25

ESC Sample # : L733743-60

Site ID : EVAPORATION PONDS (QA/

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/17/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/17/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/17/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/17/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/17/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/17/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/17/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/17/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/17/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/17/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/17/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/17/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/17/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/17/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/17/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/17/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/17/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/17/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/17/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/17/14	1
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	11/17/14	1
Dibromofluoromethane	102.			% Rec.		8260B	11/17/14	1
4-Bromofluorobenzene	104.			% Rec.		8260B	11/17/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	88.	22.	100	ug/l	J	8015	11/19/14	1
C28-C40 Oil Range	210	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	139.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : EB-EP-02
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 12:35

ESC Sample # : L733743-61

Site ID : EVAPORATION PONDS (QA/

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	1000	52.	1000	ug/l		300.0	11/23/14	1
Fluoride	44.	9.9	100	ug/l	J	300.0	11/23/14	1
Sulfate	290	77.	5000	ug/l	J	300.0	11/23/14	1
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	60000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	1.1	0.25	2.0	ug/l	J	6020	11/18/14	1
Barium	5.7	0.36	5.0	ug/l		6020	11/18/14	1
Calcium	4100	46.	1000	ug/l		6020	11/18/14	1
Chromium	0.55	0.54	1.0	ug/l	J	6020	11/18/14	1
Iron	U	50.	100	ug/l		6020	11/18/14	1
Lead	U	0.24	2.0	ug/l		6020	11/18/14	1
Manganese	12.	0.25	5.0	ug/l		6020	11/18/14	1
Potassium	320	37.	1000	ug/l	J	6020	11/18/14	1
Selenium	U	0.38	2.0	ug/l		6020	11/18/14	1
Sodium	5200	110	1000	ug/l		6020	11/18/14	1
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.7			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/17/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/17/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/17/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/17/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/17/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/17/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/17/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/17/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/17/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/17/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-61

Sample ID : EB-EP-02

Site ID : EVAPORATION PONDS (QA/

Collected By : SU/HMI Team
 Collection Date : 11/13/14 12:35

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/17/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/17/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/17/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/17/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/17/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/17/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/17/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/17/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/17/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/17/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/17/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/17/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/17/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/17/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/17/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/17/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/17/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/17/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/17/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/17/14	1
Surrogate Recovery								
Toluene-d8	99.4			% Rec.		8260B	11/17/14	1
Dibromofluoromethane	103.			% Rec.		8260B	11/17/14	1
4-Bromofluorobenzene	101.			% Rec.		8260B	11/17/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	U	22.	100	ug/l		8015	11/21/14	1
C28-C40 Oil Range	62.	12.	100	ug/l	J	8015	11/21/14	1
Surrogate Recovery								
o-Terphenyl	123.			% Rec.		8015	11/21/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : EB-EP-03
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 11:20

ESC Sample # : L733743-62

Site ID : EVAPORATION PONDS (QA/

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	340	52.	1000	ug/l	J	300.0	11/23/14	1
Fluoride	U	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	330	77.	5000	ug/l	J	300.0	11/23/14	1
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	5000	2800	10000	ug/l	J	2540 C-	11/20/14	1
Arsenic	U	0.25	2.0	ug/l		6020	11/18/14	1
Barium	U	0.36	5.0	ug/l		6020	11/18/14	1
Calcium	110	46.	1000	ug/l	J	6020	11/18/14	1
Chromium	U	0.54	1.0	ug/l		6020	11/18/14	1
Iron	U	50.	100	ug/l		6020	11/18/14	1
Lead	U	0.24	2.0	ug/l		6020	11/18/14	1
Manganese	U	0.25	5.0	ug/l		6020	11/18/14	1
Potassium	U	37.	1000	ug/l		6020	11/18/14	1
Selenium	U	0.38	2.0	ug/l		6020	11/18/14	1
Sodium	390	110	1000	ug/l	J	6020	11/18/14	1
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.7			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/17/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/17/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/17/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/17/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/17/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/17/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/17/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/17/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/17/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/17/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-62

Sample ID : EB-EP-03

Site ID : EVAPORATION PONDS (QA/

Collected By : SU/HMI Team
 Collection Date : 11/13/14 11:20

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/17/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/17/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/17/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/17/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/17/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/17/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/17/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/17/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/17/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/17/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/17/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/17/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/17/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/17/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/17/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/17/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/17/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/17/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/17/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/17/14	1
Surrogate Recovery								
Toluene-d8	98.1			% Rec.		8260B	11/17/14	1
Dibromofluoromethane	107.			% Rec.		8260B	11/17/14	1
4-Bromofluorobenzene	98.0			% Rec.		8260B	11/17/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	25.	22.	100	ug/l	J	8015	11/21/14	1
C28-C40 Oil Range	76.	12.	100	ug/l	J	8015	11/21/14	1
Surrogate Recovery								
o-Terphenyl	124.			% Rec.		8015	11/21/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : EB-EP-04
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 13:40

ESC Sample # : L733743-63

Site ID : EVAPORATION PONDS (QA/

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	260	52.	1000	ug/l	J	300.0	11/23/14	1
Fluoride	46.	9.9	100	ug/l	J	300.0	11/23/14	1
Sulfate	360	77.	5000	ug/l	J	300.0	11/23/14	1
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/18/14	1
Dissolved Solids	13000	2800	10000	ug/l	T4	2540 C-	11/19/14	1
Arsenic	1.2	0.25	2.0	ug/l	J	6020	11/18/14	1
Barium	6.0	0.36	5.0	ug/l		6020	11/18/14	1
Calcium	4200	46.	1000	ug/l		6020	11/18/14	1
Chromium	0.56	0.54	1.0	ug/l	J	6020	11/18/14	1
Iron	U	50.	100	ug/l		6020	11/18/14	1
Lead	U	0.24	2.0	ug/l		6020	11/18/14	1
Manganese	9.3	0.25	5.0	ug/l		6020	11/18/14	1
Potassium	340	37.	1000	ug/l	J	6020	11/18/14	1
Selenium	U	0.38	2.0	ug/l		6020	11/18/14	1
Sodium	5400	110	1000	ug/l		6020	11/18/14	1
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.9			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/17/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/17/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/17/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/17/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/17/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/17/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/17/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/17/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/17/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/17/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

Sample ID : EB-EP-04

Collected By : SU/HMI Team
 Collection Date : 11/12/14 13:40

ESC Sample # : L733743-63

Site ID : EVAPORATION PONDS (QA/

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/17/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/17/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/17/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/17/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/17/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/17/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/17/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/17/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/17/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/17/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/17/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/17/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/17/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/17/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/17/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/17/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/17/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/17/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/17/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/17/14	1
Surrogate Recovery								
Toluene-d8	97.3			% Rec.		8260B	11/17/14	1
Dibromofluoromethane	109.			% Rec.		8260B	11/17/14	1
4-Bromofluorobenzene	104.			% Rec.		8260B	11/17/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	56.	22.	100	ug/l	J	8015	11/19/14	1
C28-C40 Oil Range	140	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	140.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-64

Sample ID : TRIP BLANK-EP-01

Site ID : EVAPORATION PONDS (QA/

Collected By : SU/HMI Team
 Collection Date : 11/12/14 00:00

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/17/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/17/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/17/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/17/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/17/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/17/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/17/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/17/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/17/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/17/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/17/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/17/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/17/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/17/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/17/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/17/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/17/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/17/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/17/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/17/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/17/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/17/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/17/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/17/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/17/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : TRIP BLANK-EP-01
 Collected By : SU/HMI Team
 Collection Date : 11/12/14 00:00

ESC Sample # : L733743-64

Site ID : EVAPORATION PONDS (QA/

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/17/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/17/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/17/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/17/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/17/14	1
Surrogate Recovery								
Toluene-d8	102.			%	Rec.	8260B	11/17/14	1
Dibromofluoromethane	101.			%	Rec.	8260B	11/17/14	1
4-Bromofluorobenzene	104.			%	Rec.	8260B	11/17/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-65

Sample ID : TRIP BLANK-EP-02

Site ID : EVAPORATION PONDS (QA/

Collected By : SU/HMI Team
 Collection Date : 11/13/14 00:00

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/17/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/17/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/17/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/17/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/17/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/17/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/17/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/17/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/17/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/17/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/17/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/17/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/17/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/17/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/17/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/17/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/17/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/17/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/17/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/17/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/17/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/17/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/17/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/17/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/17/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/17/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/17/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/17/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/17/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/17/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/17/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/17/14	1

U = ND (Not Detected)
 RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
 MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:
 The reported analytical results relate only to the sample submitted.
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42



12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
 ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Date Received : November 15, 2014
 Description : Navajo Refining Company - Artesia, NM
 Sample ID : TRIP BLANK-EP-02
 Collected By : SU/HMI Team
 Collection Date : 11/13/14 00:00

ESC Sample # : L733743-65

Site ID : EVAPORATION PONDS (QA/

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/17/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/17/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/17/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/17/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/17/14	1
Surrogate Recovery								
Toluene-d8	105.			%	Rec.	8260B	11/17/14	1
Dibromofluoromethane	101.			%	Rec.	8260B	11/17/14	1
4-Bromofluorobenzene	102.			%	Rec.	8260B	11/17/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 01/23/15 14:45 Revised: 01/27/15 11:42

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
	WG755200	SAMP	Lead	R3005473	J
	WG755434	SAMP	Molybdenum,Dissolved	R3005770	J
	WG755200	SAMP	Nickel	R3005473	JB
	WG755434	SAMP	Nickel,Dissolved	R3005770	J
	WG755434	SAMP	Zinc,Dissolved	R3005770	J
L733743-14	WG755284	SAMP	Chloride	R3006053	JP1
	WG755284	SAMP	Sulfate	R3006053	J
	WG755434	SAMP	Aluminum,Dissolved	R3005770	J
	WG755434	SAMP	Calcium,Dissolved	R3005770	J
	WG755200	SAMP	Lead	R3005473	J
L733743-15	WG755545	SAMP	C10-C28 Diesel Range	R3005780	J
	WG755545	SAMP	C28-C40 Oil Range	R3005780	J
	WG755434	SAMP	Aluminum,Dissolved	R3005770	J
	WG755200	SAMP	Chromium	R3005473	J
	WG755434	SAMP	Chromium,Dissolved	R3005770	JB
	WG755434	SAMP	Copper,Dissolved	R3005770	J
	WG755434	SAMP	Cobalt,Dissolved	R3005770	J
	WG755200	SAMP	Lead	R3005473	J
	WG755200	SAMP	Nickel	R3005473	B
	WG755434	SAMP	Zinc,Dissolved	R3005770	J
L733743-16	WG754786	SAMP	1,1,1-Trichloroethane	R3005284	J4
L733743-17	WG754786	SAMP	1,1,1-Trichloroethane	R3005284	J4
L733743-18	WG754786	SAMP	1,1,1-Trichloroethane	R3005284	J4
L733743-19	WG754786	SAMP	1,1,1-Trichloroethane	R3005284	J4
L733743-20	WG754786	SAMP	1,1,1-Trichloroethane	R3005284	J4
L733743-25	WG755545	SAMP	C28-C40 Oil Range	R3005780	J
	WG755200	SAMP	Selenium	R3005226	J
	WG754909	SAMP	Bromomethane	R3005871	J4
	WG754909	SAMP	2-Hexanone	R3005871	J5
	WG754909	SAMP	4-Methyl-2-pentanone (MIBK)	R3005871	J5
L733743-26	WG755200	SAMP	Barium	R3005226	J
	WG756231	SAMP	Chloroethane	R3006056	J4
	WG756231	SAMP	Isopropylbenzene	R3006056	J
L733743-27	WG755200	SAMP	Barium	R3005226	J
	WG756231	SAMP	sec-Butylbenzene	R3006056	J
	WG756231	SAMP	Chloroethane	R3006056	J4
	WG756231	SAMP	Methyl tert-butyl ether	R3006056	J
L733743-28	WG755200	SAMP	Barium	R3005226	J
	WG755200	SAMP	Selenium	R3005226	J
	WG756231	SAMP	Chloroethane	R3006056	J4
	WG756231	SAMP	Methyl tert-butyl ether	R3006056	J
L733743-29	WG755200	SAMP	Barium	R3005226	J
	WG755200	SAMP	Chromium	R3005226	J
	WG755162	SAMP	Nitrate-Nitrite	R3004978	J6
	WG754909	SAMP	Bromomethane	R3005871	J4
L733743-30	WG755201	SAMP	Calcium	R3007735	V
	WG755201	SAMP	Chromium	R3005767	JB
	WG755201	SAMP	Lead	R3005767	J
	WG755201	SAMP	Manganese	R3005767	V
	WG755201	SAMP	Selenium	R3005767	J
	WG755201	SAMP	Sodium	R3007735	V
	WG755979	SAMP	Fluoride	R3006045	J6
	WG754909	SAMP	Bromomethane	R3005871	J4
L733743-31	WG755119	SAMP	C10-C28 Diesel Range	R3005573	J
	WG755119	SAMP	C28-C40 Oil Range	R3005573	J
	WG755201	SAMP	Chromium	R3005767	JB
	WG755201	SAMP	Lead	R3005767	J
	WG755201	SAMP	Nickel	R3005767	B
	WG755201	SAMP	Vanadium	R3005767	J
	WG754909	SAMP	Bromomethane	R3005871	J4
L733743-32	WG755201	SAMP	Chromium	R3005767	JB
	WG755201	SAMP	Selenium	R3005767	J
	WG754909	SAMP	Bromomethane	R3005871	J4
L733743-33	WG756145	SAMP	Chromium	R3006379	J
	WG755201	SAMP	Selenium	R3005767	J
	WG754909	SAMP	Bromomethane	R3005871	J4
L733743-34	WG755545	SAMP	o-Terphenyl	R3005967	J7
	WG755201	SAMP	Chromium	R3005767	JB
	WG754909	SAMP	Acetone	R3005871	J
	WG754909	SAMP	Bromomethane	R3005871	J4

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier	
L733743-35	WG754909	SAMP	Methyl tert-butyl ether	R3005871	J	
	WG755201	SAMP	Lead	R3005767	J	
L733743-36	WG754909	SAMP	Bromomethane	R3005871	J4	
	WG755201	SAMP	Methyl tert-butyl ether	R3005871	J	
L733743-37	WG754909	SAMP	Lead	R3005767	J	
	WG754909	SAMP	Benzene	R3005871	J	
	WG754909	SAMP	Bromomethane	R3005871	J4	
	WG754909	SAMP	1,2,4-Trimethylbenzene	R3005871	J	
	WG755119	SAMP	o-Terphenyl	R3005966	J7	
	WG755201	SAMP	Barium	R3005767	J	
	WG755201	SAMP	Lead	R3005767	J	
	WG754909	SAMP	Acetone	R3005871	J	
	WG754909	SAMP	Bromomethane	R3005871	J4	
	WG754909	SAMP	sec-Butylbenzene	R3005871	J	
	WG754909	SAMP	p-Isopropyltoluene	R3005871	J	
	WG754909	SAMP	Toluene	R3005871	J	
L733743-38	WG754909	SAMP	1,3,5-Trimethylbenzene	R3005871	J	
	WG754909	SAMP	o-Xylene	R3005871	J	
	WG754909	SAMP	m&p-Xylene	R3005871	J	
	WG754909	SAMP	Xylenes, Total	R3005871	J	
	WG754943	SAMP	TPH (GC/FID) Low Fraction	R3005655	J	
	WG755201	SAMP	Chromium	R3005767	JB	
	WG755201	SAMP	Selenium	R3005767	J	
	WG754909	SAMP	Bromomethane	R3005871	J4	
	L733743-39	WG755201	SAMP	Lead	R3005767	J
		WG754909	SAMP	Acetone	R3005871	J
WG754909		SAMP	Bromomethane	R3005871	J4	
WG754909		SAMP	sec-Butylbenzene	R3005871	J	
WG754909		SAMP	Ethylbenzene	R3005871	J	
WG754909		SAMP	Toluene	R3005871	J	
WG754909		SAMP	o-Xylene	R3005871	J	
WG755117		SAMP	o-Terphenyl	R3005970	J7	
L733743-40	WG755201	SAMP	Chromium	R3005767	B	
	WG754909	SAMP	Acetone	R3005871	J	
	WG754909	SAMP	Benzene	R3005871	J	
	WG754909	SAMP	Bromomethane	R3005871	J4	
	WG754909	SAMP	Ethylbenzene	R3005871	J	
	WG754909	SAMP	Isopropylbenzene	R3005871	J	
	WG754909	SAMP	2-Butanone (MEK)	R3005871	J	
	WG754909	SAMP	o-Xylene	R3005871	J	
	L733743-41	WG755119	SAMP	C28-C40 Oil Range	R3005966	J
		WG755201	SAMP	Chromium	R3005767	JB
WG755201		SAMP	Selenium	R3005767	J	
WG754909		SAMP	Bromomethane	R3005871	J4	
L733743-42		WG754943	SAMP	TPH (GC/FID) Low Fraction	R3005655	J
	WG755201	SAMP	Selenium	R3005767	J	
	WG754909	SAMP	Bromomethane	R3005871	J4	
L733743-43	WG754943	SAMP	TPH (GC/FID) Low Fraction	R3005655	J	
	WG755201	SAMP	Lead	R3006331	J	
L733743-44	WG754909	SAMP	Bromomethane	R3005871	J4	
	WG755201	SAMP	Lead	R3006331	J	
L733743-45	WG755168	SAMP	Nitrate-Nitrite	R3005105	J6	
	WG754909	SAMP	Bromomethane	R3005871	J4	
L733743-46	WG755201	SAMP	Lead	R3006331	J	
	WG755201	SAMP	Chromium	R3005767	JB	
	WG755201	SAMP	Lead	R3006331	J	
L733743-47	WG755201	SAMP	Selenium	R3005767	J	
	WG754914	SAMP	Acetone	R3005411	J	
	WG755119	SAMP	C28-C40 Oil Range	R3005966	J	
	WG755201	SAMP	Chromium	R3005767	JB	
L733743-48	WG755201	SAMP	Lead	R3006331	J	
	WG755201	SAMP	Selenium	R3005767	J	
	WG755201	SAMP	Chromium	R3005767	JB	
L733743-49	WG755117	SAMP	C10-C28 Diesel Range	R3005510	J	
	WG755201	SAMP	Chromium	R3005767	JB	
L733743-50	WG755117	SAMP	C10-C28 Diesel Range	R3005510	J	
	WG755208	SAMP	Arsenic	R3005302	J	
	WG755208	SAMP	Barium	R3005302	J	
	WG755208	SAMP	Calcium	R3005302	V	
	WG755208	SAMP	Iron	R3005302	V	

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
	WG755208	SAMP	Manganese	R3005302	01J5
	WG755208	SAMP	Potassium	R3005302	01J5
	WG755208	SAMP	Selenium	R3005302	J
	WG755208	SAMP	Sodium	R3005302	01V
L733743-51	WG755117	SAMP	C10-C28 Diesel Range	R3005510	J
	WG755208	SAMP	Arsenic	R3005302	J
L733743-52	WG755208	SAMP	Arsenic	R3005302	J
L733743-53	WG755208	SAMP	Barium	R3005302	J
	WG755208	SAMP	Chromium	R3005302	J
L733743-54	WG755208	SAMP	Barium	R3005302	J
	WG755208	SAMP	Selenium	R3005302	J
	WG754914	SAMP	1,2,4-Trimethylbenzene	R3005411	J
L733743-55	WG755208	SAMP	Vanadium	R3005302	J
L733743-57	WG755208	SAMP	Barium	R3005302	J
L733743-58	WG755208	SAMP	Barium	R3005302	J
	WG755208	SAMP	Chromium	R3005302	J
	WG755208	SAMP	Potassium	R3005302	J
L733743-59	WG755208	SAMP	Barium	R3005302	J
	WG755208	SAMP	Iron	R3005302	J
	WG754914	SAMP	Isopropylbenzene	R3005411	J
L733743-60	WG755117	SAMP	C10-C28 Diesel Range	R3005510	J
	WG755137	SAMP	Dissolved Solids	R3005387	T4
	WG755208	SAMP	Calcium	R3005302	J
	WG755208	SAMP	Potassium	R3005302	J
	WG755208	SAMP	Selenium	R3005302	J
	WG755980	SAMP	Chloride	R3006136	JP1
	WG755980	SAMP	Fluoride	R3006136	J
	WG755980	SAMP	Sulfate	R3006136	JP1
L733743-61	WG755119	SAMP	C28-C40 Oil Range	R3005966	J
	WG755208	SAMP	Arsenic	R3005302	J
	WG755208	SAMP	Chromium	R3005302	J
	WG755208	SAMP	Potassium	R3005302	J
	WG755980	SAMP	Fluoride	R3006136	J
	WG755980	SAMP	Sulfate	R3006136	J
L733743-62	WG755119	SAMP	C10-C28 Diesel Range	R3005966	J
	WG755119	SAMP	C28-C40 Oil Range	R3005966	J
	WG755344	SAMP	Dissolved Solids	R3005636	J
	WG755208	SAMP	Calcium	R3005302	J
	WG755208	SAMP	Sodium	R3005302	J
	WG755980	SAMP	Chloride	R3006136	J
	WG755980	SAMP	Sulfate	R3006136	J
L733743-63	WG755117	SAMP	C10-C28 Diesel Range	R3005510	J
	WG755137	SAMP	Dissolved Solids	R3005387	T4
	WG755208	SAMP	Arsenic	R3005302	J
	WG755208	SAMP	Chromium	R3005302	J
	WG755208	SAMP	Potassium	R3005302	J
	WG755980	SAMP	Chloride	R3006136	J
	WG755980	SAMP	Fluoride	R3006136	J
	WG755980	SAMP	Sulfate	R3006136	J
L733743-66	WG755117	SAMP	C10-C28 Diesel Range	R3005510	J
	WG755208	SAMP	Chromium	R3005302	J
L733743-67	WG755119	SAMP	C10-C28 Diesel Range	R3005966	J
	WG755119	SAMP	C28-C40 Oil Range	R3005966	J
	WG755208	SAMP	Lead	R3005302	J
	WG754915	SAMP	Bromoform	R3005557	J5
	WG754915	SAMP	Carbon disulfide	R3005557	J3
	WG754915	SAMP	Chlorodibromomethane	R3005557	J5
	WG754915	SAMP	1,1-Dichloroethene	R3005557	J3
	WG754915	SAMP	Vinyl chloride	R3005557	J3
L733743-69	WG755208	SAMP	Selenium	R3005302	J
	WG755736	SAMP	Bromomethane	R3005627	J4
	WG755736	SAMP	p-Isopropyltoluene	R3005627	J
	WG755736	SAMP	Naphthalene	R3005627	J
	WG755736	SAMP	Toluene	R3005627	J
L733743-70	WG755736	SAMP	1,3,5-Trimethylbenzene	R3005627	J
	WG755208	SAMP	Chromium	R3005302	J
	WG755736	SAMP	Bromomethane	R3005627	J4
	WG755736	SAMP	Ethylbenzene	R3005627	J
	WG755736	SAMP	Toluene	R3005627	J
	WG755736	SAMP	1,2,4-Trimethylbenzene	R3005627	J

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
B	(EPA) - The indicated compound was found in the associated method blank as well as the laboratory sample.
E	GTL (EPA) - Greater than upper calibration limit: Actual value is known to be greater than the upper calibration range.
J	(EPA) - Estimated value below the lowest calibration point. Confidence correlates with concentration.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
O1	(ESC) The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
Q	(ESC) Sample held beyond the accepted holding time.
T4	(ESC) - Additional method/sample information: QNS - Quantity Not Sufficient
V	(ESC) - Additional QC Info: The sample concentration is too high to evaluate accurate spike recoveries.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

- Accuracy** - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision** - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate** - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC** - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds,

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
-----------	---------

or surrogates.

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 9056MOD		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755279
Analysis Date:	11/22/2014 8:01:00 AM	Analyst:	577
Instrument ID:	IC-10		
Sample Numbers:	L733743-01, -02		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.244	98	90 - 110	
Fluoride	1	8	8.2607	103	90 - 110	
Sulfate	1	40	40.293	101	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.199	98	90 - 110	
Fluoride	1	8	8.23	103	90 - 110	
Sulfate	1	40	40.086	100	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Chloride	1	40	39.244	98	39.199	98	90 - 110	0	20	
Fluoride	1	8	8.2607	103	8.23	103	90 - 110	0	20	
Sulfate	1	40	40.293	101	40.086	100	90 - 110	1	20	

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Anions by Method 9056MOD		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755284
Analysis Date:	11/22/2014 9:34:00 AM	Analyst:	236
Instrument ID:	IC-5		
Sample Numbers:	L733743-03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -66, -67, -69, -70, -71, -72, -73		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	0.161	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	0.269	

Laboratory Control Sample (LCS)						
Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.368	98	90 - 110	
Fluoride	1	8	8.2359	103	90 - 110	
Sulfate	1	40	40.125	100	90 - 110	

Laboratory Control Sample Duplicate (LCSD)						
Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.294	98	90 - 110	
Fluoride	1	8	8.2141	103	90 - 110	
Sulfate	1	40	40.046	100	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate										
Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Chloride	1	40	39.368	98	39.294	98	90 - 110	0	20	
Fluoride	1	8	8.2359	103	8.2141	103	90 - 110	0	20	
Sulfate	1	40	40.125	100	40.046	100	90 - 110	0	20	

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Anions by Method 9056MOD		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755463
Analysis Date:	11/20/2014 2:06:00 AM	Analyst:	577
Instrument ID:	IC-8		
Sample Numbers:	L733743-56, -74, -75, -100, -101, -102		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)						
Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.350	98	90 - 110	
Fluoride	1	8	8.1881	102	90 - 110	
Sulfate	1	40	40.245	101	90 - 110	

Laboratory Control Sample Duplicate (LCSD)						
Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.318	98	90 - 110	
Fluoride	1	8	8.204	103	90 - 110	
Sulfate	1	40	40.258	101	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate										
Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Chloride	1	40	39.350	98	39.318	98	90 - 110	0	20	
Fluoride	1	8	8.1881	102	8.204	103	90 - 110	0	20	
Sulfate	1	40	40.245	101	40.258	101	90 - 110	0	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755572
Analysis Date:	11/21/2014 7:01:00 PM	Analyst:	577
Instrument ID:	IC-5		
Sample Numbers:	L733743-103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	0.158	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.429	99	90 - 110	
Fluoride	1	8	8.2969	104	90 - 110	
Sulfate	1	40	40.242	101	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.390	98	90 - 110	
Fluoride	1	8	8.3157	104	90 - 110	
Sulfate	1	40	40.279	101	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Qual	% RPD	Control RPD Limits	Qual
Chloride	1	40	39.429	99	39.390	98	90 - 110	99		0	20	
Fluoride	1	8	8.2969	104	8.3157	104	90 - 110	104		0	20	
Sulfate	1	40	40.242	101	40.279	101	90 - 110	101		0	20	

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755573
Analysis Date:	11/22/2014 1:53:00 AM	Analyst:	577
Instrument ID:	IC-8		
Sample Numbers:	L733743-123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)						
Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.351	98	90 - 110	
Fluoride	1	8	8.2295	103	90 - 110	
Sulfate	1	40	40.729	102	90 - 110	

Laboratory Control Sample Duplicate (LCSD)						
Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.292	98	90 - 110	
Fluoride	1	8	8.2219	103	90 - 110	
Sulfate	1	40	40.703	102	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate										
Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Chloride	1	40	39.351	98	39.292	98	90 - 110	0	20	
Fluoride	1	8	8.2295	103	8.2219	103	90 - 110	0	20	
Sulfate	1	40	40.729	102	40.703	102	90 - 110	0	20	

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755977
Analysis Date:	11/22/2014 10:35:00 PM	Analyst:	236
Instrument ID:	IC-9		
Sample Numbers:	L733743-25, -26, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158, -159, -		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)						
Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.265	98	90 - 110	
Fluoride	1	8	7.9391	99	90 - 110	
Sulfate	1	40	39.996	100	90 - 110	

Laboratory Control Sample Duplicate (LCSD)						
Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.172	98	90 - 110	
Fluoride	1	8	7.9189	99	90 - 110	
Sulfate	1	40	39.829	100	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate										
Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Chloride	1	40	39.265	98	39.172	98	90 - 110	98	0	20
Fluoride	1	8	7.9391	99	7.9189	99	90 - 110	99	0	20
Sulfate	1	40	39.996	100	39.829	100	90 - 110	100	0	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755979
Analysis Date:	11/22/2014 8:49:00 PM	Analyst:	236
Instrument ID:	IC-8		
Sample Numbers:	L733743-27, -28, -29, -30, -31, -32, -34, -35, -36, -37, -38, -39, -40, -43, -44, -45, -46, -47, -48, -52		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.440	99	90 - 110	
Fluoride	1	8	8.1724	102	90 - 110	
Sulfate	1	40	40.561	101	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.458	99	90 - 110	
Fluoride	1	8	8.2033	103	90 - 110	
Sulfate	1	40	40.661	102	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Chloride	1	40	39.440	99	39.458	99	90 - 110	0	20	
Fluoride	1	8	8.1724	102	8.2033	103	90 - 110	0	20	
Sulfate	1	40	40.561	101	40.661	102	90 - 110	0	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755980
Analysis Date:	11/23/2014 10:38:00 AM	Analyst:	183
Instrument ID:	IC-5		
Sample Numbers:	L733743-53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	0.157	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.259	98	90 - 110	
Fluoride	1	8	8.1958	102	90 - 110	
Sulfate	1	40	39.812	100	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.185	98	90 - 110	
Fluoride	1	8	8.217	103	90 - 110	
Sulfate	1	40	39.777	99	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Chloride	1	40	39.259	98	39.185	98	90 - 110	0	20	
Fluoride	1	8	8.1958	102	8.217	103	90 - 110	0	20	
Sulfate	1	40	39.812	100	39.777	99	90 - 110	0	20	

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755981
Analysis Date:	11/23/2014 12:22:00 PM	Analyst:	236
Instrument ID:	IC-9		
Sample Numbers:	L733743-87, -88, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	0.286	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)						
Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.325	98	90 - 110	
Fluoride	1	8	8.1434	102	90 - 110	
Sulfate	1	40	39.463	99	90 - 110	

Laboratory Control Sample Duplicate (LCSD)						
Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.054	98	90 - 110	
Fluoride	1	8	8.0158	100	90 - 110	
Sulfate	1	40	39.542	99	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate										
Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Chloride	1	40	39.325	98	39.054	98	90 - 110	1	20	
Fluoride	1	8	8.1434	102	8.0158	100	90 - 110	2	20	
Sulfate	1	40	39.463	99	39.542	99	90 - 110	0	20	

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756286
Analysis Date:	11/24/2014 2:28:00 AM	Analyst:	183
Instrument ID:	IC-8		
Sample Numbers:	L733743-28, -31, -40, -45, -108, -117, -119, -129, -138, -150		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)						
Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.272	98	90 - 110	
Fluoride	1	8	8.1003	101	90 - 110	
Sulfate	1	40	40.161	100	90 - 110	

Laboratory Control Sample Duplicate (LCSD)						
Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.131	98	90 - 110	
Fluoride	1	8	8.0925	101	90 - 110	
Sulfate	1	40	40.176	100	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate										
Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Chloride	1	40	39.272	98	39.131	98	90 - 110	0	20	
Fluoride	1	8	8.1003	101	8.0925	101	90 - 110	0	20	
Sulfate	1	40	40.161	100	40.176	100	90 - 110	0	20	

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Anions by Method 9056MOD		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756784
Analysis Date:	12/2/2014 8:29:00 PM	Analyst:	577
Instrument ID:	IC-9		
Sample Numbers:	L733743-66, -69, -70, -71, -72, -73		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)						
Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.232	98	90 - 110	
Fluoride	1	8	8.0041	100	90 - 110	
Sulfate	1	40	40.019	100	90 - 110	

Laboratory Control Sample Duplicate (LCSD)						
Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.169	98	90 - 110	
Fluoride	1	8	8.0069	100	90 - 110	
Sulfate	1	40	39.998	100	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate										
Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Chloride	1	40	39.232	98	39.169	98	90 - 110	0	20	
Fluoride	1	8	8.0041	100	8.0069	100	90 - 110	0	20	
Sulfate	1	40	40.019	100	39.998	100	90 - 110	0	20	

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Anions by Method 300.0	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG756800
Collection Date:	11/11/2014	Analyst:	577
Analysis Date:	11/26/2014 9:26:00 PM		
Instrument ID:	IC-5		
Sample Numbers:	L733743-53, -54, -55, -57, -58, -59, -155		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	0.238	
Fluoride	16984-48-8	< 0.100	0.0400	
Sulfate	14808-79-8	< 5.00	0.378	

Laboratory Control Sample (LCS)						
Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.234	98	90 - 110	
Fluoride	1	8	8.2733	103	90 - 110	
Sulfate	1	40	40.018	100	90 - 110	

Laboratory Control Sample Duplicate (LCSD)						
Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.231	98	90 - 110	
Fluoride	1	8	8.2823	104	90 - 110	
Sulfate	1	40	39.977	100	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate										
Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Chloride	1	40	39.234	98	39.231	98	90 - 110	0	20	
Fluoride	1	8	8.2733	103	8.2823	104	90 - 110	0	20	
Sulfate	1	40	40.018	100	39.977	100	90 - 110	0	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG757012
Analysis Date:	11/28/2014 1:39:00 PM	Analyst:	577
Instrument ID:	IC-5		
Sample Numbers:	L733743-77, -78, -79, -80, -81, -82, -83, -84, -85, -86		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	0.235	
Fluoride	16984-48-8	< 0.100	0.0409	
Sulfate	14808-79-8	< 5.00	0.379	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.554	99	90 - 110	
Fluoride	1	8	8.4009	105	90 - 110	
Sulfate	1	40	40.468	101	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.280	98	90 - 110	
Fluoride	1	8	8.3117	104	90 - 110	
Sulfate	1	40	40.181	100	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Chloride	1	40	39.554	99	39.280	98	90 - 110	1	20	
Fluoride	1	8	8.4009	105	8.3117	104	90 - 110	1	20	
Sulfate	1	40	40.468	101	40.181	100	90 - 110	1	20	

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Anions by Method 300.0	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG757344
Collection Date:	11/11/2014	Analyst:	236
Analysis Date:	12/1/2014 3:05:00 PM		
Instrument ID:	IC-10		
Sample Numbers:	L733743-85		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)						
Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.016	98	90 - 110	
Fluoride	1	8	8.1381	102	90 - 110	
Sulfate	1	40	39.885	100	90 - 110	

Laboratory Control Sample Duplicate (LCSD)						
Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.007	98	90 - 110	
Fluoride	1	8	8.1458	102	90 - 110	
Sulfate	1	40	39.858	100	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate										
Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Chloride	1	40	39.016	98	39.007	98	90 - 110	98	0	20
Fluoride	1	8	8.1381	102	8.1458	102	90 - 110	102	0	20
Sulfate	1	40	39.885	100	39.858	100	90 - 110	100	0	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 9056MOD		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG758368
Analysis Date:	12/5/2014 1:40:00 PM	Analyst:	577
Instrument ID:	IC-10		
Sample Numbers:	L733743-67		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)						
Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.133	98	90 - 110	
Fluoride	1	8	8.0783	101	90 - 110	
Sulfate	1	40	39.620	99	90 - 110	

Laboratory Control Sample Duplicate (LCSD)						
Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.162	98	90 - 110	
Fluoride	1	8	8.1069	101	90 - 110	
Sulfate	1	40	39.785	99	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate											
Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Qual	Control RPD Limits	Qual
Chloride	1	40	39.133	98	39.162	98	90 - 110	98	0	20	
Fluoride	1	8	8.0783	101	8.1069	101	90 - 110	101	0	20	
Sulfate	1	40	39.620	99	39.785	99	90 - 110	99	0	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 9056MOD	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755279
Collection Date:	11/11/2014	Analyst:	577
Analysis Date:	11/22/2014 8:01:00 AM		
Instrument ID:	IC-10		
Sample Numbers:	L733743-01, -02		

Sample Duplicate

L732952-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	53.587	53.551	0	20	

Sample Duplicate

L733283-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	0.2328	0.2657	0	20	
Sulfate	1	0.2466	0.0849	0	20	

Matrix Spike / Matrix Spike Duplicate

L733584-02

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Fluoride	1	5	0.0554	5.0523	100	5.0463	100	80 - 120	0	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 9056MOD	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755284
Collection Date:	11/11/2014	Analyst:	236
Analysis Date:	11/22/2014 9:34:00 AM		
Instrument ID:	IC-5		
Sample Numbers:	L733743-03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -66, -67, -69, -70, -71, -72, -73		

Sample Duplicate

L733743-05

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	0.3203	0.1876	52	20	P1
Fluoride	1	<0.0099	<0.0099		20	
Sulfate	1	0.4482	0.2723	49	20	P1

Sample Duplicate

L733743-14

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	0.2632	0.1952	30	20	P1
Fluoride	1	<0.0099	<0.0099		20	
Sulfate	1	0.3062	0.2727	12	20	

Matrix Spike / Matrix Spike Duplicate

L733743-11

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	1	50	0.2912	49.289	98	49.774	99	80 - 120	1	20	
Fluoride	1	5	0.0	4.9441	99	4.935	99	80 - 120	0	20	
Sulfate	1	50	0.3646	49.393	98	49.588	98	80 - 120	0	20	

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Anions by Method 9056MOD			Matrix:	Water - mg/L
Project No:	TX000836.0008.00004			EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM			Analytic Batch:	WG755463
Collection Date:	11/11/2014			Analyst:	577
Analysis Date:	11/20/2014 2:06:00 AM				
Instrument ID:	IC-8				
Sample Numbers:	L733743-56, -74, -75, -100, -101, -102				

Sample Duplicate

L732989-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Fluoride	1	0.6026	0.6265	4	20	

Sample Duplicate

L733018-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Fluoride	1	0.2725	0.2842	4	20	

Sample Duplicate

L733146-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Fluoride	1	0.7431	0.7454	0	20	

Sample Duplicate

L733046-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Fluoride	1	0.3701	0.3688	0	20	

Matrix Spike / Matrix Spike Duplicate

L733124-02

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Sulfate	5	10	105.69	345.67	96	344.99	96	80 - 120	0	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755572
Collection Date:	11/11/2014	Analyst:	577
Analysis Date:	11/21/2014 7:01:00 PM		
Instrument ID:	IC-5		
Sample Numbers:	L733743-103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121		

Sample Duplicate

L733743-122

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	95.551	95.436	0	20	
Fluoride	1	2.9689	2.9631	0	20	
Sulfate	50	1980.8	1995.9	1	20	

Sample Duplicate

L733743-109

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	50	204.86	194.38	5	20	
Fluoride	1	3.141	3.0939	2	20	
Sulfate	50	1713.0	1645.6	4	20	

Matrix Spike / Matrix Spike Duplicate

L733743-113

Analyte	Dil	Spike		% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
		Value	Sample MS								
Chloride	1	50	53.764	99.938	92	99.277	91	80 - 120	1	20	
Fluoride	1	5	2.1014	6.879	96	6.5587	89	80 - 120	5	20	
Sulfate	10	5	712.33	1170.0	92	1171.3	92	80 - 120	0	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755573
Collection Date:	11/11/2014	Analyst:	577
Analysis Date:	11/22/2014 1:53:00 AM		
Instrument ID:	IC-8		
Sample Numbers:	L733743-123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141		

Sample Duplicate

L733743-133

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	100	1321.1	1304.5	1	20	
Fluoride	1	0.7767	0.7896	2	20	
Sulfate	100	2510.3	2533.1	1	20	

Sample Duplicate

L733743-124

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	49.161	49.051	0	20	
Fluoride	1	2.6573	2.6503	0	20	
Sulfate	50	2311.9	2247.0	3	20	

Matrix Spike / Matrix Spike Duplicate

L733743-123

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	50	1	159.21	2668.2	100	2616.8	98	80 - 120	2	20	
Fluoride	1	5	4.918	8.0736	63	8.0489	63	80 - 120	J6	0	20
Sulfate	50	1	2707.7	5022.3	93	4976.3	91	80 - 120	1	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755977
Analysis Date:	11/22/2014 10:35:00 PM	Analyst:	236
Instrument ID:	IC-9		
Sample Numbers:	L733743-25, -26, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158, -159, -		

Sample Duplicate

L733743-158

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	0.071	-0.059	2227	20	P1
Fluoride	1	<0.0099	<0.0099		20	
Sulfate	1	<0.0774	<0.0774		20	

Sample Duplicate

L733743-160

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	0.4272	0.6595	43	20	P1
Fluoride	1	<0.0099	<0.0099		20	
Sulfate	1	1.1871	0.0342	189	20	P1

Matrix Spike / Matrix Spike Duplicate

L733743-159

Analyte	Dil	Spike		% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
		Value	Sample MS								
Chloride	1	50	4.2589 53.580	99	53.395	98	80 - 120		0	20	
Fluoride	1	5	-0.027 4.6583	93	4.651	93	80 - 120		0	20	
Sulfate	1	50	-0.324 49.449	99	49.203	98	80 - 120		0	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755979
Analysis Date:	11/22/2014 8:49:00 PM	Analyst:	236
Instrument ID:	IC-8		
Sample Numbers:	L733743-27, -28, -29, -30, -31, -32, -34, -35, -36, -37, -38, -39, -40, -43, -44, -45, -46, -47, -48, -52		

Sample Duplicate

L733743-39

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	13.904	13.848	0	20	
Fluoride	1	3.8939	3.8377	1	20	
Sulfate	50	4153.2	3975.4	4	20	

Sample Duplicate

L733743-29

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	50	3640.1	3476.5	5	20	
Fluoride	1	0.6882	0.6887	0	20	
Sulfate	50	4082.5	3905.5	4	20	

Matrix Spike / Matrix Spike Duplicate

L733743-30

Analyte	Dil	Spike		% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
		Value	Sample MS								
Chloride	50	1	1679.3 3964.6	91	3930.6	90	80 - 120		1	20	
Fluoride	1	5	0.8815 4.4617	72	4.5159	73	80 - 120	J6	1	20	
Sulfate	50	1	2791.4 4860.4	83	4822.8	81	80 - 120		1	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755980
Collection Date:	11/11/2014	Analyst:	183
Analysis Date:	11/23/2014 10:38:00 AM		
Instrument ID:	IC-5		
Sample Numbers:	L733743-53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86		

Sample Duplicate

L733743-60

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	0.3973	0.3178	22	20	P1
Fluoride	1	0.0399	0.041	3	20	
Sulfate	1	0.7088	0.3049	80	20	P1

Sample Duplicate

L733743-63

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	0.2648	0.2666	1	20	
Fluoride	1	0.0465	0.0442	5	20	
Sulfate	1	0.3584	0.2957	19	20	

Matrix Spike / Matrix Spike Duplicate

L733743-61

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	1	50	1.0151	49.961	98	49.299	97	80 - 120	1	20	
Fluoride	1	5	0.0439	4.9061	97	4.7997	95	80 - 120	2	20	
Sulfate	1	50	0.2883	49.215	98	48.719	97	80 - 120	1	20	



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755981
Analysis Date:	11/23/2014 12:22:00 PM	Analyst:	236
Instrument ID:	IC-9		
Sample Numbers:	L733743-87, -88, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99		

Sample Duplicate

L733881-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Fluoride	1	0.2176	0.2195	1	20	

Sample Duplicate

L733542-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Sulfate	10	319.20	285.45	11	20	

Matrix Spike / Matrix Spike Duplicate

L733743-88

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	1	50	2.6887	52.370	99	51.364	97	80 - 120	2	20	
Fluoride	1	5	-0.029	4.7432	95	4.8963	98	80 - 120	3	20	
Sulfate	1	50	2.093	49.874	96	48.513	93	80 - 120	3	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756286
Analysis Date:	11/24/2014 2:28:00 AM	Analyst:	183
Instrument ID:	IC-8		
Sample Numbers:	L733743-28, -31, -40, -45, -108, -117, -119, -129, -138, -150		

Sample Duplicate

L733884-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Sulfate	10	236.85	235.93	0	20	

Matrix Spike / Matrix Spike Duplicate

L733743-129

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Sulfate	5	10	251.51	466.34	86	464.75	85	80 - 120	0	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 9056MOD			Matrix:	Water - mg/L
Project No:	TX000836.0008.00004			EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM			Analytic Batch:	WG756784
Collection Date:	11/11/2014			Analyst:	577
Analysis Date:	12/2/2014 8:29:00 PM				
Instrument ID:	IC-9				
Sample Numbers:	L733743-66, -69, -70, -71, -72, -73				

Sample Duplicate

L735467-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	20.887	20.747	1	20	
Sulfate	1	2.0146	2.0992	4	20	

Sample Duplicate

L735897-02

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	8.259	8.3673	1	20	

Matrix Spike / Matrix Spike Duplicate

L735467-03

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	1	50	35.065	82.632	95	83.748	97	80 - 120	1	20	
Sulfate	1	50	4.3213	54.180	100	54.016	99	80 - 120	0	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG756800
Collection Date:	11/11/2014	Analyst:	577
Analysis Date:	11/26/2014 9:26:00 PM		
Instrument ID:	IC-5		
Sample Numbers:	L733743-53, -54, -55, -57, -58, -59, -155		

Sample Duplicate

L734837-03

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	35.123	29.836	16	20	

Matrix Spike / Matrix Spike Duplicate

L734613-01

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	1	50	21.085	65.995	90	66.899	92	80 - 120	1	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0			Matrix:	Water - mg/L
Project No:	TX000836.0008.00004		EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM			Analytic Batch:	WG757012
Collection Date:	11/11/2014			Analyst:	577
Analysis Date:	11/28/2014 1:39:00 PM				
Instrument ID:	IC-5				
Sample Numbers:	L733743-77, -78, -79, -80, -81, -82, -83, -84, -85, -86				

Sample Duplicate

L733743-84

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	10	340.81	319.31	7	20	
Sulfate	10	723.53	693.31	4	20	

Sample Duplicate

L734287-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	97.954	92.737	5	20	

Matrix Spike / Matrix Spike Duplicate

L734867-01

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	1	50	97.719	142.85	90	142.91	90	80 - 120	0	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG757344
Collection Date:	11/11/2014	Analyst:	236
Analysis Date:	12/1/2014 3:05:00 PM		
Instrument ID:	IC-10		
Sample Numbers:	L733743-85		

Sample Duplicate

L735431-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	8.9034	9.3844	5	20	
Sulfate	1	13.129	13.429	2	20	

Sample Duplicate

L735078-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	10.408	10.412	0	20	

Matrix Spike / Matrix Spike Duplicate

L735338-10

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	1	50	78.954	124.19	90	121.48	85	80 - 120	2	20	
Sulfate	1	50	2.9194	51.373	97	54.090	102	80 - 120	5	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Anions by Method 9056MOD	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG758368
Collection Date:	11/11/2014	Analyst:	577
Analysis Date:	12/5/2014 1:40:00 PM		
Instrument ID:	IC-10		
Sample Numbers:	L733743-67		

Sample Duplicate

L736163-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Sulfate	5	207.13	203.21	2	20	

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Cyanide by Method 9012B	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755288
Collection Date:	11/11/2014	Analyst:	578
Analysis Date:	11/19/2014 4:52:00 PM		
Instrument ID:	LACHAT4		
Sample Numbers:	L733743-01, -02, -03		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Cyanide	57-12-5	< 0.00500	< 0.00180	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Cyanide	1	0.1	0.103	103	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Cyanide	1	0.1	0.102	102	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Cyanide	1	0.1	0.103	103	0.102	102	90 - 110	0.98	20	

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Cyanide by Method 9012B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755292
Analysis Date:	11/21/2014 7:28:00 AM	Analyst:	183
Instrument ID:	LACHAT4		
Sample Numbers:	L733743-04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -100, -102, -104, -107, -144, -148, -154		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Cyanide	57-12-5	< 0.00500	< 0.00180	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Cyanide	1	0.1	0.105	105	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Cyanide	1	0.1	0.0987	98.7	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	RPD	Qual
Cyanide	1	0.1	0.105	105	0.0987	98.7	90 - 110	6.19	20		

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Cyanide by Method 9012B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755528
Analysis Date:	11/21/2014 8:30:00 AM	Analyst:	183
Instrument ID:	LACHAT4		
Sample Numbers:	L733743-31, -55, -69, -77, -79, -91, -92, -93, -94, -95, -96, -98, -155, -159, -160		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Cyanide	57-12-5	< 0.00500	< 0.00180	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Cyanide	1	0.1	0.105	105	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Cyanide	1	0.1	0.0999	99.9	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	RPD	Qual
Cyanide	1	0.1	0.105	105	0.0999	99.9	90 - 110	4.98	20		



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Cyanide by Method 9012B			Matrix:	Water - mg/L
Project No:	TX000836.0008.00004			EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM			Analytic Batch:	WG755288
Collection Date:	11/11/2014			Analyst:	578
Analysis Date:	11/19/2014 4:52:00 PM				
Instrument ID:	LACHAT4				
Sample Numbers:	L733743-01, -02, -03				

Sample Duplicate

L733811-02

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Cyanide	1	<0.0018	<0.0018		20	

Sample Duplicate

L733743-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Cyanide	1	<0.0018	<0.0018		20	

Matrix Spike / Matrix Spike Duplicate

L733618-05

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Cyanide	1	0.2	0.0	0.201	100	0.2	100	90 - 110		0.5	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Cyanide by Method 9012B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755292
Analysis Date:	11/21/2014 7:28:00 AM	Analyst:	183
Instrument ID:	LACHAT4		
Sample Numbers:	L733743-04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -100, -102, -104, -107, -144, -148, -154		

Sample Duplicate

L733743-05

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Cyanide	1	<0.0018	<0.0018		20	

Sample Duplicate

L733743-10

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Cyanide	1	0.0	0.0023	0	20	

Matrix Spike / Matrix Spike Duplicate

L733743-04

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Cyanide	1	0.2	0.0	0.136	68	0.146	73	90 - 110	J6	7.09	20	

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Cyanide by Method 9012B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755528
Analysis Date:	11/21/2014 8:30:00 AM	Analyst:	183
Instrument ID:	LACHAT4		
Sample Numbers:	L733743-31, -55, -69, -77, -79, -91, -92, -93, -94, -95, -96, -98, -155, -159, -160		

Sample Duplicate

L733743-31

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Cyanide	1	<0.0018	<0.0018		20	

Sample Duplicate

L733743-92

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Cyanide	1	<0.0018	<0.0018		20	

Matrix Spike / Matrix Spike Duplicate

L733620-07

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Cyanide	1	0.2	0.0	0.183	91.5	0.191	95.5	90 - 110	4.28		20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755162
Analysis Date:	11/17/2014 4:17:00 PM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, -29		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Nitrate-Nitrite	7727-37-9	< 0.100	< 0.0197	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.89	97.8	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.57	91.4	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Nitrate-Nitrite	1	5	4.89	97.8	4.57	91.4	90 - 110	6.77	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755168
Analysis Date:	11/18/2014 9:23:00 AM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-30, -31, -32, -34, -35, -36, -37, -38, -39, -40, -43, -44, -45, -46, -47, -48, -52, -53, -54, -55		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Nitrate-Nitrite	7727-37-9	< 0.100	< 0.0197	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	5.13	103	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.82	96.4	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Nitrate-Nitrite	1	5	5.13	103	4.82	96.4	90 - 110	6.23	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755260
Analysis Date:	11/18/2014 12:09:00 PM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, -72, -73, -74, -75, -77, -78, -79		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Nitrate-Nitrite	7727-37-9	< 0.100	< 0.0197	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.86	97.2	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.69	93.8	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Nitrate-Nitrite	1	5	4.86	97.2	4.69	93.8	90 - 110	3.56	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755261
Analysis Date:	11/19/2014 3:38:00 AM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Nitrate-Nitrite	7727-37-9	< 0.100	< 0.0197	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	5.23	105	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.88	97.6	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Nitrate-Nitrite	1	5	5.23	105	4.88	97.6	90 - 110	6.92	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755577
Analysis Date:	11/20/2014 10:46:00 AM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -112, -113, -114, -115, -116, -117, -118, -119, -120		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Nitrate-Nitrite	7727-37-9	< 0.100	< 0.0197	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.99	99.8	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.74	94.8	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Nitrate-Nitrite	1	5	4.99	99.8	4.74	94.8	90 - 110	5.14	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755578
Analysis Date:	11/20/2014 9:27:00 AM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Nitrate-Nitrite	7727-37-9	< 0.100	< 0.0197	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	5.11	102	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.9	98	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Nitrate-Nitrite	1	5	5.11	102	4.9	98	90 - 110	4.2	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755581
Analysis Date:	11/20/2014 2:03:00 AM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158, -159		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Nitrate-Nitrite	7727-37-9	< 0.100	< 0.0197	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	5.28	106	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.99	99.8	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Nitrate-Nitrite	1	5	5.28	106	4.99	99.8	90 - 110	5.65	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755868
Analysis Date:	11/20/2014 4:27:00 AM	Analyst:	183
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-111		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Nitrate-Nitrite	7727-37-9	< 0.100	< 0.0197	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	5.29	106	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	5.03	101	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Nitrate-Nitrite	1	5	5.29	106	5.03	101	90 - 110	5.04	20	



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755162
Analysis Date:	11/17/2014 4:17:00 PM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, -29		

Sample Duplicate

L733743-15

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	3.3	3.49	5.88	20	

Sample Duplicate

L733743-10

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	5	13	13.8	7.41	20	

Matrix Spike / Matrix Spike Duplicate

L733743-29

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Nitrate-Nitrite	1	5	0.0	4.18	83.6	4.3	86	90 - 110	J6	2.83	20	



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755168
Analysis Date:	11/18/2014 9:23:00 AM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-30, -31, -32, -34, -35, -36, -37, -38, -39, -40, -43, -44, -45, -46, -47, -48, -52, -53, -54, -55		

Sample Duplicate

L733743-40

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	0.14	0.138	0	20	

Sample Duplicate

L733743-43

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	1.8	1.75	0	20	

Matrix Spike / Matrix Spike Duplicate

L733743-44

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Nitrate-Nitrite	1	5	3.8	7.31	70.2	7.25	69	90 - 110	J6	0.82	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755260
Analysis Date:	11/18/2014 12:09:00 PM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, -72, -73, -74, -75, -77, -78, -79		

Sample Duplicate

L733743-78

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	0.85	0.666	23.7	20	J3

Sample Duplicate

L733743-67

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	0.0	0.0575	0	20	

Matrix Spike / Matrix Spike Duplicate

L733743-79

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Nitrate-Nitrite	1	5	6.5	11	90	10.6	82	90 - 110	J6	3.7	20	

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755261
Analysis Date:	11/19/2014 3:38:00 AM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100		

Sample Duplicate

L733743-88

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	<0.0197	<0.0197		20	

Sample Duplicate

L733743-90

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	0.0	0.0608	0	20	

Matrix Spike / Matrix Spike Duplicate

L733743-99

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Nitrate-Nitrite	1	5	0.0	2.23	44.6	2.29	45.8	90 - 110	J6	2.65	20	



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755577
Collection Date:	11/11/2014	Analyst:	578
Analysis Date:	11/20/2014 10:46:00 AM		
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -112, -113, -114, -115, -116, -117, -118, -119, -120		

Sample Duplicate

L733743-110

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	<0.0197	<0.0197		20	

Sample Duplicate

L733743-119

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	0.36	0.365	0	20	

Matrix Spike / Matrix Spike Duplicate

L733743-120

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Nitrate-Nitrite	1	5	0.0	4.49	89.8	4.51	90.2	90 - 110	0.44		20	



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755578
Collection Date:	11/11/2014	Analyst:	578
Analysis Date:	11/20/2014 9:27:00 AM		
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139		

Sample Duplicate

L733743-130

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	0.35	0.418	18.2	20	

Sample Duplicate

L733743-139

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	0.0	0.0266	0	20	

Matrix Spike / Matrix Spike Duplicate

L733743-140

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Nitrate-Nitrite	1	5	0.0	4.53	90.6	4.56	91.2	90 - 110	0.66	20		



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755581
Analysis Date:	11/20/2014 2:03:00 AM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158, -159		

Sample Duplicate

L733743-150

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	0.0	0.0414	0	20	

Sample Duplicate

L733743-159

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	<0.0197	<0.0197		20	

Matrix Spike / Matrix Spike Duplicate

L733743-160

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Nitrate-Nitrite	1	5	0.0	4.41	88.2	4.56	91.2	90 - 110	J6	3.34	20	



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2			Matrix:	Water - mg/L
Project No:	TX000836.0008.00004			EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM			Analytic Batch:	WG755868
Collection Date:	11/11/2014			Analyst:	183
Analysis Date:	11/20/2014 4:27:00 AM				
Instrument ID:	LACHAT5				
Sample Numbers:	L733743-111				

Sample Duplicate

L733884-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	2	14	13.82	0	20	

Sample Duplicate

L733889-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	5	21	21.9	4.65	20	

Matrix Spike / Matrix Spike Duplicate

L733605-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Nitrate-Nitrite	1	5	0.31	5.31	100	5.31	100	90 - 110		0	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754846
Analysis Date:	11/18/2014 2:28:00 PM	Analyst:	36
Instrument ID:	WETBAL2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8450	96	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8430	95.8	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Dissolved Solids	1	8800	8450	96	8430	95.8	85 - 115	0.24	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754847
Analysis Date:	11/18/2014 3:21:00 PM	Analyst:	36
Instrument ID:	WETBAL2		
Sample Numbers:	L733743-10, -11, -12, -13, -14, -15		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8920	101	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8650	98.3	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	RPD	Qual
Dissolved Solids	1	8800	8920	101	8650	98.3	85 - 115	3.07	5		



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755020
Analysis Date:	11/18/2014 3:38:00 PM	Analyst:	36
Instrument ID:	WETBAL2		
Sample Numbers:	L733743-104, -107, -111, -114, -117, -119, -120, -121, -125, -126, -127, -128, -129, -131, -132, -139, -141, -142, -143		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8460	96.1	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8320	94.5	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Dissolved Solids	1	8800	8460	96.1	8320	94.5	85 - 115	1.67	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755137
Analysis Date:	11/19/2014 2:38:00 PM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L733743-25, -26, -29, -34, -38, -40, -43, -44, -45, -48, -52, -53, -57, -59, -60, -63, -66, -147, -158, -159		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8470	96.2	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8530	96.9	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Dissolved Solids	1	8800	8470	96.2	8530	96.9	85 - 115	0.71	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755139
Analysis Date:	11/19/2014 3:35:00 PM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L733743-69, -70, -71, -72, -73, -74, -77, -80, -81, -82, -83, -84, -85, -88, -91, -92, -98, -100, -101		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8630	98.1	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8620	98	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Control RPD	Qual
Dissolved Solids	1	8800	8630	98.1	8620	98	85 - 115	0.12	5		



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755145
Analysis Date:	11/19/2014 3:23:00 PM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L733743-102, -103, -105, -106, -108, -109, -110, -112, -113, -115		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8610	97.8	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8600	97.7	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Dissolved Solids	1	8800	8610	97.8	8600	97.7	85 - 115	0.12	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755146
Analysis Date:	11/20/2014 9:06:00 AM	Analyst:	519
Instrument ID:	WETBAL2		
Sample Numbers:	L733743-116, -118, -122, -123, -124, -130, -133, -134, -135, -136		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	7970	90.6	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8350	94.9	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Dissolved Solids	1	8800	7970	90.6	8350	94.9	85 - 115	4.66	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755343
Analysis Date:	11/20/2014 2:59:00 PM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L733743-27, -28, -30, -31, -137, -138, -140, -144, -145, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -160		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8520	96.8	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8580	97.5	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Dissolved Solids	1	8800	8520	96.8	8580	97.5	85 - 115	0.7	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755344
Analysis Date:	11/20/2014 2:45:00 PM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L733743-32, -35, -36, -37, -39, -46, -47, -54, -55, -56, -58, -61, -62, -67, -78, -79, -86, -87, -90, -93		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8690	98.8	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8520	96.8	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Dissolved Solids	1	8800	8690	98.8	8520	96.8	85 - 115	1.98	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755345
Analysis Date:	11/20/2014 3:21:00 PM	Analyst:	519
Instrument ID:	WETBAL2		
Sample Numbers:	L733743-94, -95, -96, -97, -99		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8740	99.3	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8710	99	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Dissolved Solids	1	8800	8740	99.3	8710	99	85 - 115	0.34	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756114
Analysis Date:	11/22/2014 3:47:00 PM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L733743-75		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8640	98.2	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8620	98	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	% RPD	Control RPD Limits	Qual
Dissolved Solids	1	8800	8640	98.2	8620	98	85 - 115	0.23	5			



12065 Lebanon Rd
Mt. Juliet, TN 37122
(615) 758-5858
(800) 767-5859
Fax (615) 758-5859
Tax I.D 62-0814289
Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary SDG: L733743 ARCADIS US - TX

Test: Total Dissolved Solids by Method 2540 C-2011
Project No: TX000836.0008.00004 Matrix: Water - mg/L
Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
Collection Date: 11/11/2014 Analytic Batch: **WG754846**
Analysis Date: 11/18/2014 2:28:00 PM Analyst: 36
Instrument ID: WETBAL2
Sample Numbers: L733743-01, -02, -03, -04, -05, -06, -07, -08, -09

Sample Duplicate

L733699-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	448	448	0	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test: Total Dissolved Solids by Method 2540 C-2011
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754847**
 Analysis Date: 11/18/2014 3:21:00 PM Analyst: 36
 Instrument ID: WETBAL2
 Sample Numbers: L733743-10, -11, -12, -13, -14, -15

Sample Duplicate

L733743-10

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	3385	3375	0.3	5	

Sample Duplicate

L733851-20

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	1228	1278	3.99	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755020
Analysis Date:	11/18/2014 3:38:00 PM	Analyst:	36
Instrument ID:	WETBAL2		
Sample Numbers:	L733743-104, -107, -111, -114, -117, -119, -120, -121, -125, -126, -127, -128, -129, -131, -132, -139, -141, -142, -143		

Sample Duplicate

L733743-104

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	3385	3415	0.88	5	

Sample Duplicate

L733743-146

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	1280	1307.5	2.13	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755137
Analysis Date:	11/19/2014 2:38:00 PM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L733743-25, -26, -29, -34, -38, -40, -43, -44, -45, -48, -52, -53, -57, -59, -60, -63, -66, -147, -158, -159		

Sample Duplicate

L733743-147

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	1260	1240	1.6	5	

Sample Duplicate

L733743-66

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	5150	5280	2.49	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755139
Analysis Date:	11/19/2014 3:35:00 PM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L733743-69, -70, -71, -72, -73, -74, -77, -80, -81, -82, -83, -84, -85, -88, -91, -92, -98, -100, -101		

Sample Duplicate

L733743-100

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	2340	2330	0.43	5	

Sample Duplicate

L733743-98

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	3045	2995	1.66	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test: Total Dissolved Solids by Method 2540 C-2011
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG755145**
 Analysis Date: 11/19/2014 3:23:00 PM Analyst: 36
 Instrument ID: WETBAL1
 Sample Numbers: L733743-102, -103, -105, -106, -108, -109, -110, -112, -113, -115

Sample Duplicate

L733743-102

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	2055	2030	1.22	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test: Total Dissolved Solids by Method 2540 C-2011
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG755146**
 Analysis Date: 11/20/2014 9:06:00 AM Analyst: 519
 Instrument ID: WETBAL2
 Sample Numbers: L733743-116, -118, -122, -123, -124, -130, -133, -134, -135, -136

Sample Duplicate

L733743-116

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	1238	1272	2.71	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Total Dissolved Solids by Method 2540 C-2011
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG755343**
 Analysis Date: 11/20/2014 2:59:00 PM Analyst: 36
 Instrument ID: WETBAL1
 Sample Numbers: L733743-27, -28, -30, -31, -137, -138, -140, -144, -145, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -16

Sample Duplicate

L733743-137

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	1870	1875	0.27	5	

Sample Duplicate

L733743-31

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	32000	32240	0.75	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755344
Analysis Date:	11/20/2014 2:45:00 PM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L733743-32, -35, -36, -37, -39, -46, -47, -54, -55, -56, -58, -61, -62, -67, -78, -79, -86, -87, -90, -93		

Sample Duplicate

L733743-32

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	6630	6620	0.15	5	

Sample Duplicate

L733743-93

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	4730	4820	1.88	5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755345
Analysis Date:	11/20/2014 3:21:00 PM	Analyst:	519
Instrument ID:	WETBAL2		
Sample Numbers:	L733743-94, -95, -96, -97, -99		

Sample Duplicate

L733851-06

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	433	447	3.18	5	

Sample Duplicate

L733902-04

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	384	391	1.81	5	



12065 Lebanon Rd
Mt. Juliet, TN 37122
(615) 758-5858
(800) 767-5859
Fax (615) 758-5859
Tax I.D 62-0814289
Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743
ARCADIS US - TX

Test: Total Dissolved Solids by Method 2540 C-2011
Project No: TX000836.0008.00004 Matrix: Water - mg/L
Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
Collection Date: 11/11/2014 **Analytic Batch: WG756114**
Analysis Date: 11/22/2014 3:47:00 PM Analyst: 36
Instrument ID: WETBAL1
Sample Numbers: L733743-75

Sample Duplicate

L733743-75

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	<2.82	<2.82		5	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Mercury by Method 7470A		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754885
Analysis Date:	11/18/2014 7:22:00 AM	Analyst:	657
Instrument ID:	CVAA3	Prep Date:	11/15/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -144, -148, -154, -155, -159		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Mercury	7439-97-6	< 0.200	< 0.0490	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Mercury	1	3	3.0056	100	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Mercury	1	3	2.9888	100	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Mercury	1	3	3.0056	100	2.9888	100	85 - 115	1	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Mercury by Method 7470A		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754886
Analysis Date:	11/18/2014 8:55:00 AM	Analyst:	657
Instrument ID:	CVAA3	Prep Date:	11/15/2014
Sample Numbers:	L733743-31, -55, -69, -77, -79, -91, -92, -93, -94, -95, -96, -98, -100, -102, -104, -107, -160		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Mercury	7439-97-6	< 0.200	< 0.0490	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Mercury	1	3	3.0649	102	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Mercury	1	3	3.0201	101	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Mercury	1	3	3.0649	102	3.0201	101	85 - 115	1	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test: Mercury by Method 7470A
 Project No: TX000836.0008.00004 Matrix: Water - ug/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754885**
 Analysis Date: 11/18/2014 7:22:00 AM Analyst: 657
 Instrument ID: CVAA3 Prep Date: 11/15/2014
 Sample Numbers: L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -144, -148, -154, -155, -159

Serial Dilution

L733743-15

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Mercury	5	<0.049	<0.245		10	

Matrix Spike / Matrix Spike Duplicate

L733743-15

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
Mercury	1	3	0.0327	2.4987	82	2.4645	81	80 - 120	1	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Mercury by Method 7470A		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754886
Analysis Date:	11/18/2014 8:55:00 AM	Analyst:	657
Instrument ID:	CVAA3	Prep Date:	11/15/2014
Sample Numbers:	L733743-31, -55, -69, -77, -79, -91, -92, -93, -94, -95, -96, -98, -100, -102, -104, -107, -160		

Serial Dilution

L733743-94

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Mercury	5	<0.049	<0.245		10	

Matrix Spike / Matrix Spike Duplicate

L733743-94

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Mercury	1	3	0.0296	3.1690	105	3.0273	100	80 - 120	5	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755200
Analysis Date:	11/18/2014 5:20:00 PM	Analyst:	117
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, -29		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Aluminum	7429-90-5	< 100	3.06	
Arsenic	7440-38-2	< 2.00	< 0.250	
Barium	7440-39-3	< 5.00	< 0.360	
Boron	7440-42-8	< 20.0	10.9	B
Cadmium	7440-43-9	< 1.00	< 0.160	
Calcium	7440-70-2	< 1000	< 46.0	
Chromium	7440-47-3	< 1.00	< 0.540	
Cobalt	7440-48-4	< 2.00	< 0.260	
Copper	7440-50-8	< 5.00	< 0.520	
Iron	7439-89-6	< 100	19.2	
Lead	7439-92-1	< 2.00	< 0.240	
Manganese	7439-96-5	< 5.00	0.380	
Molybdenum	7439-98-7	< 5.00	< 0.140	
Nickel	7440-02-0	< 2.00	1.03	B
Potassium	7440-09-7	< 1000	< 37.0	
Selenium	7782-49-2	< 2.00	< 0.380	
Silver	7440-22-4	< 2.00	< 0.310	
Sodium	7440-23-5	< 1000	< 110	
Uranium	7440-61-1	< 10.0	< 0.330	
Vanadium	7440-62-2	< 5.00	< 0.180	
Zinc	7440-66-6	< 25.0	< 2.56	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755201	
Collection Date:	11/11/2014	Analyst:	664	
Analysis Date:	11/20/2014 6:48:00 PM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49			

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Aluminum	7429-90-5	< 100	17.0	
Arsenic	7440-38-2	< 2.00	< 0.250	
Barium	7440-39-3	< 5.00	0.403	
Boron	7440-42-8	< 20.0	2.03	
Cadmium	7440-43-9	< 1.00	< 0.160	
Calcium	7440-70-2	< 1000	144	
Chromium	7440-47-3	1.6	1.6	B
Cobalt	7440-48-4	< 2.00	< 0.260	
Copper	7440-50-8	< 5.00	1.09	
Iron	7439-89-6	< 100	< 15.0	
Lead	7439-92-1	< 2.00	< 0.240	
Manganese	7439-96-5	< 5.00	0.845	
Molybdenum	7439-98-7	< 5.00	< 0.140	
Nickel	7440-02-0	< 2.00	1.22	B
Potassium	7440-09-7	< 1000	245	
Selenium	7782-49-2	< 2.00	< 0.380	
Silver	7440-22-4	< 2.00	< 0.310	
Sodium	7440-23-5	< 1000	324	
Uranium	7440-61-1	< 10.0	< 0.330	
Vanadium	7440-62-2	< 5.00	< 0.180	
Zinc	7440-66-6	< 25.0	7.2	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755204
Analysis Date:	11/25/2014 1:15:00 AM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-100, -101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Aluminum	7429-90-5	< 100	12.0	
Arsenic	7440-38-2	< 2.00	< 0.250	
Barium	7440-39-3	< 5.00	< 0.360	
Boron	7440-42-8	< 20.0	< 1.5	
Cadmium	7440-43-9	< 1.00	< 0.160	
Calcium	7440-70-2	< 1000	< 46.0	
Chromium	7440-47-3	< 1.00	< 0.540	
Cobalt	7440-48-4	< 2.00	< 0.260	
Copper	7440-50-8	< 5.00	< 0.520	
Iron	7439-89-6	< 100	< 15.0	
Lead	7439-92-1	< 2.00	0.639	
Manganese	7439-96-5	< 5.00	< 0.250	
Molybdenum	7439-98-7	< 5.00	< 0.140	
Nickel	7440-02-0	< 2.00	< 0.350	
Potassium	7440-09-7	< 1000	< 37.0	
Selenium	7782-49-2	< 2.00	< 0.380	
Silver	7440-22-4	< 2.00	< 0.310	
Sodium	7440-23-5	< 1000	< 110	
Uranium	7440-61-1	< 10.0	< 0.330	
Vanadium	7440-62-2	< 5.00	< 0.180	
Zinc	7440-66-6	< 25.0	< 2.56	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755205
Analysis Date:	12/1/2014 4:05:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Aluminum	7429-90-5	< 100	2.25	
Arsenic	7440-38-2	< 2.00	< 0.250	
Barium	7440-39-3	< 5.00	0.405	
Boron	7440-42-8	< 20.0	3.11	
Cadmium	7440-43-9	< 1.00	< 0.160	
Calcium	7440-70-2	< 1000	< 46.0	
Chromium	7440-47-3	< 1.00	< 0.540	
Cobalt	7440-48-4	< 2.00	< 0.260	
Copper	7440-50-8	< 5.00	< 0.520	
Iron	7439-89-6	< 100	< 15.0	
Lead	7439-92-1	< 2.00	< 0.240	
Manganese	7439-96-5	< 5.00	< 0.250	
Molybdenum	7439-98-7	< 5.00	< 0.140	
Nickel	7440-02-0	< 2.00	< 0.350	
Potassium	7440-09-7	< 1000	< 37.0	
Selenium	7782-49-2	< 2.00	0.564	
Silver	7440-22-4	< 2.00	< 0.310	
Sodium	7440-23-5	< 1000	< 110	
Uranium	7440-61-1	< 10.0	< 0.330	
Vanadium	7440-62-2	< 5.00	< 0.180	
Zinc	7440-66-6	< 25.0	< 2.56	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755207
Analysis Date:	12/1/2014 6:00:00 PM	Analyst:	117
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-140, -141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Aluminum	7429-90-5	< 100	15.0	
Arsenic	7440-38-2	< 2.00	< 0.250	
Barium	7440-39-3	< 5.00	< 0.360	
Boron	7440-42-8	< 20.0	4.87	
Cadmium	7440-43-9	< 1.00	< 0.160	
Calcium	7440-70-2	< 1000	49.1	
Chromium	7440-47-3	< 1.00	< 0.540	
Cobalt	7440-48-4	< 2.00	< 0.260	
Copper	7440-50-8	< 5.00	< 0.520	
Iron	7439-89-6	< 100	< 15.0	
Lead	7439-92-1	< 2.00	< 0.240	
Manganese	7439-96-5	< 5.00	< 0.250	
Molybdenum	7439-98-7	< 5.00	< 0.140	
Nickel	7440-02-0	< 2.00	< 0.350	
Potassium	7440-09-7	< 1000	< 37.0	
Selenium	7782-49-2	< 2.00	< 0.380	
Silver	7440-22-4	< 2.00	< 0.310	
Sodium	7440-23-5	< 1000	< 110	
Uranium	7440-61-1	< 10.0	< 0.330	
Vanadium	7440-62-2	< 5.00	< 0.180	
Zinc	7440-66-6	< 25.0	< 2.56	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755208	
Collection Date:	11/11/2014	Analyst:	664	
Analysis Date:	11/18/2014 4:01:00 PM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-50, -51, -52, -53, -54, -55, -56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, -72			

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Aluminum	7429-90-5	< 100	2.69	
Arsenic	7440-38-2	< 2.00	< 0.250	
Barium	7440-39-3	< 5.00	< 0.360	
Boron	7440-42-8	< 20.0	< 1.5	
Cadmium	7440-43-9	< 1.00	< 0.160	
Calcium	7440-70-2	< 1000	< 46.0	
Chromium	7440-47-3	< 1.00	< 0.540	
Cobalt	7440-48-4	< 2.00	< 0.260	
Copper	7440-50-8	< 5.00	< 0.520	
Iron	7439-89-6	< 100	< 15.0	
Lead	7439-92-1	< 2.00	< 0.240	
Manganese	7439-96-5	< 5.00	< 0.250	
Molybdenum	7439-98-7	< 5.00	< 0.140	
Nickel	7440-02-0	< 2.00	< 0.350	
Potassium	7440-09-7	< 1000	< 37.0	
Selenium	7782-49-2	< 2.00	< 0.380	
Silver	7440-22-4	< 2.00	< 0.310	
Sodium	7440-23-5	< 1000	< 110	
Uranium	7440-61-1	< 10.0	< 0.330	
Vanadium	7440-62-2	< 5.00	< 0.180	
Zinc	7440-66-6	< 25.0	< 2.56	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755209	
Collection Date:	11/11/2014	Analyst:	664	
Analysis Date:	11/19/2014 9:15:00 PM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-73, -74, -75, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, -94			

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Aluminum	7429-90-5	< 100	10.7	
Arsenic	7440-38-2	< 2.00	< 0.250	
Barium	7440-39-3	< 5.00	0.778	
Boron	7440-42-8	< 20.0	< 1.5	
Cadmium	7440-43-9	< 1.00	< 0.160	
Calcium	7440-70-2	< 1000	62.5	
Chromium	7440-47-3	< 1.00	0.582	B
Cobalt	7440-48-4	< 2.00	< 0.260	
Copper	7440-50-8	< 5.00	0.666	
Iron	7439-89-6	< 100	< 15.0	
Lead	7439-92-1	< 2.00	1.31	B
Manganese	7439-96-5	< 5.00	< 0.250	
Molybdenum	7439-98-7	< 5.00	< 0.140	
Nickel	7440-02-0	< 2.00	0.538	
Potassium	7440-09-7	< 1000	< 37.0	
Selenium	7782-49-2	< 2.00	< 0.380	
Silver	7440-22-4	< 2.00	< 0.310	
Sodium	7440-23-5	< 1000	< 110	
Uranium	7440-61-1	< 10.0	< 0.330	
Vanadium	7440-62-2	< 5.00	< 0.180	
Zinc	7440-66-6	< 25.0	< 2.56	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020	Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755211
Collection Date:	11/11/2014	Analyst:	664
Analysis Date:	11/20/2014 5:49:00 PM	Prep Date:	11/18/2014
Instrument ID:	ICPMS8		
Sample Numbers:	L733743-95, -96, -97, -98, -99, -160		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Aluminum	7429-90-5	< 100	4.19	
Arsenic	7440-38-2	< 2.00	< 0.250	
Barium	7440-39-3	< 5.00	< 0.360	
Boron	7440-42-8	< 20.0	< 1.5	
Cadmium	7440-43-9	< 1.00	< 0.160	
Calcium	7440-70-2	< 1000	< 46.0	
Chromium	7440-47-3	< 1.00	< 0.540	B
Cobalt	7440-48-4	< 2.00	< 0.260	
Copper	7440-50-8	< 5.00	< 0.520	
Iron	7439-89-6	< 100	< 15.0	
Lead	7439-92-1	< 2.00	< 0.240	
Manganese	7439-96-5	< 5.00	< 0.250	
Molybdenum	7439-98-7	< 5.00	< 0.140	
Nickel	7440-02-0	< 2.00	< 0.350	
Potassium	7440-09-7	< 1000	< 37.0	
Selenium	7782-49-2	< 2.00	< 0.380	
Silver	7440-22-4	< 2.00	< 0.310	
Sodium	7440-23-5	< 1000	< 110	
Uranium	7440-61-1	< 10.0	< 0.330	
Vanadium	7440-62-2	< 5.00	< 0.180	
Zinc	7440-66-6	< 25.0	< 2.56	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755434
Analysis Date:	11/20/2014 7:41:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/19/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Aluminum,Dissolved	7429-90-5	< 100	< 2.00	
Arsenic,Dissolved	7440-38-2	< 2.00	< 0.250	
Barium,Dissolved	7440-39-3	< 5.00	< 0.360	
Boron,Dissolved	7440-42-8	< 20.0	< 1.5	
Cadmium,Dissolved	7440-43-9	< 1.00	< 0.160	
Calcium,Dissolved	7440-70-2	< 1000	< 46.0	
Chromium,Dissolved	7440-47-3	< 1.00	0.615	B
Cobalt,Dissolved	7440-48-4	< 2.00	< 0.260	
Copper,Dissolved	7440-50-8	< 5.00	< 0.520	
Iron,Dissolved	7439-89-6	< 100	< 15.0	
Lead,Dissolved	7439-92-1	< 2.00	< 0.240	
Manganese,Dissolved	7439-96-5	< 5.00	< 0.250	
Molybdenum,Dissolved	7439-98-7	< 5.00	< 0.140	
Nickel,Dissolved	7440-02-0	< 2.00	< 0.350	
Potassium,Dissolved	7440-09-7	< 1000	< 37.0	
Selenium,Dissolved	7782-49-2	< 2.00	0.579	
Silver,Dissolved	7440-22-4	< 2.00	< 0.310	
Sodium,Dissolved	7440-23-5	< 1000	< 110	
Uranium,Dissolved	7440-61-1	< 10.0	< 0.330	
Vanadium,Dissolved	7440-62-2	< 5.00	< 0.180	
Zinc,Dissolved	7440-66-6	< 25.0	< 2.56	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756145
Analysis Date:	11/24/2014 6:51:00 PM	Analyst:	117
Instrument ID:	ICPMS8	Prep Date:	11/21/2014
Sample Numbers:	L733743-33, -35, -36, -37, -39, -43, -44, -45		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chromium	7440-47-3	< 1.00	< 0.540	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chromium	1	50	50.382	101	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chromium	1	50	51.022	102	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	RPD	Qual
Chromium	1	50	50.382	101	51.022	102	85 - 115	1	20		



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755200	
Collection Date:	11/11/2014	Analyst:	117	
Analysis Date:	11/18/2014 5:20:00 PM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, -29			

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	472.28	94	70 - 130	
Arsenic	1	50	48.889	98	85 - 115	
Barium	1	50	44.982	90	85 - 115	
Boron	1	50	52.927	106	70 - 130	
Cadmium	1	50	45.273	91	85 - 115	
Calcium	1	5000	4865.4	97	70 - 130	
Chromium	1	50	50.624	101	85 - 115	
Cobalt	1	50	51.685	103	85 - 115	
Copper	1	50	52.210	104	85 - 115	
Iron	1	500	509.96	102	85 - 115	
Lead	1	50	51.977	104	85 - 115	
Manganese	1	50	50.282	101	85 - 115	
Molybdenum	1	50	51.409	103	85 - 115	
Nickel	1	50	51.413	103	85 - 115	
Potassium	1	5000	4667.2	93	70 - 130	
Selenium	1	50	44.589	89	85 - 115	
Silver	1	50	47.694	95	85 - 115	
Sodium	1	5000	5022.2	100	70 - 130	
Uranium	1	50	50.716	101	70 - 130	
Vanadium	1	50	48.967	98	85 - 115	
Zinc	1	50	48.977	98	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755200
Analysis Date:	11/18/2014 5:20:00 PM	Analyst:	117
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, -29		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	508.47	102	70 - 130	
Arsenic	1	50	49.444	99	85 - 115	
Barium	1	50	47.486	95	85 - 115	
Boron	1	50	53.921	108	70 - 130	
Cadmium	1	50	47.791	96	85 - 115	
Calcium	1	5000	5032.1	101	70 - 130	
Chromium	1	50	52.432	105	85 - 115	
Cobalt	1	50	52.373	105	85 - 115	
Copper	1	50	52.320	105	85 - 115	
Iron	1	500	513.35	103	85 - 115	
Lead	1	50	52.909	106	85 - 115	
Manganese	1	50	51.072	102	85 - 115	
Molybdenum	1	50	51.418	103	85 - 115	
Nickel	1	50	53.159	106	85 - 115	
Potassium	1	5000	4842.4	97	70 - 130	
Selenium	1	50	45.938	92	85 - 115	
Silver	1	50	48.870	98	85 - 115	
Sodium	1	5000	5216.4	104	70 - 130	
Uranium	1	50	52.270	105	70 - 130	
Vanadium	1	50	50.193	100	85 - 115	
Zinc	1	50	51.057	102	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755200	
Collection Date:	11/11/2014	Analyst:	117	
Analysis Date:	11/18/2014 5:20:00 PM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, -29			

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
Aluminum	1	500	472.28	94	508.47	102	70 - 130		7	20
Arsenic	1	50	48.889	98	49.444	99	85 - 115		1	20
Barium	1	50	44.982	90	47.486	95	85 - 115		5	20
Boron	1	50	52.927	106	53.921	108	70 - 130		2	20
Cadmium	1	50	45.273	91	47.791	96	85 - 115		5	20
Calcium	1	5000	4865.4	97	5032.1	101	70 - 130		3	20
Chromium	1	50	50.624	101	52.432	105	85 - 115		4	20
Cobalt	1	50	51.685	103	52.373	105	85 - 115		1	20
Copper	1	50	52.210	104	52.320	105	85 - 115		0	20
Iron	1	500	509.96	102	513.35	103	85 - 115		1	20
Lead	1	50	51.977	104	52.909	106	85 - 115		2	20
Manganese	1	50	50.282	101	51.072	102	85 - 115		2	20
Molybdenum	1	50	51.409	103	51.418	103	85 - 115		0	20
Nickel	1	50	51.413	103	53.159	106	85 - 115		3	20
Potassium	1	5000	4667.2	93	4842.4	97	70 - 130		4	20
Selenium	1	50	44.589	89	45.938	92	85 - 115		3	20
Silver	1	50	47.694	95	48.870	98	85 - 115		2	20
Sodium	1	5000	5022.2	100	5216.4	104	70 - 130		4	20
Uranium	1	50	50.716	101	52.270	105	70 - 130		3	20
Vanadium	1	50	48.967	98	50.193	100	85 - 115		2	20
Zinc	1	50	48.977	98	51.057	102	85 - 115		4	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755201	
Collection Date:	11/11/2014	Analyst:	664	
Analysis Date:	11/20/2014 6:48:00 PM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49			

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	492.67	99	70 - 130	
Arsenic	1	50	49.398	99	85 - 115	
Barium	1	50	49.956	100	85 - 115	
Boron	1	50	46.804	94	70 - 130	
Cadmium	1	50	49.242	98	85 - 115	
Calcium	1	5000	5063.1	101	70 - 130	
Chromium	1	50	52.621	105	85 - 115	
Cobalt	1	50	50.939	102	85 - 115	
Copper	1	50	51.111	102	85 - 115	
Iron	1	500	499.19	100	85 - 115	
Lead	1	50	51.613	103	85 - 115	
Manganese	1	50	50.350	101	85 - 115	
Molybdenum	1	50	51.097	102	85 - 115	
Nickel	1	50	51.195	102	85 - 115	
Potassium	1	5000	4981.3	100	70 - 130	
Selenium	1	50	44.224	88	85 - 115	
Silver	1	50	49.636	99	85 - 115	
Sodium	1	5000	5399.3	108	70 - 130	
Uranium	1	50	51.042	102	70 - 130	
Vanadium	1	50	50.865	102	85 - 115	
Zinc	1	50	49.717	99	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755201
Analysis Date:	11/20/2014 6:48:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	532.59	107	70 - 130	
Arsenic	1	50	49.912	100	85 - 115	
Barium	1	50	50.853	102	85 - 115	
Boron	1	50	48.032	96	70 - 130	
Cadmium	1	50	50.399	101	85 - 115	
Calcium	1	5000	4976.7	100	70 - 130	
Chromium	1	50	53.721	107	85 - 115	
Cobalt	1	50	51.258	103	85 - 115	
Copper	1	50	52.238	104	85 - 115	
Iron	1	500	500.21	100	85 - 115	
Lead	1	50	52.446	105	85 - 115	
Manganese	1	50	50.743	101	85 - 115	
Molybdenum	1	50	51.664	103	85 - 115	
Nickel	1	50	52.036	104	85 - 115	
Potassium	1	5000	5121.0	102	70 - 130	
Selenium	1	50	51.183	102	85 - 115	
Silver	1	50	50.742	101	85 - 115	
Sodium	1	5000	5361.9	107	70 - 130	
Uranium	1	50	51.840	104	70 - 130	
Vanadium	1	50	52.174	104	85 - 115	
Zinc	1	50	49.084	98	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755201
Analysis Date:	11/20/2014 6:48:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
Aluminum	1	500	492.67	99	532.59	107	70 - 130		8	20
Arsenic	1	50	49.398	99	49.912	100	85 - 115		1	20
Barium	1	50	49.956	100	50.853	102	85 - 115		2	20
Boron	1	50	46.804	94	48.032	96	70 - 130		3	20
Cadmium	1	50	49.242	98	50.399	101	85 - 115		2	20
Calcium	1	5000	5063.1	101	4976.7	100	70 - 130		2	20
Chromium	1	50	52.621	105	53.721	107	85 - 115		2	20
Cobalt	1	50	50.939	102	51.258	103	85 - 115		1	20
Copper	1	50	51.111	102	52.238	104	85 - 115		2	20
Iron	1	500	499.19	100	500.21	100	85 - 115		0	20
Lead	1	50	51.613	103	52.446	105	85 - 115		2	20
Manganese	1	50	50.350	101	50.743	101	85 - 115		1	20
Molybdenum	1	50	51.097	102	51.664	103	85 - 115		1	20
Nickel	1	50	51.195	102	52.036	104	85 - 115		2	20
Potassium	1	5000	4981.3	100	5121.0	102	70 - 130		3	20
Selenium	1	50	44.224	88	51.183	102	85 - 115		15	20
Silver	1	50	49.636	99	50.742	101	85 - 115		2	20
Sodium	1	5000	5399.3	108	5361.9	107	70 - 130		1	20
Uranium	1	50	51.042	102	51.840	104	70 - 130		2	20
Vanadium	1	50	50.865	102	52.174	104	85 - 115		3	20
Zinc	1	50	49.717	99	49.084	98	85 - 115		1	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755204
Analysis Date:	11/25/2014 1:15:00 AM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-100, -101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	509.26	102	70 - 130	
Arsenic	1	50	48.045	96	85 - 115	
Barium	1	50	49.350	99	85 - 115	
Boron	1	50	48.565	97	70 - 130	
Cadmium	1	50	48.641	97	85 - 115	
Calcium	1	5000	4889.8	98	70 - 130	
Chromium	1	50	49.169	98	85 - 115	
Cobalt	1	50	48.854	98	85 - 115	
Copper	1	50	48.776	98	85 - 115	
Iron	1	500	486.36	97	85 - 115	
Lead	1	50	49.624	99	85 - 115	
Manganese	1	50	49.966	100	85 - 115	
Molybdenum	1	50	48.475	97	85 - 115	
Nickel	1	50	48.317	97	85 - 115	
Potassium	1	5000	4932.9	99	70 - 130	
Selenium	1	50	47.805	96	85 - 115	
Silver	1	50	52.504	105	85 - 115	
Sodium	1	5000	4939.6	99	70 - 130	
Uranium	1	50	48.274	97	70 - 130	
Vanadium	1	50	48.925	98	85 - 115	
Zinc	1	50	46.214	92	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755204	
Collection Date:	11/11/2014	Analyst:	664	
Analysis Date:	11/25/2014 1:15:00 AM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-100, -101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118			

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	517.26	103	70 - 130	
Arsenic	1	50	48.299	97	85 - 115	
Barium	1	50	51.282	103	85 - 115	
Boron	1	50	49.713	99	70 - 130	
Cadmium	1	50	49.093	98	85 - 115	
Calcium	1	5000	5050.3	101	70 - 130	
Chromium	1	50	50.076	100	85 - 115	
Cobalt	1	50	49.316	99	85 - 115	
Copper	1	50	49.004	98	85 - 115	
Iron	1	500	492.55	99	85 - 115	
Lead	1	50	49.097	98	85 - 115	
Manganese	1	50	50.166	100	85 - 115	
Molybdenum	1	50	47.997	96	85 - 115	
Nickel	1	50	48.666	97	85 - 115	
Potassium	1	5000	5007.1	100	70 - 130	
Selenium	1	50	48.254	97	85 - 115	
Silver	1	50	53.311	107	85 - 115	
Sodium	1	5000	4996.5	100	70 - 130	
Uranium	1	50	47.505	95	70 - 130	
Vanadium	1	50	49.520	99	85 - 115	
Zinc	1	50	47.364	95	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020	Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755204
Collection Date:	11/11/2014	Analyst:	664
Analysis Date:	11/25/2014 1:15:00 AM	Prep Date:	11/18/2014
Instrument ID:	ICPMS8		
Sample Numbers:	L733743-100, -101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
Aluminum	1	500	509.26	102	517.26	103	70 - 130		2	20
Arsenic	1	50	48.045	96	48.299	97	85 - 115		1	20
Barium	1	50	49.350	99	51.282	103	85 - 115		4	20
Boron	1	50	48.565	97	49.713	99	70 - 130		2	20
Cadmium	1	50	48.641	97	49.093	98	85 - 115		1	20
Calcium	1	5000	4889.8	98	5050.3	101	70 - 130		3	20
Chromium	1	50	49.169	98	50.076	100	85 - 115		2	20
Cobalt	1	50	48.854	98	49.316	99	85 - 115		1	20
Copper	1	50	48.776	98	49.004	98	85 - 115		0	20
Iron	1	500	486.36	97	492.55	99	85 - 115		1	20
Lead	1	50	49.624	99	49.097	98	85 - 115		1	20
Manganese	1	50	49.966	100	50.166	100	85 - 115		0	20
Molybdenum	1	50	48.475	97	47.997	96	85 - 115		1	20
Nickel	1	50	48.317	97	48.666	97	85 - 115		1	20
Potassium	1	5000	4932.9	99	5007.1	100	70 - 130		1	20
Selenium	1	50	47.805	96	48.254	97	85 - 115		1	20
Silver	1	50	52.504	105	53.311	107	85 - 115		2	20
Sodium	1	5000	4939.6	99	4996.5	100	70 - 130		1	20
Uranium	1	50	48.274	97	47.505	95	70 - 130		2	20
Vanadium	1	50	48.925	98	49.520	99	85 - 115		1	20
Zinc	1	50	46.214	92	47.364	95	85 - 115		2	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755205
Analysis Date:	12/1/2014 4:05:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	522.25	104	70 - 130	
Arsenic	1	50	50.527	101	85 - 115	
Barium	1	50	52.069	104	85 - 115	
Boron	1	50	50.371	101	70 - 130	
Cadmium	1	50	49.916	100	85 - 115	
Calcium	1	5000	5320.4	106	70 - 130	
Chromium	1	50	54.405	109	85 - 115	
Cobalt	1	50	53.532	107	85 - 115	
Copper	1	50	53.337	107	85 - 115	
Iron	1	500	528.83	106	85 - 115	
Lead	1	50	53.082	106	85 - 115	
Manganese	1	50	53.902	108	85 - 115	
Molybdenum	1	50	52.928	106	85 - 115	
Nickel	1	50	52.895	106	85 - 115	
Potassium	1	5000	5101.1	102	70 - 130	
Selenium	1	50	48.564	97	85 - 115	
Silver	1	50	49.387	99	85 - 115	
Sodium	1	5000	5176.3	104	70 - 130	
Uranium	1	50	52.052	104	70 - 130	
Vanadium	1	50	52.271	105	85 - 115	
Zinc	1	50	51.968	104	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755205
Analysis Date:	12/1/2014 4:05:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	500.31	100	70 - 130	
Arsenic	1	50	50.182	100	85 - 115	
Barium	1	50	49.796	100	85 - 115	
Boron	1	50	50.168	100	70 - 130	
Cadmium	1	50	48.645	97	85 - 115	
Calcium	1	5000	5105.0	102	70 - 130	
Chromium	1	50	52.246	104	85 - 115	
Cobalt	1	50	51.938	104	85 - 115	
Copper	1	50	52.101	104	85 - 115	
Iron	1	500	513.24	103	85 - 115	
Lead	1	50	51.479	103	85 - 115	
Manganese	1	50	51.946	104	85 - 115	
Molybdenum	1	50	51.604	103	85 - 115	
Nickel	1	50	51.528	103	85 - 115	
Potassium	1	5000	4919.2	98	70 - 130	
Selenium	1	50	47.094	94	85 - 115	
Silver	1	50	48.096	96	85 - 115	
Sodium	1	5000	5047.1	101	70 - 130	
Uranium	1	50	50.238	100	70 - 130	
Vanadium	1	50	50.875	102	85 - 115	
Zinc	1	50	51.085	102	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755205
Analysis Date:	12/1/2014 4:05:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
Aluminum	1	500	522.25	104	500.31	100	70 - 130		4	20
Arsenic	1	50	50.527	101	50.182	100	85 - 115		1	20
Barium	1	50	52.069	104	49.796	100	85 - 115		4	20
Boron	1	50	50.371	101	50.168	100	70 - 130		0	20
Cadmium	1	50	49.916	100	48.645	97	85 - 115		3	20
Calcium	1	5000	5320.4	106	5105.0	102	70 - 130		4	20
Chromium	1	50	54.405	109	52.246	104	85 - 115		4	20
Cobalt	1	50	53.532	107	51.938	104	85 - 115		3	20
Copper	1	50	53.337	107	52.101	104	85 - 115		2	20
Iron	1	500	528.83	106	513.24	103	85 - 115		3	20
Lead	1	50	53.082	106	51.479	103	85 - 115		3	20
Manganese	1	50	53.902	108	51.946	104	85 - 115		4	20
Molybdenum	1	50	52.928	106	51.604	103	85 - 115		3	20
Nickel	1	50	52.895	106	51.528	103	85 - 115		3	20
Potassium	1	5000	5101.1	102	4919.2	98	70 - 130		4	20
Selenium	1	50	48.564	97	47.094	94	85 - 115		3	20
Silver	1	50	49.387	99	48.096	96	85 - 115		3	20
Sodium	1	5000	5176.3	104	5047.1	101	70 - 130		3	20
Uranium	1	50	52.052	104	50.238	100	70 - 130		4	20
Vanadium	1	50	52.271	105	50.875	102	85 - 115		3	20
Zinc	1	50	51.968	104	51.085	102	85 - 115		2	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020	Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755207
Collection Date:	11/11/2014	Analyst:	117
Analysis Date:	12/1/2014 6:00:00 PM	Prep Date:	11/18/2014
Instrument ID:	ICPMS8		
Sample Numbers:	L733743-140, -141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	531.46	106	70 - 130	
Arsenic	1	50	49.720	99	85 - 115	
Barium	1	50	51.573	103	85 - 115	
Boron	1	50	53.294	107	70 - 130	
Cadmium	1	50	50.161	100	85 - 115	
Calcium	1	5000	5158.5	103	70 - 130	
Chromium	1	50	52.346	105	85 - 115	
Cobalt	1	50	51.891	104	85 - 115	
Copper	1	50	51.635	103	85 - 115	
Iron	1	500	511.66	102	85 - 115	
Lead	1	50	51.794	104	85 - 115	
Manganese	1	50	52.054	104	85 - 115	
Molybdenum	1	50	51.079	102	85 - 115	
Nickel	1	50	51.768	104	85 - 115	
Potassium	1	5000	5109.0	102	70 - 130	
Selenium	1	50	49.580	99	85 - 115	
Silver	1	50	48.574	97	85 - 115	
Sodium	1	5000	5111.9	102	70 - 130	
Uranium	1	50	50.880	102	70 - 130	
Vanadium	1	50	51.445	103	85 - 115	
Zinc	1	50	52.604	105	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755207
Analysis Date:	12/1/2014 6:00:00 PM	Analyst:	117
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-140, -141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	514.76	103	70 - 130	
Arsenic	1	50	49.795	100	85 - 115	
Barium	1	50	49.983	100	85 - 115	
Boron	1	50	53.771	108	70 - 130	
Cadmium	1	50	48.851	98	85 - 115	
Calcium	1	5000	4908.7	98	70 - 130	
Chromium	1	50	51.847	104	85 - 115	
Cobalt	1	50	51.254	103	85 - 115	
Copper	1	50	51.054	102	85 - 115	
Iron	1	500	526.80	105	85 - 115	
Lead	1	50	51.262	103	85 - 115	
Manganese	1	50	51.238	102	85 - 115	
Molybdenum	1	50	51.282	103	85 - 115	
Nickel	1	50	50.805	102	85 - 115	
Potassium	1	5000	5029.1	101	70 - 130	
Selenium	1	50	46.277	93	85 - 115	
Silver	1	50	48.640	97	85 - 115	
Sodium	1	5000	5019.6	100	70 - 130	
Uranium	1	50	50.301	101	70 - 130	
Vanadium	1	50	50.146	100	85 - 115	
Zinc	1	50	50.020	100	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755207	
Collection Date:	11/11/2014	Analyst:	117	
Analysis Date:	12/1/2014 6:00:00 PM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-140, -141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158			

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
Aluminum	1	500	531.46	106	514.76	103	70 - 130		3	20
Arsenic	1	50	49.720	99	49.795	100	85 - 115		0	20
Barium	1	50	51.573	103	49.983	100	85 - 115		3	20
Boron	1	50	53.294	107	53.771	108	70 - 130		1	20
Cadmium	1	50	50.161	100	48.851	98	85 - 115		3	20
Calcium	1	5000	5158.5	103	4908.7	98	70 - 130		5	20
Chromium	1	50	52.346	105	51.847	104	85 - 115		1	20
Cobalt	1	50	51.891	104	51.254	103	85 - 115		1	20
Copper	1	50	51.635	103	51.054	102	85 - 115		1	20
Iron	1	500	511.66	102	526.80	105	85 - 115		3	20
Lead	1	50	51.794	104	51.262	103	85 - 115		1	20
Manganese	1	50	52.054	104	51.238	102	85 - 115		2	20
Molybdenum	1	50	51.079	102	51.282	103	85 - 115		0	20
Nickel	1	50	51.768	104	50.805	102	85 - 115		2	20
Potassium	1	5000	5109.0	102	5029.1	101	70 - 130		2	20
Selenium	1	50	49.580	99	46.277	93	85 - 115		7	20
Silver	1	50	48.574	97	48.640	97	85 - 115		0	20
Sodium	1	5000	5111.9	102	5019.6	100	70 - 130		2	20
Uranium	1	50	50.880	102	50.301	101	70 - 130		1	20
Vanadium	1	50	51.445	103	50.146	100	85 - 115		3	20
Zinc	1	50	52.604	105	50.020	100	85 - 115		5	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755208
Analysis Date:	11/18/2014 4:01:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-50, -51, -52, -53, -54, -55, -56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, -72		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	500.56	100	70 - 130	
Arsenic	1	50	49.706	99	85 - 115	
Barium	1	50	48.167	96	85 - 115	
Boron	1	50	51.202	102	70 - 130	
Cadmium	1	50	48.140	96	85 - 115	
Calcium	1	5000	4966.7	99	70 - 130	
Chromium	1	50	51.037	102	85 - 115	
Cobalt	1	50	50.724	101	85 - 115	
Copper	1	50	50.304	101	85 - 115	
Iron	1	500	504.64	101	85 - 115	
Lead	1	50	50.254	101	85 - 115	
Manganese	1	50	50.464	101	85 - 115	
Molybdenum	1	50	50.621	101	85 - 115	
Nickel	1	50	50.771	102	85 - 115	
Potassium	1	5000	4799.5	96	70 - 130	
Selenium	1	50	46.435	93	85 - 115	
Silver	1	50	48.608	97	85 - 115	
Sodium	1	5000	4973.9	99	70 - 130	
Uranium	1	50	49.404	99	70 - 130	
Vanadium	1	50	50.354	101	85 - 115	
Zinc	1	50	48.614	97	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755208
Analysis Date:	11/18/2014 4:01:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-50, -51, -52, -53, -54, -55, -56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, -72		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	489.12	98	70 - 130	
Arsenic	1	50	50.605	101	85 - 115	
Barium	1	50	47.870	96	85 - 115	
Boron	1	50	50.112	100	70 - 130	
Cadmium	1	50	47.957	96	85 - 115	
Calcium	1	5000	4790.7	96	70 - 130	
Chromium	1	50	50.524	101	85 - 115	
Cobalt	1	50	50.940	102	85 - 115	
Copper	1	50	51.998	104	85 - 115	
Iron	1	500	514.52	103	85 - 115	
Lead	1	50	51.157	102	85 - 115	
Manganese	1	50	51.679	103	85 - 115	
Molybdenum	1	50	51.104	102	85 - 115	
Nickel	1	50	52.497	105	85 - 115	
Potassium	1	5000	4804.4	96	70 - 130	
Selenium	1	50	43.922	88	85 - 115	
Silver	1	50	48.563	97	85 - 115	
Sodium	1	5000	4957.9	99	70 - 130	
Uranium	1	50	50.394	101	70 - 130	
Vanadium	1	50	48.862	98	85 - 115	
Zinc	1	50	50.419	101	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755208
Analysis Date:	11/18/2014 4:01:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-50, -51, -52, -53, -54, -55, -56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, -72		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
Aluminum	1	500	500.56	100	489.12	98	70 - 130		2	20
Arsenic	1	50	49.706	99	50.605	101	85 - 115		2	20
Barium	1	50	48.167	96	47.870	96	85 - 115		1	20
Boron	1	50	51.202	102	50.112	100	70 - 130		2	20
Cadmium	1	50	48.140	96	47.957	96	85 - 115		0	20
Calcium	1	5000	4966.7	99	4790.7	96	70 - 130		4	20
Chromium	1	50	51.037	102	50.524	101	85 - 115		1	20
Cobalt	1	50	50.724	101	50.940	102	85 - 115		0	20
Copper	1	50	50.304	101	51.998	104	85 - 115		3	20
Iron	1	500	504.64	101	514.52	103	85 - 115		2	20
Lead	1	50	50.254	101	51.157	102	85 - 115		2	20
Manganese	1	50	50.464	101	51.679	103	85 - 115		2	20
Molybdenum	1	50	50.621	101	51.104	102	85 - 115		1	20
Nickel	1	50	50.771	102	52.497	105	85 - 115		3	20
Potassium	1	5000	4799.5	96	4804.4	96	70 - 130		0	20
Selenium	1	50	46.435	93	43.922	88	85 - 115		6	20
Silver	1	50	48.608	97	48.563	97	85 - 115		0	20
Sodium	1	5000	4973.9	99	4957.9	99	70 - 130		0	20
Uranium	1	50	49.404	99	50.394	101	70 - 130		2	20
Vanadium	1	50	50.354	101	48.862	98	85 - 115		3	20
Zinc	1	50	48.614	97	50.419	101	85 - 115		4	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755209	
Collection Date:	11/11/2014	Analyst:	664	
Analysis Date:	11/19/2014 9:15:00 PM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-73, -74, -75, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, -94			

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	534.79	107	70 - 130	
Arsenic	1	50	47.388	95	85 - 115	
Barium	1	50	49.559	99	85 - 115	
Boron	1	50	40.440	81	70 - 130	
Cadmium	1	50	48.717	97	85 - 115	
Calcium	1	5000	5034.8	101	70 - 130	
Chromium	1	50	50.343	101	85 - 115	
Cobalt	1	50	48.380	97	85 - 115	
Copper	1	50	47.963	96	85 - 115	
Iron	1	500	488.12	98	85 - 115	
Lead	1	50	47.292	95	85 - 115	
Manganese	1	50	50.609	101	85 - 115	
Molybdenum	1	50	47.474	95	85 - 115	
Nickel	1	50	49.791	100	85 - 115	
Potassium	1	5000	4980.6	100	70 - 130	
Selenium	1	50	47.628	95	85 - 115	
Silver	1	50	51.256	103	85 - 115	
Sodium	1	5000	4995.9	100	70 - 130	
Uranium	1	50	45.941	92	70 - 130	
Vanadium	1	50	49.169	98	85 - 115	
Zinc	1	50	47.769	96	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755209
Analysis Date:	11/19/2014 9:15:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-73, -74, -75, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, -94		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	523.89	105	70 - 130	
Arsenic	1	50	46.490	93	85 - 115	
Barium	1	50	51.481	103	85 - 115	
Boron	1	50	42.881	86	70 - 130	
Cadmium	1	50	47.506	95	85 - 115	
Calcium	1	5000	4773.6	95	70 - 130	
Chromium	1	50	48.917	98	85 - 115	
Cobalt	1	50	46.855	94	85 - 115	
Copper	1	50	46.937	94	85 - 115	
Iron	1	500	480.33	96	85 - 115	
Lead	1	50	46.780	94	85 - 115	
Manganese	1	50	48.618	97	85 - 115	
Molybdenum	1	50	46.001	92	85 - 115	
Nickel	1	50	47.302	95	85 - 115	
Potassium	1	5000	4830.3	97	70 - 130	
Selenium	1	50	50.047	100	85 - 115	
Silver	1	50	50.612	101	85 - 115	
Sodium	1	5000	4826.6	97	70 - 130	
Uranium	1	50	44.838	90	70 - 130	
Vanadium	1	50	47.661	95	85 - 115	
Zinc	1	50	46.786	94	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755209
Analysis Date:	11/19/2014 9:15:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-73, -74, -75, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, -94		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
Aluminum	1	500	534.79	107	523.89	105	70 - 130		2	20
Arsenic	1	50	47.388	95	46.490	93	85 - 115		2	20
Barium	1	50	49.559	99	51.481	103	85 - 115		4	20
Boron	1	50	40.440	81	42.881	86	70 - 130		6	20
Cadmium	1	50	48.717	97	47.506	95	85 - 115		3	20
Calcium	1	5000	5034.8	101	4773.6	95	70 - 130		5	20
Chromium	1	50	50.343	101	48.917	98	85 - 115		3	20
Cobalt	1	50	48.380	97	46.855	94	85 - 115		3	20
Copper	1	50	47.963	96	46.937	94	85 - 115		2	20
Iron	1	500	488.12	98	480.33	96	85 - 115		2	20
Lead	1	50	47.292	95	46.780	94	85 - 115		1	20
Manganese	1	50	50.609	101	48.618	97	85 - 115		4	20
Molybdenum	1	50	47.474	95	46.001	92	85 - 115		3	20
Nickel	1	50	49.791	100	47.302	95	85 - 115		5	20
Potassium	1	5000	4980.6	100	4830.3	97	70 - 130		3	20
Selenium	1	50	47.628	95	50.047	100	85 - 115		5	20
Silver	1	50	51.256	103	50.612	101	85 - 115		1	20
Sodium	1	5000	4995.9	100	4826.6	97	70 - 130		3	20
Uranium	1	50	45.941	92	44.838	90	70 - 130		2	20
Vanadium	1	50	49.169	98	47.661	95	85 - 115		3	20
Zinc	1	50	47.769	96	46.786	94	85 - 115		2	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755211	
Collection Date:	11/11/2014	Analyst:	664	
Analysis Date:	11/20/2014 5:49:00 PM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-95, -96, -97, -98, -99, -160			

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	528.12	106	70 - 130	
Arsenic	1	50	48.527	97	85 - 115	
Barium	1	50	50.406	101	85 - 115	
Boron	1	50	49.524	99	70 - 130	
Cadmium	1	50	50.463	101	85 - 115	
Calcium	1	5000	5022.7	100	70 - 130	
Chromium	1	50	51.403	103	85 - 115	
Cobalt	1	50	49.721	99	85 - 115	
Copper	1	50	49.932	100	85 - 115	
Iron	1	500	491.31	98	85 - 115	
Lead	1	50	50.968	102	85 - 115	
Manganese	1	50	51.683	103	85 - 115	
Molybdenum	1	50	49.408	99	85 - 115	
Nickel	1	50	50.191	100	85 - 115	
Potassium	1	5000	5071.5	101	70 - 130	
Selenium	1	50	47.191	94	85 - 115	
Silver	1	50	50.159	100	85 - 115	
Sodium	1	5000	4994.9	100	70 - 130	
Uranium	1	50	49.977	100	70 - 130	
Vanadium	1	50	51.021	102	85 - 115	
Zinc	1	50	48.766	98	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755211	
Collection Date:	11/11/2014	Analyst:	664	
Analysis Date:	11/20/2014 5:49:00 PM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-95, -96, -97, -98, -99, -160			

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	543.92	109	70 - 130	
Arsenic	1	50	50.834	102	85 - 115	
Barium	1	50	53.082	106	85 - 115	
Boron	1	50	52.064	104	70 - 130	
Cadmium	1	50	51.718	103	85 - 115	
Calcium	1	5000	5068.9	101	70 - 130	
Chromium	1	50	52.395	105	85 - 115	
Cobalt	1	50	51.760	104	85 - 115	
Copper	1	50	51.809	104	85 - 115	
Iron	1	500	511.25	102	85 - 115	
Lead	1	50	52.596	105	85 - 115	
Manganese	1	50	52.423	105	85 - 115	
Molybdenum	1	50	51.877	104	85 - 115	
Nickel	1	50	51.743	103	85 - 115	
Potassium	1	5000	5244.6	105	70 - 130	
Selenium	1	50	47.430	95	85 - 115	
Silver	1	50	51.510	103	85 - 115	
Sodium	1	5000	5139.8	103	70 - 130	
Uranium	1	50	52.169	104	70 - 130	
Vanadium	1	50	52.551	105	85 - 115	
Zinc	1	50	50.518	101	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755211	
Collection Date:	11/11/2014	Analyst:	664	
Analysis Date:	11/20/2014 5:49:00 PM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-95, -96, -97, -98, -99, -160			

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
Aluminum	1	500	528.12	106	543.92	109	70 - 130		3	20
Arsenic	1	50	48.527	97	50.834	102	85 - 115		5	20
Barium	1	50	50.406	101	53.082	106	85 - 115		5	20
Boron	1	50	49.524	99	52.064	104	70 - 130		5	20
Cadmium	1	50	50.463	101	51.718	103	85 - 115		2	20
Calcium	1	5000	5022.7	100	5068.9	101	70 - 130		1	20
Chromium	1	50	51.403	103	52.395	105	85 - 115		2	20
Cobalt	1	50	49.721	99	51.760	104	85 - 115		4	20
Copper	1	50	49.932	100	51.809	104	85 - 115		4	20
Iron	1	500	491.31	98	511.25	102	85 - 115		4	20
Lead	1	50	50.968	102	52.596	105	85 - 115		3	20
Manganese	1	50	51.683	103	52.423	105	85 - 115		1	20
Molybdenum	1	50	49.408	99	51.877	104	85 - 115		5	20
Nickel	1	50	50.191	100	51.743	103	85 - 115		3	20
Potassium	1	5000	5071.5	101	5244.6	105	70 - 130		3	20
Selenium	1	50	47.191	94	47.430	95	85 - 115		1	20
Silver	1	50	50.159	100	51.510	103	85 - 115		3	20
Sodium	1	5000	4994.9	100	5139.8	103	70 - 130		3	20
Uranium	1	50	49.977	100	52.169	104	70 - 130		4	20
Vanadium	1	50	51.021	102	52.551	105	85 - 115		3	20
Zinc	1	50	48.766	98	50.518	101	85 - 115		4	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755434
Analysis Date:	11/20/2014 7:41:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/19/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum,Dissolved	1	500	506.04	101	70 - 130	
Arsenic,Dissolved	1	50	48.578	97	85 - 115	
Barium,Dissolved	1	50	47.748	95	85 - 115	
Boron,Dissolved	1	50	47.146	94	70 - 130	
Cadmium,Dissolved	1	50	47.935	96	85 - 115	
Calcium,Dissolved	1	5000	5173.0	103	70 - 130	
Chromium,Dissolved	1	50	52.593	105	85 - 115	
Cobalt,Dissolved	1	50	50.768	102	85 - 115	
Copper,Dissolved	1	50	54.742	109	85 - 115	
Iron,Dissolved	1	500	493.36	99	85 - 115	
Lead,Dissolved	1	50	52.756	106	85 - 115	
Manganese,Dissolved	1	50	52.204	104	85 - 115	
Molybdenum,Dissolved	1	50	49.097	98	85 - 115	
Nickel,Dissolved	1	50	50.746	101	85 - 115	
Potassium,Dissolved	1	5000	5182.7	104	70 - 130	
Selenium,Dissolved	1	50	45.036	90	85 - 115	
Silver,Dissolved	1	50	49.614	99	85 - 115	
Sodium,Dissolved	1	5000	5252.5	105	70 - 130	
Uranium,Dissolved	1	50	48.952	98	70 - 130	
Vanadium,Dissolved	1	50	50.843	102	85 - 115	
Zinc,Dissolved	1	50	50.877	102	85 - 115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755434
Analysis Date:	11/20/2014 7:41:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/19/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum,Dissolved	1	500	504.86	101	70 - 130	
Arsenic,Dissolved	1	50	48.530	97	85 - 115	
Barium,Dissolved	1	50	47.359	95	85 - 115	
Boron,Dissolved	1	50	49.702	99	70 - 130	
Cadmium,Dissolved	1	50	48.077	96	85 - 115	
Calcium,Dissolved	1	5000	5108.7	102	70 - 130	
Chromium,Dissolved	1	50	51.516	103	85 - 115	
Cobalt,Dissolved	1	50	50.404	101	85 - 115	
Copper,Dissolved	1	50	50.817	102	85 - 115	
Iron,Dissolved	1	500	494.59	99	85 - 115	
Lead,Dissolved	1	50	52.996	106	85 - 115	
Manganese,Dissolved	1	50	50.280	101	85 - 115	
Molybdenum,Dissolved	1	50	48.461	97	85 - 115	
Nickel,Dissolved	1	50	49.938	100	85 - 115	
Potassium,Dissolved	1	5000	5043.6	101	70 - 130	
Selenium,Dissolved	1	50	47.003	94	85 - 115	
Silver,Dissolved	1	50	49.631	99	85 - 115	
Sodium,Dissolved	1	5000	5386.8	108	70 - 130	
Uranium,Dissolved	1	50	49.258	99	70 - 130	
Vanadium,Dissolved	1	50	50.032	100	85 - 115	
Zinc,Dissolved	1	50	50.054	100	85 - 115	



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020	Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755434
Collection Date:	11/11/2014	Analyst:	664
Analysis Date:	11/20/2014 7:41:00 PM	Prep Date:	11/19/2014
Instrument ID:	ICPMS8		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
Aluminum,Dissolved	1	500	506.04	101	504.86	101	70 - 130		0	20
Arsenic,Dissolved	1	50	48.578	97	48.530	97	85 - 115		0	20
Barium,Dissolved	1	50	47.748	95	47.359	95	85 - 115		1	20
Boron,Dissolved	1	50	47.146	94	49.702	99	70 - 130		5	20
Cadmium,Dissolved	1	50	47.935	96	48.077	96	85 - 115		0	20
Calcium,Dissolved	1	5000	5173.0	103	5108.7	102	70 - 130		1	20
Chromium,Dissolved	1	50	52.593	105	51.516	103	85 - 115		2	20
Cobalt,Dissolved	1	50	50.768	102	50.404	101	85 - 115		1	20
Copper,Dissolved	1	50	54.742	109	50.817	102	85 - 115		7	20
Iron,Dissolved	1	500	493.36	99	494.59	99	85 - 115		0	20
Lead,Dissolved	1	50	52.756	106	52.996	106	85 - 115		0	20
Manganese,Dissolved	1	50	52.204	104	50.280	101	85 - 115		4	20
Molybdenum,Dissolved	1	50	49.097	98	48.461	97	85 - 115		1	20
Nickel,Dissolved	1	50	50.746	101	49.938	100	85 - 115		2	20
Potassium,Dissolved	1	5000	5182.7	104	5043.6	101	70 - 130		3	20
Selenium,Dissolved	1	50	45.036	90	47.003	94	85 - 115		4	20
Silver,Dissolved	1	50	49.614	99	49.631	99	85 - 115		0	20
Sodium,Dissolved	1	5000	5252.5	105	5386.8	108	70 - 130		3	20
Uranium,Dissolved	1	50	48.952	98	49.258	99	70 - 130		1	20
Vanadium,Dissolved	1	50	50.843	102	50.032	100	85 - 115		2	20
Zinc,Dissolved	1	50	50.877	102	50.054	100	85 - 115		2	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755200	
Collection Date:	11/11/2014	Analyst:	117	
Analysis Date:	11/18/2014 5:20:00 PM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, -29			

Serial Dilution

L733743-02

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum	5	16.897	14.769	13	10	
Arsenic	5	0.8854	1.0512	19	10	
Barium	5	12.953	13.400	3	10	
Boron	5	135.10	129.16	4	10	
Cadmium	5	<0.16	<0.8		10	
Calcium	25	388611	439828	13	10	O1
Chromium	5	1.6579	2.1191	28	10	
Cobalt	5	<0.26	<1.3		10	
Copper	5	<0.52	<2.6		10	
Iron	5	<15	<75		10	
Lead	5	0.8742	1.0445	19	10	
Manganese	5	1.9670	0.8755	55	10	
Molybdenum	5	9.5703	11.631	22	10	
Nickel	25	<1.75	<8.75		10	
Potassium	5	2075.8	2392.4	15	10	
Selenium	5	7.4577	4.1087	45	10	
Silver	5	<0.31	<1.55		10	
Sodium	5	78780	94705	20	10	
Uranium	5	3.2344	3.6728	14	10	
Vanadium	5	6.6599	7.4903	12	10	
Zinc	5	<2.56	<12.8		10	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755200
Analysis Date:	11/18/2014 5:20:00 PM	Analyst:	117
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, -29		

Matrix Spike / Matrix Spike Duplicate

L733743-02

Analyte	Dil	Spike		MS	% Rec	MSD	% Rec	Control Limits	% Rec		Control Limits	RPD Qual
		Value	Sample						Qual	RPD		
Aluminum	1	500	16.897	546.33	106	530.61	103	70 - 130			3	20
Arsenic	1	50	0.8854	49.935	98	50.535	99	75 - 125			1	20
Barium	1	50	12.953	64.362	103	65.150	104	75 - 125			1	20
Boron	1	50	135.10	178.51	87	182.50	95	70 - 130			2	20
Cadmium	1	50	0.0284	48.487	97	48.727	97	75 - 125			0	20
Calcium	5	1000	388611	405596	340	412442	477	70 - 130	V		2	20
Chromium	1	50	1.6579	53.210	103	52.613	102	75 - 125			1	20
Cobalt	1	50	0.0464	50.333	101	49.777	99	75 - 125			1	20
Copper	1	50	0.3624	50.428	100	50.451	100	75 - 125			0	20
Iron	1	500	12.592	509.60	99	504.89	98	75 - 125			1	20
Lead	1	50	0.8742	50.689	100	50.724	100	75 - 125			0	20
Manganese	1	50	1.9670	52.022	100	50.954	98	75 - 125			2	20
Molybdenum	1	50	9.5703	61.249	103	60.753	102	75 - 125			1	20
Nickel	5	10	1.0310	55.606	109	55.687	109	75 - 125			0	20
Potassium	1	5000	2075.8	7100.6	100	6999.9	98	70 - 130			1	20
Selenium	1	50	7.4577	55.306	96	50.246	86	75 - 125			10	20
Silver	1	50	0.0042	50.890	102	52.168	104	75 - 125			2	20
Sodium	1	5000	78780	83626	97	83558	96	70 - 130			0	20
Uranium	1	50	3.2344	52.865	99	53.486	101	70 - 130			1	20
Vanadium	1	50	6.6599	58.324	103	58.321	103	75 - 125			0	20
Zinc	1	50	1.2602	48.521	95	48.637	95	75 - 125			0	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755201	
Collection Date:	11/11/2014	Analyst:	664	
Analysis Date:	11/20/2014 6:48:00 PM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49			

Serial Dilution

L733743-30

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum	5	141.01	162.93	16	10	
Arsenic	5	18.940	19.524	3	10	
Barium	5	21.187	21.620	2	10	
Boron	5	408.28	472.49	16	10	O1
Cadmium	5	<0.16	<0.8		10	
Calcium	100	751288	738860	2	10	
Chromium	5	0.9173	2.5120	174	10	
Cobalt	5	2.9784	3.3888	14	10	
Copper	5	1.0144	2.6431	161	10	
Iron	5	138.09	182.94	32	10	
Lead	5	0.9760	2.8173	189	10	
Manganese	5	2409.2	2518.3	5	10	
Molybdenum	5	25.236	26.214	4	10	
Nickel	5	29.744	47.392	59	10	
Potassium	5	4277.6	4719.4	10	10	
Selenium	5	1.5131	2.1556	42	10	
Silver	5	<0.31	<1.55		10	
Sodium	100	1220674	1202713	1	10	
Uranium	5	11.747	12.252	4	10	
Vanadium	5	17.998	17.673	2	10	
Zinc	5	1.4235	20.007	1305	10	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755201
Analysis Date:	11/20/2014 6:48:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49		

Matrix Spike / Matrix Spike Duplicate

L733743-30

Analyte	Dil	Spike		MS	% Rec	MSD	% Rec	Control Limits	% Rec		Control Limits	RPD Qual
		Value	Sample						Qual	RPD		
Aluminum	1	500	141.01	665.49	105	664.49	105	70 - 130			0	20
Arsenic	1	50	18.940	68.047	98	69.592	101	75 - 125			2	20
Barium	1	50	21.187	73.705	105	70.223	98	75 - 125			5	20
Boron	1	50	408.28	428.14	40	438.83	61	70 - 130	V		2	20
Cadmium	1	50	0.1036	49.090	98	48.992	98	75 - 125			0	20
Calcium	20	250	751288	740600	0	713708	0	70 - 130	V		4	20
Chromium	1	50	0.9173	50.407	99	50.986	100	75 - 125			1	20
Cobalt	1	50	2.9784	51.817	98	52.594	99	75 - 125			1	20
Copper	1	50	1.0144	48.597	95	48.727	95	75 - 125			0	20
Iron	1	500	138.09	635.42	99	642.89	101	75 - 125			1	20
Lead	1	50	0.9760	48.246	95	48.179	94	75 - 125			0	20
Manganese	1	50	2409.2	2435.0	52	2478.7	139	75 - 125	V		2	20
Molybdenum	1	50	25.236	74.535	99	75.211	100	75 - 125			1	20
Nickel	1	50	29.744	76.739	94	77.812	96	75 - 125			1	20
Potassium	1	5000	4277.6	9320.4	101	9265.9	100	70 - 130			1	20
Selenium	1	50	1.5131	51.554	100	53.174	103	75 - 125			3	20
Silver	1	50	0.0971	50.018	100	49.108	98	75 - 125			2	20
Sodium	20	250	1220674	1216246	0	1186635	0	70 - 130	V		2	20
Uranium	1	50	11.747	58.307	93	57.484	91	70 - 130			1	20
Vanadium	1	50	17.998	68.213	100	68.317	101	75 - 125			0	20
Zinc	1	50	1.4235	46.139	89	48.767	95	75 - 125			6	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755204	
Collection Date:	11/11/2014	Analyst:	664	
Analysis Date:	11/25/2014 1:15:00 AM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-100, -101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118			

Serial Dilution

L733743-100

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum	5	33.620	47.812	42	10	
Arsenic	5	9.0094	9.2847	3	10	
Barium	5	424.24	412.41	3	10	
Boron	5	540.46	585.74	8	10	
Cadmium	5	<0.16	<0.8		10	
Calcium	50	196950	196237	0	10	
Chromium	5	1.3268	2.9193	120	10	
Cobalt	5	<0.26	<1.3		10	
Copper	5	1.0413	5.5174	430	10	
Lead	5	1.7750	2.3197	31	10	
Manganese	5	374.76	391.38	4	10	
Nickel	5	5.8998	20.820	253	10	
Potassium	5	607.56	668.26	10	10	
Selenium	5	22.018	10.172	54	10	O1
Silver	5	<0.31	<1.55		10	
Sodium	50	586498	594166	1	10	
Uranium	5	<0.33	<1.65		10	
Vanadium	5	0.6200	0.8263	33	10	
Zinc	5	33.802	79.222	134	10	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020	Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755204
Collection Date:	11/11/2014	Analyst:	664
Analysis Date:	11/25/2014 1:15:00 AM	Prep Date:	11/18/2014
Instrument ID:	ICPMS8		
Sample Numbers:	L733743-100, -101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118		

Matrix Spike / Matrix Spike Duplicate

L733743-100

Analyte	Dil	Spike		MS	% Rec	MSD	% Rec	Control Limits	% Rec		Control Limits	RPD Qual
		Value	Sample						Qual	RPD		
Aluminum	1	500	33.620	540.29	101	561.92	106	70 - 130			4	20
Arsenic	1	50	9.0094	58.466	99	59.763	102	75 - 125			2	20
Barium	1	50	424.24	476.15	104	475.39	102	75 - 125			0	20
Boron	1	50	540.46	577.82	75	571.99	63	70 - 130	V		1	20
Cadmium	1	50	0.0286	50.782	102	50.697	101	75 - 125			0	20
Calcium	10	500	196950	205859	178	201131	84	70 - 130	V		2	20
Chromium	1	50	1.3268	50.484	98	50.375	98	75 - 125			0	20
Cobalt	1	50	0.0674	47.112	94	48.393	97	75 - 125			3	20
Copper	1	50	1.0413	46.301	91	48.108	94	75 - 125			4	20
Iron	1	500	21.063	488.08	93	508.00	97	75 - 125			4	20
Lead	1	50	1.7750	48.257	93	49.644	96	75 - 125			3	20
Manganese	1	50	374.76	415.43	81	426.10	103	75 - 125			3	20
Molybdenum	1	50	0.0249	46.664	93	49.021	98	75 - 125			5	20
Nickel	1	50	5.8998	50.111	88	50.718	90	75 - 125			1	20
Potassium	1	5000	607.56	5629.3	100	5605.8	100	70 - 130			0	20
Selenium	1	50	22.018	44.892	46	46.121	48	75 - 125	J6		3	20
Silver	1	50	0.0523	41.575	83	45.230	90	75 - 125			8	20
Sodium	10	500	586498	595942	189	584334	0	70 - 130	V		2	20
Uranium	1	50	0.0420	47.496	95	48.216	96	70 - 130			2	20
Vanadium	1	50	0.6200	50.951	101	51.417	102	75 - 125			1	20
Zinc	1	50	33.802	48.916	30	53.313	39	75 - 125	J6		9	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755205	
Collection Date:	11/11/2014	Analyst:	664	
Analysis Date:	12/1/2014 4:05:00 PM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138			

Serial Dilution

L733743-120

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum	5	153.95	201.37	31	10	
Arsenic	5	3.4030	3.4226	1	10	
Barium	5	15.136	14.404	5	10	
Boron	5	701.88	811.58	16	10	O1
Cadmium	5	<0.16	<0.8		10	
Calcium	50	694526	751632	8	10	
Chromium	5	0.8627	0.6665	23	10	
Cobalt	5	<0.26	<1.3		10	
Copper	5	1.2687	1.3842	9	10	
Iron	5	128.67	148.86	16	10	
Lead	5	0.2409	0.3547	47	10	
Manganese	5	30.084	31.936	6	10	
Molybdenum	5	9.7218	10.610	9	10	
Nickel	5	2.5976	5.6073	116	10	
Potassium	5	716.59	705.13	2	10	
Selenium	5	2.8283	3.6240	28	10	
Silver	5	<0.31	<1.55		10	
Sodium	50	336113	369022	10	10	
Uranium	5	101.39	108.02	7	10	
Vanadium	5	24.694	26.361	7	10	
Zinc	5	3.8852	7.0081	80	10	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755205
Analysis Date:	12/1/2014 4:05:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138		

Matrix Spike / Matrix Spike Duplicate

L733743-120

Analyte	Dil	Spike		MS	% Rec	MSD	% Rec	Control Limits	% Rec		Control Limits	RPD Qual
		Value	Sample						Qual	RPD		
Aluminum	1	500	153.95	655.02	100	670.96	103	70 - 130			2	20
Arsenic	1	50	3.4030	56.725	107	54.566	102	75 - 125			4	20
Barium	1	50	15.136	64.824	99	61.474	93	75 - 125			5	20
Boron	1	50	701.88	735.96	68	742.85	82	70 - 130	V		1	20
Cadmium	1	50	0.0446	49.611	99	49.005	98	75 - 125			1	20
Calcium	10	500	694526	690183	0	720528	520	70 - 130	V		4	20
Chromium	1	50	0.8627	53.863	106	52.960	104	75 - 125			2	20
Cobalt	1	50	0.1230	52.247	104	49.603	99	75 - 125			5	20
Copper	1	50	1.2687	52.279	102	50.125	98	75 - 125			4	20
Iron	1	500	128.67	642.55	103	624.79	99	75 - 125			3	20
Lead	1	50	0.2409	50.738	101	49.924	99	75 - 125			2	20
Manganese	1	50	30.084	81.352	103	78.892	98	75 - 125			3	20
Molybdenum	1	50	9.7218	65.227	111	62.382	105	75 - 125			4	20
Nickel	1	50	2.5976	52.744	100	51.295	97	75 - 125			3	20
Potassium	1	5000	716.59	5748.4	101	5584.1	97	70 - 130			3	20
Selenium	1	50	2.8283	51.456	97	47.661	90	75 - 125			8	20
Silver	1	50	0.1079	48.887	98	48.158	96	75 - 125			2	20
Sodium	10	500	336113	340431	86	350069	279	70 - 130	V		3	20
Uranium	1	50	101.39	158.51	114	157.13	111	70 - 130			1	20
Vanadium	1	50	24.694	76.976	105	77.408	105	75 - 125			1	20
Zinc	1	50	3.8852	48.982	90	47.473	87	75 - 125			3	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020	Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755207
Collection Date:	11/11/2014	Analyst:	117
Analysis Date:	12/1/2014 6:00:00 PM	Prep Date:	11/18/2014
Instrument ID:	ICPMS8		
Sample Numbers:	L733743-140, -141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158		

Serial Dilution

L733743-147

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum	5	80.723	112.56	39	10	
Arsenic	5	19.090	20.071	5	10	
Barium	5	126.39	130.96	4	10	
Boron	5	435.39	491.87	13	10	
Cadmium	5	<0.16	<0.8		10	
Calcium	25	205062	204124	0	10	
Chromium	5	0.6021	1.1048	83	10	
Cobalt	5	2.0848	1.9965	4	10	
Copper	5	<0.52	<2.6		10	
Iron	5	3519.6	3781.7	7	10	
Lead	5	0.7974	0.6225	22	10	
Manganese	5	385.44	413.09	7	10	
Molybdenum	5	1.4931	1.4836	1	10	
Nickel	5	3.7663	5.3726	43	10	
Potassium	5	461.14	399.40	13	10	
Selenium	5	<0.38	<1.9		10	
Silver	5	<0.31	<1.55		10	
Sodium	25	137058	141068	3	10	
Uranium	5	1.7979	1.7187	4	10	
Vanadium	5	1.0536	1.2378	17	10	
Zinc	5	<2.56	<12.8		10	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020	Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755207
Collection Date:	11/11/2014	Analyst:	117
Analysis Date:	12/1/2014 6:00:00 PM	Prep Date:	11/18/2014
Instrument ID:	ICPMS8		
Sample Numbers:	L733743-140, -141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158		

Matrix Spike / Matrix Spike Duplicate

L733743-147

Analyte	Dil	Spike		MS	% Rec	MSD	% Rec	Control Limits	% Rec		Control Limits	RPD Qual
		Value	Sample						Qual	RPD		
Aluminum	1	500	80.723	615.10	107	635.34	111	70 - 130			3	20
Arsenic	1	50	19.090	70.557	103	69.784	101	75 - 125			1	20
Barium	1	50	126.39	181.84	111	180.43	108	75 - 125			1	20
Boron	1	50	435.39	473.02	75	477.04	83	70 - 130			1	20
Cadmium	1	50	0.0298	50.858	102	49.911	100	75 - 125			2	20
Calcium	5	1000	205062	210896	117	198435	0	70 - 130	V		6	20
Chromium	1	50	0.6021	52.641	104	53.354	106	75 - 125			1	20
Cobalt	1	50	2.0848	51.521	99	50.919	98	75 - 125			1	20
Copper	1	50	0.5158	49.316	98	48.483	96	75 - 125			2	20
Iron	1	500	3519.6	4014.1	99	3996.8	95	75 - 125			0	20
Lead	1	50	0.7974	51.242	101	51.535	101	75 - 125			1	20
Manganese	1	50	385.44	436.04	101	427.32	84	75 - 125			2	20
Molybdenum	1	50	1.4931	52.157	101	52.497	102	75 - 125			1	20
Nickel	1	50	3.7663	51.972	96	52.088	97	75 - 125			0	20
Potassium	1	5000	461.14	5528.4	101	5465.7	100	70 - 130			1	20
Selenium	1	50	0.2529	45.041	90	45.407	90	75 - 125			1	20
Silver	1	50	0.0715	19.355	39	20.191	40	75 - 125	J6		4	20
Sodium	5	1000	137058	142717	113	137662	12	70 - 130	V		4	20
Uranium	1	50	1.7979	52.829	102	52.963	102	70 - 130			0	20
Vanadium	1	50	1.0536	52.966	104	53.855	106	75 - 125			2	20
Zinc	1	50	1.6104	49.200	95	48.822	94	75 - 125			1	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755207
Analysis Date:	12/1/2014 6:00:00 PM	Analyst:	117
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-140, -141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158		

Post Digest Spike

L733743-147

Analyte	Dil	Spike Value	Sample	Result	% Rec	Control Limits	Qualifier
Silver	1	50	0.0715	51.165	102	85-115	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM		Analytic Batch:	WG755208
Collection Date:	11/11/2014	Analyst:	664	
Analysis Date:	11/18/2014 4:01:00 PM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-50, -51, -52, -53, -54, -55, -56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, -72			

Serial Dilution

L733743-50

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum	25	<10	<50		10	
Arsenic	25	5.4925	4.6539	15	10	
Barium	25	18.827	16.710	11	10	
Cadmium	25	<0.8	<4		10	
Calcium	100	763475	843401	10	10	
Chromium	25	<2.7	<13.5		10	
Cobalt	25	<1.3	<6.5		10	
Copper	25	<2.6	<13		10	
Iron	25	2226.4	2532.3	14	10	
Lead	25	<1.2	<6		10	
Manganese	25	156.95	176.37	12	10	O1
Molybdenum	25	3.4087	3.5199	3	10	
Nickel	25	2.6616	12.008	351	10	
Potassium	25	12707	14210	12	10	O1
Selenium	25	4.0208	2.0352	49	10	
Silver	25	<1.55	<7.75		10	
Sodium	100	1723140	1930324	12	10	O1
Uranium	25	3.8336	3.4971	9	10	
Vanadium	25	0.9741	0.3706	62	10	
Zinc	25	<12.8	<64		10	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755208
Analysis Date:	11/18/2014 4:01:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-50, -51, -52, -53, -54, -55, -56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, -72		

Matrix Spike / Matrix Spike Duplicate

L733743-50

Analyte	Dil	Spike		MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
		Value	Sample									
Aluminum	5	100	7.5669	567.99	112	574.09	113	70 - 130		1	20	
Arsenic	5	10	5.4925	56.296	102	60.518	110	75 - 125		7	20	
Barium	5	10	18.827	71.837	106	77.037	116	75 - 125		7	20	
Boron	5	10	1289.6	1373.5	168	1552.4	526	70 - 130	V	12	20	
Cadmium	5	10	0.1728	49.968	100	52.871	105	75 - 125		6	20	
Calcium	20	250	763475	762995	0	822758	1186	70 - 130	V	8	20	
Chromium	5	10	1.4979	52.273	102	56.703	110	75 - 125		8	20	
Cobalt	5	10	0.2587	52.461	104	56.121	112	75 - 125		7	20	
Copper	5	10	1.4116	53.353	104	55.619	108	75 - 125		4	20	
Iron	5	100	2226.4	2778.0	110	2976.6	150	75 - 125	V	7	20	
Lead	5	10	-2.055	48.915	98	51.354	103	75 - 125		5	20	
Manganese	5	10	156.95	211.83	110	227.99	142	75 - 125	J5	7	20	
Molybdenum	5	10	3.4087	56.507	106	59.748	113	75 - 125		6	20	
Nickel	5	10	2.6616	55.941	107	57.311	109	75 - 125		2	20	
Potassium	5	1000	12707	17495	96	19291	132	70 - 130	J5	10	20	
Selenium	5	10	4.0208	49.689	91	60.539	113	75 - 125		20	20	
Silver	5	10	0.3857	48.567	96	52.010	103	75 - 125		7	20	
Sodium	20	250	1723140	1732500	187	1854762	2632	70 - 130	V	7	20	
Uranium	5	10	3.8336	54.936	102	57.361	107	70 - 130		4	20	
Vanadium	5	10	0.9741	52.262	103	59.543	117	75 - 125		13	20	
Zinc	5	10	12.642	55.067	85	52.445	80	75 - 125		5	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755209
Analysis Date:	11/19/2014 9:15:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-73, -74, -75, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, -94		

Serial Dilution

L733743-73

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum	5	12.925	21.370	65	10	
Arsenic	5	10.228	10.746	5	10	
Barium	5	42.746	43.126	1	10	
Boron	5	1724.1	1950.4	13	10	O1
Cadmium	5	<0.16	<0.8		10	
Calcium	25	381430	317741	17	10	O1
Chromium	5	376.16	392.06	4	10	
Cobalt	5	0.2678	0.5066	89	10	
Copper	5	<0.52	<2.6		10	
Iron	5	93.369	119.89	28	10	
Lead	5	3.5445	4.4424	25	10	
Manganese	5	293.26	305.48	4	10	
Molybdenum	5	2.4015	2.7925	16	10	
Nickel	5	19.619	22.605	15	10	
Potassium	5	619.62	910.78	47	10	
Selenium	5	<0.38	<1.9		10	
Silver	5	<0.31	<1.55		10	
Sodium	50	527278	453453	14	10	O1
Uranium	5	1.1653	1.2241	5	10	
Vanadium	5	1.7776	2.0071	13	10	
Zinc	5	<2.56	<12.8		10	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755209
Analysis Date:	11/19/2014 9:15:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-73, -74, -75, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, -94		

Matrix Spike / Matrix Spike Duplicate

L733743-73

Analyte	Dil	Spike		MS	% Rec	MSD	% Rec	Control Limits	% Rec		Control Limits	RPD Qual
		Value	Sample						Qual	RPD		
Aluminum	1	500	12.925	552.93	108	507.33	99	70 - 130			9	20
Arsenic	1	50	10.228	59.289	98	57.902	95	75 - 125			2	20
Barium	1	50	42.746	93.005	101	89.908	94	75 - 125			3	20
Boron	1	50	1724.1	1710.4	0	1713.9	0	70 - 130	V		0	20
Cadmium	1	50	0.0147	47.285	95	46.012	92	75 - 125			3	20
Calcium	5	1000	381430	350257	0	371035	0	70 - 130	V		6	20
Chromium	1	50	376.16	423.19	94	413.79	75	75 - 125			2	20
Cobalt	1	50	0.2678	46.774	93	47.080	94	75 - 125			1	20
Copper	1	50	0.4241	46.019	91	45.341	90	75 - 125			1	20
Iron	1	500	93.369	563.18	94	565.52	94	75 - 125			0	20
Lead	1	50	3.5445	50.117	93	48.349	90	75 - 125			4	20
Manganese	1	50	293.26	338.09	90	340.66	95	75 - 125			1	20
Molybdenum	1	50	2.4015	49.541	94	49.546	94	75 - 125			0	20
Nickel	1	50	19.619	64.594	90	64.920	91	75 - 125			1	20
Potassium	1	5000	619.62	5504.1	98	5354.9	95	70 - 130			3	20
Selenium	1	50	0.0779	47.289	94	48.140	96	75 - 125			2	20
Silver	1	50	0.0072	51.500	103	49.548	99	75 - 125			4	20
Sodium	10	500	527278	526610	0	504405	0	70 - 130	V		4	20
Uranium	1	50	1.1653	47.892	93	46.414	90	70 - 130			3	20
Vanadium	1	50	1.7776	50.608	98	48.623	94	75 - 125			4	20
Zinc	1	50	0.8348	46.659	92	45.956	90	75 - 125			2	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755211	
Collection Date:	11/11/2014	Analyst:	664	
Analysis Date:	11/20/2014 5:49:00 PM	Prep Date:	11/18/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-95, -96, -97, -98, -99, -160			

Serial Dilution

L733743-160

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum	5	11.546	169.25	1366	10	
Arsenic	5	<0.25	<1.25		10	
Barium	5	2.9236	4.3604	49	10	
Boron	5	18.936	1.0772	94	10	
Cadmium	5	<0.16	<0.8		10	
Calcium	5	335.11	332.97	1	10	
Chromium	5	<0.54	<2.7		10	
Cobalt	5	<0.26	<1.3		10	
Copper	5	<0.52	<2.6		10	
Iron	5	<15	<75		10	
Lead	5	<0.24	<1.2		10	
Manganese	5	6.0564	6.7789	12	10	
Molybdenum	5	<0.14	<0.7		10	
Nickel	5	0.7407	0.4698	37	10	
Potassium	5	<37	<185		10	
Selenium	5	0.6340	4.7990	657	10	
Silver	5	<0.31	<1.55		10	
Sodium	5	238.35	72.645	70	10	
Uranium	5	<0.33	<1.65		10	
Vanadium	5	<0.18	<0.9		10	
Zinc	5	<2.56	<12.8		10	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020	Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755211
Collection Date:	11/11/2014	Analyst:	664
Analysis Date:	11/20/2014 5:49:00 PM	Prep Date:	11/18/2014
Instrument ID:	ICPMS8		
Sample Numbers:	L733743-95, -96, -97, -98, -99, -160		

Matrix Spike / Matrix Spike Duplicate

L733743-160

Analyte	Dil	Spike		MS	% Rec	MSD	% Rec	Control Limits	% Rec		Control Limits	RPD
		Value	Sample						Qual	RPD		
Aluminum	1	500	11.546	534.68	105	562.99	110	70 - 130		5	20	
Arsenic	1	50	0.0144	50.924	102	52.121	104	75 - 125		2	20	
Barium	1	50	2.9236	56.578	107	57.621	109	75 - 125		2	20	
Boron	1	50	18.936	70.847	104	74.952	112	70 - 130		6	20	
Cadmium	1	50	0.0097	51.635	103	53.738	107	75 - 125		4	20	
Calcium	1	5000	335.11	5564.5	105	5661.7	107	70 - 130		2	20	
Chromium	1	50	0.5372	53.686	106	53.805	107	75 - 125		0	20	
Cobalt	1	50	0.1161	52.029	104	52.843	105	75 - 125		2	20	
Copper	1	50	0.4281	52.585	104	52.842	105	75 - 125		0	20	
Iron	1	500	-8.561	571.36	114	518.71	104	75 - 125		10	20	
Lead	1	50	0.0998	52.336	104	53.721	107	75 - 125		3	20	
Manganese	1	50	6.0564	59.859	108	59.906	108	75 - 125		0	20	
Molybdenum	1	50	0.0228	51.040	102	51.308	103	75 - 125		1	20	
Nickel	1	50	0.7407	52.884	104	53.201	105	75 - 125		1	20	
Potassium	1	5000	30.245	5198.0	103	5297.9	105	70 - 130		2	20	
Selenium	1	50	0.6340	50.326	99	51.099	101	75 - 125		2	20	
Silver	1	50	0.0102	51.973	104	52.545	105	75 - 125		1	20	
Sodium	1	5000	238.35	5364.5	103	5463.8	105	70 - 130		2	20	
Uranium	1	50	0.0016	51.202	102	52.741	105	70 - 130		3	20	
Vanadium	1	50	0.0138	52.273	105	53.911	108	75 - 125		3	20	
Zinc	1	50	0.3990	49.074	97	49.774	99	75 - 125		1	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755434
Analysis Date:	11/20/2014 7:41:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/19/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15		

Serial Dilution

L733743-01

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum,Dissolved	25	<10	<50		10	
Arsenic,Dissolved	25	5.0344	5.0219	0	10	
Barium,Dissolved	25	27.805	23.183	17	10	
Boron,Dissolved	25	311.97	331.41	6	10	
Cadmium,Dissolved	25	<0.8	<4		10	
Calcium,Dissolved	250	1198233	1119488	7	10	
Chromium,Dissolved	25	<2.7	<13.5		10	
Cobalt,Dissolved	25	<1.3	<6.5		10	
Copper,Dissolved	25	<2.6	<13		10	
Iron,Dissolved	25	<75	<375		10	
Lead,Dissolved	25	<1.2	<6		10	
Manganese,Dissolved	25	128.80	111.14	14	10	O1
Molybdenum,Dissolved	25	12.118	12.811	6	10	
Nickel,Dissolved	25	2.9145	0.3469	88	10	
Potassium,Dissolved	25	7198.7	6149.7	15	10	
Selenium,Dissolved	25	29.063	31.486	8	10	
Silver,Dissolved	25	<1.55	<7.75		10	
Sodium,Dissolved	250	2593675	2599558	0	10	
Uranium,Dissolved	25	16.127	16.366	1	10	
Vanadium,Dissolved	25	11.270	10.063	11	10	
Zinc,Dissolved	25	20.450	-20.38	200	10	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755434
Analysis Date:	11/20/2014 7:41:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/19/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15		

Matrix Spike / Matrix Spike Duplicate

L733743-01

Analyte	Dil	Spike		MS	% Rec	MSD	% Rec	Control Limits	% Rec		Control Limits	RPD
		Value	Sample						Qual	RPD		
Aluminum,Dissolved	5	100	-4.408	497.59	100	461.64	92	70 - 130		7	20	
Arsenic,Dissolved	5	10	5.0344	51.680	93	50.211	90	75 - 125		3	20	
Barium,Dissolved	5	10	27.805	69.081	83	68.136	81	75 - 125		1	20	
Boron,Dissolved	5	10	311.97	343.42	63	356.75	90	70 - 130	V	4	20	
Cadmium,Dissolved	5	10	0.1138	47.212	94	44.648	89	75 - 125		6	20	
Calcium,Dissolved	50	100	1198233	1207317	182	1192850	0	70 - 130	V	1	20	
Chromium,Dissolved	5	10	0.5143	48.780	97	44.688	88	75 - 125		9	20	
Cobalt,Dissolved	5	10	0.4366	46.344	92	44.506	88	75 - 125		4	20	
Copper,Dissolved	5	10	0.9282	46.885	92	43.937	86	75 - 125		6	20	
Iron,Dissolved	5	100	-71.49	389.28	78	366.48	73	75 - 125	J6	6	20	
Lead,Dissolved	5	10	1.1616	51.923	102	52.344	102	75 - 125		1	20	
Manganese,Dissolved	5	10	128.80	172.08	87	162.02	66	75 - 125	J6	6	20	
Molybdenum,Dissolved	5	10	12.118	57.443	91	56.916	90	75 - 125		1	20	
Nickel,Dissolved	5	10	2.9145	47.927	90	46.286	87	75 - 125		3	20	
Potassium,Dissolved	5	1000	7198.7	11792	92	11267	81	70 - 130		5	20	
Selenium,Dissolved	5	10	29.063	70.325	83	69.668	81	75 - 125		1	20	
Silver,Dissolved	5	10	0.4803	47.171	93	45.875	91	75 - 125		3	20	
Sodium,Dissolved	50	100	2593675	2584216	0	2533656	0	70 - 130	V	2	20	
Uranium,Dissolved	5	10	16.127	64.924	98	65.126	98	70 - 130		0	20	
Vanadium,Dissolved	5	10	11.270	59.373	96	56.352	90	75 - 125		5	20	
Zinc,Dissolved	5	10	20.450	40.208	40	38.005	35	75 - 125	J6	6	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003	
Project:	Navajo Refining Company - Artesia, NM		Analytic Batch:	WG756145
Collection Date:	11/11/2014	Analyst:	117	
Analysis Date:	11/24/2014 6:51:00 PM	Prep Date:	11/21/2014	
Instrument ID:	ICPMS8			
Sample Numbers:	L733743-33, -35, -36, -37, -39, -43, -44, -45			

Serial Dilution

L733743-33

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Chromium	5	0.5494	0.5732	4	10	

Matrix Spike / Matrix Spike Duplicate

L733743-33

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chromium	1	50	0.5494	49.333	98	50.652	100	75 - 125	3	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754942
Analysis Date:	11/18/2014 11:09:00 AM	Analyst:	621
Instrument ID:	VOCGC4		
Sample Numbers:	L733743-01, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.0837	92.4	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.9147	89.4	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.0837	92.4	4.9147	89.4	67 - 132	3.38	20	

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754943
Analysis Date:	11/20/2014 5:40:00 AM	Analyst:	621
Instrument ID:	VOCGC7		
Sample Numbers:	L733743-30, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49, -50		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	3.8540	70.1	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	3.8043	69.2	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	RPD	Qual
TPH (GC/FID) Low Fraction	1	5.5	3.8540	70.1	3.8043	69.2	67 - 132	1.3	20		



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754944
Analysis Date:	11/20/2014 6:34:00 AM	Analyst:	621
Instrument ID:	VOCGC6		
Sample Numbers:	L733743-51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -66, -71, -75		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.4589	81.1	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.5536	82.8	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.4589	81.1	4.5536	82.8	67 - 132	2.1	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754945
Analysis Date:	11/20/2014 9:35:00 AM	Analyst:	621
Instrument ID:	VOCGC4		
Sample Numbers:	L733743-94, -95, -96, -97, -98, -100, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.4498	80.9	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.5882	83.4	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.4498	80.9	4.5882	83.4	67 - 132	3.06	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754946
Analysis Date:	11/20/2014 5:40:00 AM	Analyst:	621
Instrument ID:	VOCGC1		
Sample Numbers:	L733743-113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.9217	89.5	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.8755	88.6	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.9217	89.5	4.8755	88.6	67 - 132	0.94	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754947
Analysis Date:	11/21/2014 12:26:00 PM	Analyst:	621
Instrument ID:	VOCGC7		
Sample Numbers:	L733743-135, -136, -137, -138, -143, -145, -146, -147, -151, -152, -153, -154, -155, -156, -157, -158		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.3597	97.4	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.2829	96.1	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.3597	97.4	5.2829	96.1	67 - 132	1.44	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754948
Analysis Date:	11/19/2014 4:45:00 AM	Analyst:	621
Instrument ID:	VOCGC12		
Sample Numbers:	L733743-159, -160		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.8335	87.9	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.7966	87.2	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.8335	87.9	4.7966	87.2	67 - 132	0.77	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755413
Analysis Date:	11/19/2014 2:58:00 PM	Analyst:	621
Instrument ID:	VOCGC4		
Sample Numbers:	L733743-02		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.6972	85.4	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.8005	87.3	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.6972	85.4	4.8005	87.3	67 - 132	2.18	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755883
Analysis Date:	11/21/2014 12:32:00 AM	Analyst:	621
Instrument ID:	VOCGC6		
Sample Numbers:	L733743-03, -04, -05, -06, -07, -08, -09, -29, -79, -93, -99		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	6.5553	119	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	6.8755	125	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
TPH (GC/FID) Low Fraction	1	5.5	6.5553	119	6.8755	125	67 - 132	4.77	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755923
Analysis Date:	11/21/2014 11:32:00 AM	Analyst:	621
Instrument ID:	VOCGC12		
Sample Numbers:	L733743-69, -70, -72, -73, -74		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.7254	104	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.6209	102	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.7254	104	5.6209	102	67 - 132	1.84	20	



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756173
Analysis Date:	11/22/2014 5:58:00 PM	Analyst:	621
Instrument ID:	VOCGC12		
Sample Numbers:	L733743-133, -148, -149, -150		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.4556	99.2	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.4438	99	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.4556	99.2	5.4438	99	67 - 132	0.22	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754942
Analysis Date:	11/18/2014 11:09:00 AM	Analyst:	621
Instrument ID:	VOCGC4		
Sample Numbers:	L733743-01, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28		

Matrix Spike / Matrix Spike Duplicate

L733743-01

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	1	5.5	0.0385	4.9774	89.8	4.8117	86.8	50 - 143	3.39	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754943
Analysis Date:	11/20/2014 5:40:00 AM	Analyst:	621
Instrument ID:	VOCGC7		
Sample Numbers:	L733743-30, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49, -50		

Matrix Spike / Matrix Spike Duplicate

L733743-30

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	1	5.5	0.9060	4.8078	70.9	4.7590	70.1	50 - 143		1.02		20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754944
Analysis Date:	11/20/2014 6:34:00 AM	Analyst:	621
Instrument ID:	VOCGC6		
Sample Numbers:	L733743-51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -66, -71, -75		

Matrix Spike / Matrix Spike Duplicate

L733743-51

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	1	5.5	0.0	4.6587	84.7	4.9269	89.6	50 - 143	5.6		20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754945
Analysis Date:	11/20/2014 9:35:00 AM	Analyst:	621
Instrument ID:	VOCGC4		
Sample Numbers:	L733743-94, -95, -96, -97, -98, -100, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112		

Matrix Spike / Matrix Spike Duplicate

L733743-102

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	1	5.5	0.0320	4.4774	80.8	4.4880	81	50 - 143	0.24	20		



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754946
Analysis Date:	11/20/2014 5:40:00 AM	Analyst:	621
Instrument ID:	VOCGC1		
Sample Numbers:	L733743-113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131		

Matrix Spike / Matrix Spike Duplicate

L733743-123

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	1	5.5	0.0148	3.8758	70.2	3.8603	69.9	50 - 143	0.4	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754947
Analysis Date:	11/21/2014 12:26:00 PM	Analyst:	621
Instrument ID:	VOCGC7		
Sample Numbers:	L733743-135, -136, -137, -138, -143, -145, -146, -147, -151, -152, -153, -154, -155, -156, -157, -158		

Matrix Spike / Matrix Spike Duplicate

L733743-153

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	1	5.5	0.0138	5.2435	95.1	5.5805	101	50 - 143	6.23	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754948
Analysis Date:	11/19/2014 4:45:00 AM	Analyst:	621
Instrument ID:	VOCGC12		
Sample Numbers:	L733743-159, -160		

Matrix Spike / Matrix Spike Duplicate

L733743-159

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	1	5.5	0.0	4.9202	89.5	4.6411	84.4	50 - 143		5.84	20	



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755413
Analysis Date:	11/19/2014 2:58:00 PM	Analyst:	621
Instrument ID:	VOCGC4		
Sample Numbers:	L733743-02		

Matrix Spike / Matrix Spike Duplicate

L733020-03

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	1	5.5	0.0222	4.6873	84.8	4.7539	86	50 - 143	1.41	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755883
Analysis Date:	11/21/2014 12:32:00 AM	Analyst:	621
Instrument ID:	VOCGC6		
Sample Numbers:	L733743-03, -04, -05, -06, -07, -08, -09, -29, -79, -93, -99		

Matrix Spike / Matrix Spike Duplicate

L733869-15

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	50	5.5	57.800	481.75	154	389.43	121	50 - 143	J5	21.2	20	J3



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test: Volatile TPH by Method 8015D/GRO
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG755923**
 Analysis Date: 11/21/2014 11:32:00 AM Analyst: 621
 Instrument ID: VOCGC12
 Sample Numbers: L733743-69, -70, -72, -73, -74

Matrix Spike / Matrix Spike Duplicate

L733743-69

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual RPD	Control Limits	RPD Qual
TPH (GC/FID) Low Fraction	1	5.5	1.0057	6.0704	92.1	6.4498	99	50 - 143	6.06	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756173
Analysis Date:	11/22/2014 5:58:00 PM	Analyst:	621
Instrument ID:	VOCGC12		
Sample Numbers:	L733743-133, -148, -149, -150		

Matrix Spike / Matrix Spike Duplicate

L733869-44

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	1	5.5	0.0	5.3569	97.4	5.3869	97.9	50 - 143	0.56		20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754942
Analysis Date:	11/18/2014 11:09:00 AM	Analyst:	621
Instrument ID:	VOCGC4		
Sample Numbers:	L733743-01, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28		

Surrogate Summary

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec
L733743-01	VOCGC4	1117_43	0.216	108
L733743-10	VOCGC4	1117_57	0.218	109
L733743-11	VOCGC4	1117_58	0.218	109
L733743-12	VOCGC4	1117_59	0.217	109
L733743-13	VOCGC4	1117_60	0.218	109
L733743-14	VOCGC4	1117_61	0.218	109
L733743-15	VOCGC4	1117_62	0.218	109
L733743-25	VOCGC4	1117_63	0.218	109
L733743-26	VOCGC4	1117_64	0.222	111
L733743-27	VOCGC4	1117_65	0.221	110
L733743-28	VOCGC4	1117_66	0.219	109
LCS WG754942	VOCGC4	1117_37	0.219	109
LCSD WG754942	VOCGC4	1117_38	0.220	110
MS WG754942	VOCGC4	1117_39	0.218	109
MSD WG754942	VOCGC4	1117_40	0.216	108
BLANK WG754942	VOCGC4	1117_42	0.217	108

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754943
Analysis Date:	11/20/2014 5:40:00 AM	Analyst:	621
Instrument ID:	VOCGC7		
Sample Numbers:	L733743-30, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49, -50		

Surrogate Summary

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec
L733743-30	VOCGC7	1119_44	0.195	97.5
L733743-32	VOCGC7	1119_45	0.196	98.2
L733743-33	VOCGC7	1119_46	0.196	98.2
L733743-34	VOCGC7	1119_47	0.196	98.1
L733743-35 5x	VOCGC7	1119_48	0.198	99.0
L733743-36 5x	VOCGC7	1119_49	0.198	99.2
L733743-37	VOCGC7	1119_50	0.202	101
L733743-38	VOCGC7	1119_51	0.195	97.7
L733743-39	VOCGC7	1119_52	0.195	97.7
L733743-40	VOCGC7	1119_53	0.196	98.2
L733743-41	VOCGC7	1119_58	0.194	97.2
L733743-42	VOCGC7	1119_59	0.195	97.7
L733743-43	VOCGC7	1119_60	0.196	98.2
L733743-44	VOCGC7	1119_61	0.195	97.7
L733743-45	VOCGC7	1119_62	0.195	97.7
L733743-46	VOCGC7	1119_63	0.196	98.2
L733743-47	VOCGC7	1119_64	0.196	98.0
L733743-48	VOCGC7	1119_65	0.194	97.2
L733743-49	VOCGC7	1119_66	0.195	97.4
L733743-50	VOCGC7	1119_67	0.195	97.7
LCS WG754943	VOCGC7	1119_38	0.208	104
LCSD WG754943	VOCGC7	1119_39	0.207	104
MS WG754943	VOCGC7	1119_40	0.207	104
MSD WG754943	VOCGC7	1119_41	0.207	103
BLANK WG754943	VOCGC7	1119_43	0.196	98.0

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754944
Analysis Date:	11/20/2014 6:34:00 AM	Analyst:	621
Instrument ID:	VOCGC6		
Sample Numbers:	L733743-51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -66, -71, -75		

Surrogate Summary

Laboratory	Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec
	L733743-51	VOCGC6	1119_47	0.198	98.8		
	L733743-52	VOCGC6	1119_48	0.197	98.6		
	L733743-53	VOCGC6	1119_49	0.198	98.8		
	L733743-54	VOCGC6	1119_50	0.197	98.5		
	L733743-55	VOCGC6	1119_51	0.197	98.7		
	L733743-57	VOCGC6	1119_52	0.197	98.5		
	L733743-58	VOCGC6	1119_53	0.197	98.7		
	L733743-59	VOCGC6	1119_54	0.198	99.1		
	L733743-60	VOCGC6	1119_55	0.198	98.9		
	L733743-61	VOCGC6	1119_56	0.197	98.7		
	L733743-62	VOCGC6	1119_62	0.197	98.7		
	L733743-63	VOCGC6	1119_63	0.198	98.9		
	L733743-66	VOCGC6	1119_64	0.198	98.8		
	L733743-71 25x	VOCGC6	1119_67	0.199	99.3		
	L733743-75	VOCGC6	1119_71	0.198	98.9		
	LCS WG754944	VOCGC6	1119_41	0.197	98.6	0.202	101
	LCSD WG754944	VOCGC6	1119_42	0.197	98.4	0.202	101
	MS WG754944	VOCGC6	1119_43	0.197	98.4	0.203	102
	MSD WG754944	VOCGC6	1119_44	0.197	98.5	0.203	102
	BLANK WG754944	VOCGC6	1119_46	0.197	98.5	0.202	101

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754945
Analysis Date:	11/20/2014 9:35:00 AM	Analyst:	621
Instrument ID:	VOCGC4		
Sample Numbers:	L733743-94, -95, -96, -97, -98, -100, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112		

Surrogate Summary

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec
L733743-100 10x	VOCGC4	1119_44	0.231	116
L733743-102	VOCGC4	1119_43	0.228	114
L733743-103	VOCGC4	1119_45	0.228	114
L733743-104 5x	VOCGC4	1119_46	0.232	116
L733743-105 100x	VOCGC4	1119_47	0.229	115
L733743-106 25x	VOCGC4	1119_48	0.224	112
L733743-107 10x	VOCGC4	1119_49	0.233	117
L733743-108	VOCGC4	1119_50	0.229	114
L733743-109 10x	VOCGC4	1119_51	0.232	116
L733743-110 50x	VOCGC4	1119_52	0.230	115
L733743-111 100x	VOCGC4	1119_58	0.229	115
L733743-112 10x	VOCGC4	1119_59	0.234	117
L733743-94	VOCGC4	1119_62	0.230	115
L733743-95	VOCGC4	1119_63	0.230	115
L733743-96	VOCGC4	1119_64	0.230	115
L733743-97 100x	VOCGC4	1119_65	0.230	115
L733743-98 10x	VOCGC4	1119_66	0.244	122
LCS WG754945	VOCGC4	1119_37	0.230	115
LCSD WG754945	VOCGC4	1119_38	0.225	113
MS WG754945	VOCGC4	1119_39	0.228	114
MSD WG754945	VOCGC4	1119_40	0.228	114
BLANK WG754945	VOCGC4	1119_42	0.228	114

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754946
Analysis Date:	11/20/2014 5:40:00 AM	Analyst:	621
Instrument ID:	VOCGC1		
Sample Numbers:	L733743-113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131		

Surrogate Summary

Laboratory	Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec
	L733743-113 25x	VOCGC1	1119_52	0.199	99.3		
	L733743-114 25x	VOCGC1	1119_53	0.201	101		
	L733743-115	VOCGC1	1119_54	0.159	79.3		
	L733743-116	VOCGC1	1119_55	0.193	96.4		
	L733743-117	VOCGC1	1119_56	0.196	98.0		
	L733743-118	VOCGC1	1119_57	0.183	91.4		
	L733743-119	VOCGC1	1119_58	0.199	99.3		
	L733743-120	VOCGC1	1119_59	0.197	98.7		
	L733743-121	VOCGC1	1119_60	0.198	98.9		
	L733743-122	VOCGC1	1119_65	0.198	99.2		
	L733743-123	VOCGC1	1119_51	0.197	98.7		
	L733743-124	VOCGC1	1119_66	0.198	99.1		
	L733743-125	VOCGC1	1119_67	0.198	99.1		
	L733743-126	VOCGC1	1119_68	0.200	99.8		
	L733743-127	VOCGC1	1119_69	0.199	99.4		
	L733743-128 10x	VOCGC1	1119_70	0.194	97.2		
	L733743-129	VOCGC1	1119_71	0.195	97.3		
	L733743-130	VOCGC1	1119_72	0.199	99.5		
	L733743-131 25x	VOCGC1	1119_73	0.197	98.4		
	L733743-132	VOCGC1	1119_74	0.198	99.0		
	LCS WG754946	VOCGC1	1119_45	0.198	99.2	0.231	116
	LCSD WG754946	VOCGC1	1119_46	0.202	101	0.231	115
	MS WG754946	VOCGC1	1119_47	0.195	97.7	0.223	112
	MSD WG754946	VOCGC1	1119_48	0.199	99.5	0.223	112
	BLANK WG754946	VOCGC1	1119_50	0.200	100	0.212	106

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754947
Analysis Date:	11/21/2014 12:26:00 PM	Analyst:	621
Instrument ID:	VOCGC7		
Sample Numbers:	L733743-135, -136, -137, -138, -143, -145, -146, -147, -151, -152, -153, -154, -155, -156, -157, -158		

Surrogate Summary

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec
L733743-135 100x	VOCGC7	1120_45	0.194	97.2
L733743-136 50x	VOCGC7	1120_46	0.196	98.1
L733743-137 50x	VOCGC7	1120_47	0.194	97.0
L733743-138 50x	VOCGC7	1120_48	0.195	97.6
L733743-143 50x	VOCGC7	1120_49	0.194	97.1
L733743-145 100x	VOCGC7	1120_50	0.195	97.6
L733743-146 20x	VOCGC7	1120_51	0.197	98.4
L733743-147 50x	VOCGC7	1120_52	0.196	98.0
L733743-151 10x	VOCGC7	1120_60	0.193	96.7
L733743-152 10x	VOCGC7	1120_61	0.194	97.2
L733743-153	VOCGC7	1120_43	0.195	97.7
L733743-154	VOCGC7	1120_62	0.196	97.8
L733743-155	VOCGC7	1120_63	0.196	98.1
L733743-156	VOCGC7	1120_64	0.197	98.6
L733743-157	VOCGC7	1120_65	0.197	98.4
L733743-158	VOCGC7	1120_66	0.197	98.5
LCS WG754947	VOCGC7	1120_37	0.215	107
LCSD WG754947	VOCGC7	1120_38	0.213	107
MS WG754947	VOCGC7	1120_39	0.213	107
MSD WG754947	VOCGC7	1120_40	0.215	108
BLANK WG754947	VOCGC7	1120_42	0.196	98.1

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754948
Analysis Date:	11/19/2014 4:45:00 AM	Analyst:	621
Instrument ID:	VOCGC12		
Sample Numbers:	L733743-159, -160		

Surrogate Summary

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec
L733743-159	VOCGC12	1118_45	0.201	101		
L733743-160	VOCGC12	1118_49	0.203	101		
LCS WG754948	VOCGC12	1118_38	0.197	98.7	0.206	103
LCSD WG754948	VOCGC12	1118_39	0.198	98.9	0.206	103
MS WG754948	VOCGC12	1118_40	0.197	98.6	0.208	104
MSD WG754948	VOCGC12	1118_41	0.196	98.2	0.205	103
BLANK WG754948	VOCGC12	1118_43	0.203	101	0.205	103

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		Matrix:	Water - mg/L
Project No:	TX000836.0008.00004		EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM		Analytic Batch:	WG755413
Collection Date:	11/11/2014		Analyst:	621
Analysis Date:	11/19/2014 2:58:00 PM			
Instrument ID:	VOCGC4			
Sample Numbers:	L733743-02			

Surrogate Summary

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec
L733743-02	VOCGC4	1119_19	0.225	112
LCS WG755413	VOCGC4	1119_04	0.227	113
LCSD WG755413	VOCGC4	1119_05	0.227	113
MS WG755413	VOCGC4	1119_06	0.225	113
MSD WG755413	VOCGC4	1119_07	0.226	113
BLANK WG755413	VOCGC4	1119_09	0.224	112

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755883
Analysis Date:	11/21/2014 12:32:00 AM	Analyst:	621
Instrument ID:	VOCGC6		
Sample Numbers:	L733743-03, -04, -05, -06, -07, -08, -09, -29, -79, -93, -99		

Surrogate Summary

Laboratory	Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec
	L733743-03	VOCGC6	1120_17	0.198	98.9		
	L733743-04	VOCGC6	1120_18	0.198	99.1		
	L733743-05	VOCGC6	1120_19	0.198	99.2		
	L733743-06	VOCGC6	1120_20	0.198	98.8		
	L733743-07	VOCGC6	1120_21	0.197	98.7		
	L733743-08	VOCGC6	1120_22	0.198	98.8		
	L733743-09	VOCGC6	1120_23	0.198	98.8		
	L733743-29	VOCGC6	1120_24	0.198	98.8		
	L733743-79	VOCGC6	1120_25	0.198	98.9		
	L733743-93	VOCGC6	1120_30	0.195	97.7		
	L733743-99	VOCGC6	1120_31	0.197	98.4		
LCS	WG755883	VOCGC6	1120_04	0.198	98.9	0.202	101
LCS	WG755883	VOCGC6	1120_06	0.199	99.7	0.203	101
LCSD	WG755883	VOCGC6	1120_07	0.199	99.5	0.204	102
LCSD	WG755883	VOCGC6	1120_08	0.198	99.1	0.202	101
MS	WG755883	VOCGC6	1120_09	0.196	97.8	0.201	100
MSD	WG755883	VOCGC6	1120_10	0.196	97.8	0.201	100
MS	WG755883	VOCGC6	1120_11	0.204	102	0.208	104
MSD	WG755883	VOCGC6	1120_12	0.201	101	0.206	103
BLANK	WG755883	VOCGC6	1120_15	0.198	98.9	0.203	101

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755923
Analysis Date:	11/21/2014 11:32:00 AM	Analyst:	621
Instrument ID:	VOCGC12		
Sample Numbers:	L733743-69, -70, -72, -73, -74		

Surrogate Summary

Laboratory	Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec
	L733743-69	VOCGC12	1121_16	0.184	92.0		
	L733743-70	VOCGC12	1121_17	0.201	101		
	L733743-72	VOCGC12	1121_18	0.183	91.5		
	L733743-73	VOCGC12	1121_19	0.176	88.1		
	L733743-74	VOCGC12	1121_20	0.180	89.9		
	LCS WG755923	VOCGC12	1121_04	0.201	100	0.201	101
	LCSD WG755923	VOCGC12	1121_05	0.201	100	0.202	101
	LCS WG755923	VOCGC12	1121_06	0.196	97.9	0.204	102
	LCSD WG755923	VOCGC12	1121_07	0.196	97.9	0.203	102
	MS WG755923	VOCGC12	1121_08	0.200	100	0.202	101
	MSD WG755923	VOCGC12	1121_09	0.200	100	0.201	100
	MS WG755923	VOCGC12	1121_10	0.185	92.5	0.197	98.7
	MSD WG755923	VOCGC12	1121_11	0.184	92.2	0.196	98.2
	BLANK WG755923	VOCGC12	1121_13	0.202	101	0.204	102

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756173
Analysis Date:	11/22/2014 5:58:00 PM	Analyst:	621
Instrument ID:	VOCGC12		
Sample Numbers:	L733743-133, -148, -149, -150		

Surrogate Summary

Laboratory	Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec
	L733743-133	VOCGC12	1122_17	0.201	100		
	L733743-148	VOCGC12	1122_18	0.184	92.1		
	L733743-149	VOCGC12	1122_19	0.182	91.1		
	L733743-150	VOCGC12	1122_20	0.201	100		
	LCS WG756173	VOCGC12	1122_04	0.202	101	0.202	101
	LCSD WG756173	VOCGC12	1122_05	0.202	101	0.202	101
	LCSD WG756173	VOCGC12	1122_07	0.197	98.5	0.203	102
	MS WG756173	VOCGC12	1122_08	0.199	99.3	0.203	102
	MSD WG756173	VOCGC12	1122_09	0.199	99.6	0.203	102
	MS WG756173	VOCGC12	1122_10	0.195	97.6	0.204	102
	MSD WG756173	VOCGC12	1122_11	0.194	96.8	0.202	101
	BLANK WG756173	VOCGC12	1122_13	0.202	101	0.204	102
	LCS WG756173	VOCGC12	1122_06	0.195	97.6	0.203	101

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754909
Analysis Date:	11/21/2014 11:52:00 AM	Analyst:	644
Instrument ID:	VOCMS20		
Sample Numbers:	L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754909
Analysis Date:	11/21/2014 11:52:00 AM	Analyst:	644
Instrument ID:	VOCMS20		
Sample Numbers:	L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754914
Analysis Date:	11/17/2014 2:20:00 AM	Analyst:	644
Instrument ID:	VOCMS14		
Sample Numbers:	L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754914
Analysis Date:	11/17/2014 2:20:00 AM	Analyst:	644
Instrument ID:	VOCMS14		
Sample Numbers:	L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754915
Analysis Date:	11/19/2014 3:01:00 PM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754915
Analysis Date:	11/19/2014 3:01:00 PM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754916
Analysis Date:	11/22/2014 3:10:00 AM	Analyst:	644
Instrument ID:	VOCMS7		
Sample Numbers:	L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754916
Analysis Date:	11/22/2014 3:10:00 AM	Analyst:	644
Instrument ID:	VOCMS7		
Sample Numbers:	L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754917
Analysis Date:	11/19/2014 3:06:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	0.00109	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754917
Analysis Date:	11/19/2014 3:06:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754918
Analysis Date:	11/20/2014 5:53:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754918
Analysis Date:	11/20/2014 5:53:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754919
Analysis Date:	11/21/2014 10:42:00 PM	Analyst:	644
Instrument ID:	VOCMS13		
Sample Numbers:	L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754919
Analysis Date:	11/21/2014 10:42:00 PM	Analyst:	644
Instrument ID:	VOCMS13		
Sample Numbers:	L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,1,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755736
Analysis Date:	11/20/2014 4:24:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755736
Analysis Date:	11/20/2014 4:24:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0277	111	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0312	125	73.2 - 123	J4
1,1,2,2-Tetrachloroethane	1	0.025	0.0260	104	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0240	96	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0285	114	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0293	117	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0279	112	75 - 123	
1,2-Dibromoethane	1	0.025	0.0236	94.5	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0263	105	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0272	109	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0280	112	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1124	89.9	55 - 149	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1244	99.5	70.5 - 133	
Acetone	1	0.125	0.1146	91.6	35.6 - 163	
Benzene	1	0.025	0.0256	102	74.8 - 121	
Bromodichloromethane	1	0.025	0.0291	116	75.1 - 116	
Bromoform	1	0.025	0.0249	99.4	67.5 - 130	
Bromomethane	1	0.025	0.0320	128	49.9 - 162	
Carbon tetrachloride	1	0.025	0.0301	120	70.2 - 123	
Chlorobenzene	1	0.025	0.0261	104	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0242	96.6	74 - 121	
Chloroethane	1	0.025	0.0284	114	61.7 - 135	
Chloroform	1	0.025	0.0295	118	76 - 121	
Chloromethane	1	0.025	0.0262	105	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0278	111	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0273	109	78.2 - 120	
Ethylbenzene	1	0.025	0.0263	105	78.8 - 122	
Isopropylbenzene	1	0.025	0.0279	112	78.6 - 132	
m&p-Xylenes	1	0.05	0.0534	107	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0282	113	71.2 - 126	
Methylene Chloride	1	0.025	0.0261	104	70.3 - 120	
Naphthalene	1	0.025	0.0248	99.3	68.4 - 128	
n-Butylbenzene	1	0.025	0.0294	118	76.2 - 126	
n-Propylbenzene	1	0.025	0.0271	108	78.2 - 122	
o-Xylene	1	0.025	0.0266	106	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0286	114	74 - 131	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
sec-Butylbenzene	1	0.025	0.0280	112	74.4 - 127	
Styrene	1	0.025	0.0275	110	80.4 - 126	
Tetrachloroethene	1	0.025	0.0252	101	72.6 - 126	
Toluene	1	0.025	0.0257	103	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0286	115	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0270	108	74.3 - 123	
Trichloroethene	1	0.025	0.0258	103	77.7 - 118	
Vinyl chloride	1	0.025	0.0297	119	65.9 - 128	
Xylenes, Total	1	0.075	0.0800	107	78.7 - 121	



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0279	112	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0306	122	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0274	110	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0248	99.2	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0281	113	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0286	114	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0284	114	75 - 123	
1,2-Dibromoethane	1	0.025	0.0243	97.1	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0272	109	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0275	110	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0284	113	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1289	103	55 - 149	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1361	109	70.5 - 133	
Acetone	1	0.125	0.1250	100	35.6 - 163	
Benzene	1	0.025	0.0257	103	74.8 - 121	
Bromodichloromethane	1	0.025	0.0289	116	75.1 - 116	
Bromoform	1	0.025	0.0262	105	67.5 - 130	
Bromomethane	1	0.025	0.0300	120	49.9 - 162	
Carbon tetrachloride	1	0.025	0.0298	119	70.2 - 123	
Chlorobenzene	1	0.025	0.0265	106	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0251	100	74 - 121	
Chloroethane	1	0.025	0.0267	107	61.7 - 135	
Chloroform	1	0.025	0.0298	119	76 - 121	
Chloromethane	1	0.025	0.0253	101	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0279	112	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0279	112	78.2 - 120	
Ethylbenzene	1	0.025	0.0265	106	78.8 - 122	
Isopropylbenzene	1	0.025	0.0280	112	78.6 - 132	
m&p-Xylenes	1	0.05	0.0534	107	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0290	116	71.2 - 126	
Methylene Chloride	1	0.025	0.0263	105	70.3 - 120	
Naphthalene	1	0.025	0.0260	104	68.4 - 128	
n-Butylbenzene	1	0.025	0.0297	119	76.2 - 126	
n-Propylbenzene	1	0.025	0.0276	110	78.2 - 122	
o-Xylene	1	0.025	0.0272	109	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0289	115	74 - 131	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
sec-Butylbenzene	1	0.025	0.0285	114	74.4 - 127	
Styrene	1	0.025	0.0280	112	80.4 - 126	
Tetrachloroethene	1	0.025	0.0252	101	72.6 - 126	
Toluene	1	0.025	0.0255	102	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0287	115	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0279	111	74.3 - 123	
Trichloroethene	1	0.025	0.0257	103	77.7 - 118	
Vinyl chloride	1	0.025	0.0285	114	65.9 - 128	
Xylenes, Total	1	0.075	0.0806	108	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	% RPD	Limits Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0277	111	0.0279	112	74.2 - 124		0.67	20
1,1,1-Trichloroethane	1	0.025	0.0312	125	0.0306	122	73.2 - 123	J4	1.79	20
1,1,2,2-Tetrachloroethane	1	0.025	0.0260	104	0.0274	110	70.7 - 122		5.18	20
1,1,2-Trichloroethane	1	0.025	0.0240	96	0.0248	99.2	77.7 - 118		3.2	20
1,1-Dichloroethane	1	0.025	0.0285	114	0.0281	113	70.7 - 126		1.19	20
1,1-Dichloroethene	1	0.025	0.0293	117	0.0286	114	67.8 - 129		2.51	20
1,2,4-Trimethylbenzene	1	0.025	0.0279	112	0.0284	114	75 - 123		1.75	20
1,2-Dibromoethane	1	0.025	0.0236	94.5	0.0243	97.1	76.6 - 121		2.67	20
1,2-Dichloroethane	1	0.025	0.0263	105	0.0272	109	68.8 - 124		3.49	20
1,2-Dichloropropane	1	0.025	0.0272	109	0.0275	110	76.5 - 119		1.18	20
1,3,5-Trimethylbenzene	1	0.025	0.0280	112	0.0284	113	75.6 - 124		1.34	20
2-Butanone (MEK)	1	0.125	0.1124	89.9	0.1289	103	55 - 149		13.7	20
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1244	99.5	0.1361	109	70.5 - 133		8.96	20
Acetone	1	0.125	0.1146	91.6	0.1250	100	35.6 - 163		8.71	23.9
Benzene	1	0.025	0.0256	102	0.0257	103	74.8 - 121		0.53	20
Bromodichloromethane	1	0.025	0.0291	116	0.0289	116	75.1 - 116		0.76	20
Bromoform	1	0.025	0.0249	99.4	0.0262	105	67.5 - 130		5.2	20
Bromomethane	1	0.025	0.0320	128	0.0300	120	49.9 - 162		6.7	20
Carbon tetrachloride	1	0.025	0.0301	120	0.0298	119	70.2 - 123		0.93	20
Chlorobenzene	1	0.025	0.0261	104	0.0265	106	78.1 - 119		1.64	20
Chlorodibromomethane	1	0.025	0.0242	96.6	0.0251	100	74 - 121		3.78	20
Chloroethane	1	0.025	0.0284	114	0.0267	107	61.7 - 135		6.39	20
Chloroform	1	0.025	0.0295	118	0.0298	119	76 - 121		0.75	20
Chloromethane	1	0.025	0.0262	105	0.0253	101	61.5 - 129		3.31	20
cis-1,2-Dichloroethene	1	0.025	0.0278	111	0.0279	112	76 - 119		0.18	20
cis-1,3-Dichloropropene	1	0.025	0.0273	109	0.0279	112	78.2 - 120		2.15	20
Ethylbenzene	1	0.025	0.0263	105	0.0265	106	78.8 - 122		0.76	20
Isopropylbenzene	1	0.025	0.0279	112	0.0280	112	78.6 - 132		0.29	20
m&p-Xylenes	1	0.05	0.0534	107	0.0534	107	78.8 - 121		0.11	20
Methyl tert-butyl ether	1	0.025	0.0282	113	0.0290	116	71.2 - 126		2.8	20
Methylene Chloride	1	0.025	0.0261	104	0.0263	105	70.3 - 120		0.82	20
Naphthalene	1	0.025	0.0248	99.3	0.0260	104	68.4 - 128		4.41	20
n-Butylbenzene	1	0.025	0.0294	118	0.0297	119	76.2 - 126		1.12	20
n-Propylbenzene	1	0.025	0.0271	108	0.0276	110	78.2 - 122		1.79	20
o-Xylene	1	0.025	0.0266	106	0.0272	109	77.6 - 122		2.21	20
p-Isopropyltoluene	1	0.025	0.0286	114	0.0289	115	74 - 131		1.02	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	Limits	Qual
sec-Butylbenzene	1	0.025	0.0280	112	0.0285	114	74.4 - 127		1.79	20
Styrene	1	0.025	0.0275	110	0.0280	112	80.4 - 126		2.11	20
Tetrachloroethene	1	0.025	0.0252	101	0.0252	101	72.6 - 126		0.14	20
Toluene	1	0.025	0.0257	103	0.0255	102	79.7 - 116		0.88	20
trans-1,2-Dichloroethene	1	0.025	0.0286	115	0.0287	115	72.6 - 121		0.35	20
trans-1,3-Dichloropropene	1	0.025	0.0270	108	0.0279	111	74.3 - 123		3.13	20
Trichloroethene	1	0.025	0.0258	103	0.0257	103	77.7 - 118		0.3	20
Vinyl chloride	1	0.025	0.0297	119	0.0285	114	65.9 - 128		4.13	20
Xylenes, Total	1	0.075	0.0800	107	0.0806	108	78.7 - 121		0.81	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0262	105	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0253	101	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0301	120	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0258	103	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0255	102	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0268	107	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0256	102	75 - 123	
1,2-Dibromoethane	1	0.025	0.0255	102	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0262	105	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0259	103	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0253	101	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1409	113	55 - 149	
2-Hexanone	1	0.125	0.1573	126	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1581	126	70.5 - 133	
Acetone	1	0.125	0.1140	91.2	35.6 - 163	
Benzene	1	0.025	0.0240	96	74.8 - 121	
Bromodichloromethane	1	0.025	0.0283	113	75.1 - 116	
Bromoform	1	0.025	0.0276	110	67.5 - 130	
Bromomethane	1	0.025	0.0233	93.2	49.9 - 162	
Carbon disulfide	1	0.025	0.0246	98.3	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0250	100	70.2 - 123	
Chlorobenzene	1	0.025	0.0250	99.8	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0251	101	74 - 121	
Chloroethane	1	0.025	0.0219	87.7	61.7 - 135	
Chloroform	1	0.025	0.0269	108	76 - 121	
Chloromethane	1	0.025	0.0212	84.7	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0249	99.8	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0271	108	78.2 - 120	
Ethylbenzene	1	0.025	0.0242	96.9	78.8 - 122	
Isopropylbenzene	1	0.025	0.0249	99.7	78.6 - 132	
m&p-Xylenes	1	0.05	0.0481	96.2	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0278	111	71.2 - 126	
Methylene Chloride	1	0.025	0.0227	90.7	70.3 - 120	
Naphthalene	1	0.025	0.0317	127	68.4 - 128	
n-Butylbenzene	1	0.025	0.0269	108	76.2 - 126	
n-Propylbenzene	1	0.025	0.0246	98.5	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0243	97.1	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0257	103	74 - 131	
sec-Butylbenzene	1	0.025	0.0250	99.9	74.4 - 127	
Styrene	1	0.025	0.0259	104	80.4 - 126	
Tetrachloroethene	1	0.025	0.0240	95.9	72.6 - 126	
Toluene	1	0.025	0.0237	94.9	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0251	101	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0275	110	74.3 - 123	
Trichloroethene	1	0.025	0.0251	100	77.7 - 118	
Vinyl chloride	1	0.025	0.0253	101	65.9 - 128	
Xylenes, Total	1	0.075	0.0724	96.5	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0253	101	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0249	99.8	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0263	105	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0250	100	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0249	99.5	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0256	102	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0245	98.1	75 - 123	
1,2-Dibromoethane	1	0.025	0.0248	99.2	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0261	104	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0258	103	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0244	97.7	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1359	109	55 - 149	
2-Hexanone	1	0.125	0.1368	109	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1428	114	70.5 - 133	
Acetone	1	0.125	0.1094	87.5	35.6 - 163	
Benzene	1	0.025	0.0236	94.2	74.8 - 121	
Bromodichloromethane	1	0.025	0.0275	110	75.1 - 116	
Bromoform	1	0.025	0.0250	100	67.5 - 130	
Bromomethane	1	0.025	0.0229	91.5	49.9 - 162	
Carbon disulfide	1	0.025	0.0236	94.3	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0248	99	70.2 - 123	
Chlorobenzene	1	0.025	0.0244	97.7	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0239	95.6	74 - 121	
Chloroethane	1	0.025	0.0218	87.3	61.7 - 135	
Chloroform	1	0.025	0.0262	105	76 - 121	
Chloromethane	1	0.025	0.0200	80	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0245	98	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0270	108	78.2 - 120	
Ethylbenzene	1	0.025	0.0238	95.4	78.8 - 122	
Isopropylbenzene	1	0.025	0.0241	96.2	78.6 - 132	
m&p-Xylenes	1	0.05	0.0474	94.8	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0272	109	71.2 - 126	
Methylene Chloride	1	0.025	0.0220	88.1	70.3 - 120	
Naphthalene	1	0.025	0.0280	112	68.4 - 128	
n-Butylbenzene	1	0.025	0.0271	108	76.2 - 126	
n-Propylbenzene	1	0.025	0.0238	95.2	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0235	94	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0249	99.5	74 - 131	
sec-Butylbenzene	1	0.025	0.0243	97.1	74.4 - 127	
Styrene	1	0.025	0.0252	101	80.4 - 126	
Tetrachloroethene	1	0.025	0.0233	93	72.6 - 126	
Toluene	1	0.025	0.0233	93.2	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0242	96.8	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0277	111	74.3 - 123	
Trichloroethene	1	0.025	0.0237	94.6	77.7 - 118	
Vinyl chloride	1	0.025	0.0242	96.6	65.9 - 128	
Xylenes, Total	1	0.075	0.0709	94.5	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCS D	% Rec	Control		% Rec		Control RPD	
							Limits	Qual	% RPD	Qual	Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0262	105	0.0253	101	74.2 - 124		3.4		20	
1,1,1-Trichloroethane	1	0.025	0.0253	101	0.0249	99.8	73.2 - 123		1.54		20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0301	120	0.0263	105	70.7 - 122		13.6		20	
1,1,2-Trichloroethane	1	0.025	0.0258	103	0.0250	100	77.7 - 118		3.01		20	
1,1-Dichloroethane	1	0.025	0.0255	102	0.0249	99.5	70.7 - 126		2.35		20	
1,1-Dichloroethene	1	0.025	0.0268	107	0.0256	102	67.8 - 129		4.94		20	
1,2,4-Trimethylbenzene	1	0.025	0.0256	102	0.0245	98.1	75 - 123		4.16		20	
1,2-Dibromoethane	1	0.025	0.0255	102	0.0248	99.2	76.6 - 121		2.83		20	
1,2-Dichloroethane	1	0.025	0.0262	105	0.0261	104	68.8 - 124		0.4		20	
1,2-Dichloropropane	1	0.025	0.0259	103	0.0258	103	76.5 - 119		0.39		20	
1,3,5-Trimethylbenzene	1	0.025	0.0253	101	0.0244	97.7	75.6 - 124		3.33		20	
2-Butanone (MEK)	1	0.125	0.1409	113	0.1359	109	55 - 149		3.62		20	
2-Hexanone	1	0.125	0.1573	126	0.1368	109	65.6 - 144		13.9		20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1581	126	0.1428	114	70.5 - 133		10.2		20	
Acetone	1	0.125	0.1140	91.2	0.1094	87.5	35.6 - 163		4.14		23.9	
Benzene	1	0.025	0.0240	96	0.0236	94.2	74.8 - 121		1.93		20	
Bromodichloromethane	1	0.025	0.0283	113	0.0275	110	75.1 - 116		2.82		20	
Bromoform	1	0.025	0.0276	110	0.0250	100	67.5 - 130		9.79		20	
Bromomethane	1	0.025	0.0233	93.2	0.0229	91.5	49.9 - 162		1.82		20	
Carbon disulfide	1	0.025	0.0246	98.3	0.0236	94.3	64.6 - 140		4.11		20	
Carbon tetrachloride	1	0.025	0.0250	100	0.0248	99	70.2 - 123		1.15		20	
Chlorobenzene	1	0.025	0.0250	99.8	0.0244	97.7	78.1 - 119		2.13		20	
Chlorodibromomethane	1	0.025	0.0251	101	0.0239	95.6	74 - 121		4.96		20	
Chloroethane	1	0.025	0.0219	87.7	0.0218	87.3	61.7 - 135		0.39		20	
Chloroform	1	0.025	0.0269	108	0.0262	105	76 - 121		2.77		20	
Chloromethane	1	0.025	0.0212	84.7	0.0200	80	61.5 - 129		5.69		20	
cis-1,2-Dichloroethene	1	0.025	0.0249	99.8	0.0245	98	76 - 119		1.82		20	
cis-1,3-Dichloropropene	1	0.025	0.0271	108	0.0270	108	78.2 - 120		0.53		20	
Ethylbenzene	1	0.025	0.0242	96.9	0.0238	95.4	78.8 - 122		1.57		20	
Isopropylbenzene	1	0.025	0.0249	99.7	0.0241	96.2	78.6 - 132		3.52		20	
m&p-Xylenes	1	0.05	0.0481	96.2	0.0474	94.8	78.8 - 121		1.46		20	
Methyl tert-butyl ether	1	0.025	0.0278	111	0.0272	109	71.2 - 126		2.05		20	
Methylene Chloride	1	0.025	0.0227	90.7	0.0220	88.1	70.3 - 120		2.92		20	
Naphthalene	1	0.025	0.0317	127	0.0280	112	68.4 - 128		12.4		20	
n-Butylbenzene	1	0.025	0.0269	108	0.0271	108	76.2 - 126		0.7		20	
n-Propylbenzene	1	0.025	0.0246	98.5	0.0238	95.2	78.2 - 122		3.39		20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
o-Xylene	1	0.025	0.0243	97.1	0.0235	94	77.6 - 122		3.23	20
p-Isopropyltoluene	1	0.025	0.0257	103	0.0249	99.5	74 - 131		3.24	20
sec-Butylbenzene	1	0.025	0.0250	99.9	0.0243	97.1	74.4 - 127		2.81	20
Styrene	1	0.025	0.0259	104	0.0252	101	80.4 - 126		2.6	20
Tetrachloroethene	1	0.025	0.0240	95.9	0.0233	93	72.6 - 126		3.11	20
Toluene	1	0.025	0.0237	94.9	0.0233	93.2	79.7 - 116		1.85	20
trans-1,2-Dichloroethene	1	0.025	0.0251	101	0.0242	96.8	72.6 - 121		3.72	20
trans-1,3-Dichloropropene	1	0.025	0.0275	110	0.0277	111	74.3 - 123		0.63	20
Trichloroethene	1	0.025	0.0251	100	0.0237	94.6	77.7 - 118		5.93	20
Vinyl chloride	1	0.025	0.0253	101	0.0242	96.6	65.9 - 128		4.71	20
Xylenes, Total	1	0.075	0.0724	96.5	0.0709	94.5	78.7 - 121		2.05	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754909
Analysis Date:	11/21/2014 11:52:00 AM	Analyst:	644
Instrument ID:	VOCMS20		
Sample Numbers:	L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0282	113	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0245	97.9	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0302	121	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0274	110	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0261	104	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0228	91.1	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0280	112	75 - 123	
1,2-Dibromoethane	1	0.025	0.0281	113	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0226	90.3	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0281	113	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0281	112	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1385	111	55 - 149	
2-Hexanone	1	0.125	0.1609	129	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1532	123	70.5 - 133	
Acetone	1	0.125	0.1106	88.5	35.6 - 163	
Benzene	1	0.025	0.0252	101	74.8 - 121	
Bromodichloromethane	1	0.025	0.0248	99.1	75.1 - 116	
Bromoform	1	0.025	0.0310	124	67.5 - 130	
Bromomethane	1	0.025	0.0403	161	49.9 - 162	
Carbon disulfide	1	0.025	0.0242	96.6	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0248	99.1	70.2 - 123	
Chlorobenzene	1	0.025	0.0282	113	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0272	109	74 - 121	
Chloroethane	1	0.025	0.0223	89.1	61.7 - 135	
Chloroform	1	0.025	0.0243	97.1	76 - 121	
Chloromethane	1	0.025	0.0264	106	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0260	104	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0284	114	78.2 - 120	
Ethylbenzene	1	0.025	0.0284	113	78.8 - 122	
Isopropylbenzene	1	0.025	0.0288	115	78.6 - 132	
m&p-Xylenes	1	0.05	0.0577	115	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0256	102	71.2 - 126	
Methylene Chloride	1	0.025	0.0231	92.5	70.3 - 120	
Naphthalene	1	0.025	0.0289	116	68.4 - 128	
n-Butylbenzene	1	0.025	0.0274	109	76.2 - 126	
n-Propylbenzene	1	0.025	0.0279	112	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754909
Analysis Date:	11/21/2014 11:52:00 AM	Analyst:	644
Instrument ID:	VOCMS20		
Sample Numbers:	L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0286	114	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0310	124	74 - 131	
sec-Butylbenzene	1	0.025	0.0295	118	74.4 - 127	
Styrene	1	0.025	0.0281	112	80.4 - 126	
Tetrachloroethene	1	0.025	0.0300	120	72.6 - 126	
Toluene	1	0.025	0.0263	105	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0262	105	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0285	114	74.3 - 123	
Trichloroethene	1	0.025	0.0247	98.7	77.7 - 118	
Vinyl chloride	1	0.025	0.0237	94.8	65.9 - 128	
Xylenes, Total	1	0.075	0.0863	115	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754909
Analysis Date:	11/21/2014 11:52:00 AM	Analyst:	644
Instrument ID:	VOCMS20		
Sample Numbers:	L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0262	105	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0235	93.9	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0277	111	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0259	103	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0250	100	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0225	90.1	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0265	106	75 - 123	
1,2-Dibromoethane	1	0.025	0.0262	105	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0216	86.2	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0273	109	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0264	106	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1350	108	55 - 149	
2-Hexanone	1	0.125	0.1473	118	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1501	120	70.5 - 133	
Acetone	1	0.125	0.1036	82.9	35.6 - 163	
Benzene	1	0.025	0.0249	99.7	74.8 - 121	
Bromodichloromethane	1	0.025	0.0246	98.3	75.1 - 116	
Bromoform	1	0.025	0.0294	118	67.5 - 130	
Bromomethane	1	0.025	0.0408	163	49.9 - 162	J4
Carbon disulfide	1	0.025	0.0238	95.2	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0261	104	70.2 - 123	
Chlorobenzene	1	0.025	0.0260	104	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0259	103	74 - 121	
Chloroethane	1	0.025	0.0238	95.1	61.7 - 135	
Chloroform	1	0.025	0.0239	95.6	76 - 121	
Chloromethane	1	0.025	0.0251	100	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0257	103	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0283	113	78.2 - 120	
Ethylbenzene	1	0.025	0.0261	105	78.8 - 122	
Isopropylbenzene	1	0.025	0.0269	108	78.6 - 132	
m&p-Xylenes	1	0.05	0.0540	108	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0248	99	71.2 - 126	
Methylene Chloride	1	0.025	0.0231	92.4	70.3 - 120	
Naphthalene	1	0.025	0.0280	112	68.4 - 128	
n-Butylbenzene	1	0.025	0.0269	108	76.2 - 126	
n-Propylbenzene	1	0.025	0.0258	103	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754909
Analysis Date:	11/21/2014 11:52:00 AM	Analyst:	644
Instrument ID:	VOCMS20		
Sample Numbers:	L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0266	106	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0292	117	74 - 131	
sec-Butylbenzene	1	0.025	0.0279	112	74.4 - 127	
Styrene	1	0.025	0.0260	104	80.4 - 126	
Tetrachloroethene	1	0.025	0.0280	112	72.6 - 126	
Toluene	1	0.025	0.0259	104	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0262	105	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0278	111	74.3 - 123	
Trichloroethene	1	0.025	0.0251	101	77.7 - 118	
Vinyl chloride	1	0.025	0.0237	94.7	65.9 - 128	
Xylenes, Total	1	0.075	0.0806	107	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754909
Analysis Date:	11/21/2014 11:52:00 AM	Analyst:	644
Instrument ID:	VOCMS20		
Sample Numbers:	L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec	Qual	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0282	113	0.0262	105	74.2 - 124		7.52	20
1,1,1-Trichloroethane	1	0.025	0.0245	97.9	0.0235	93.9	73.2 - 123		4.15	20
1,1,2,2-Tetrachloroethane	1	0.025	0.0302	121	0.0277	111	70.7 - 122		8.66	20
1,1,2-Trichloroethane	1	0.025	0.0274	110	0.0259	103	77.7 - 118		5.85	20
1,1-Dichloroethane	1	0.025	0.0261	104	0.0250	100	70.7 - 126		4.05	20
1,1-Dichloroethene	1	0.025	0.0228	91.1	0.0225	90.1	67.8 - 129		1.09	20
1,2,4-Trimethylbenzene	1	0.025	0.0280	112	0.0265	106	75 - 123		5.72	20
1,2-Dibromoethane	1	0.025	0.0281	113	0.0262	105	76.6 - 121		6.96	20
1,2-Dichloroethane	1	0.025	0.0226	90.3	0.0216	86.2	68.8 - 124		4.67	20
1,2-Dichloropropane	1	0.025	0.0281	113	0.0273	109	76.5 - 119		3	20
1,3,5-Trimethylbenzene	1	0.025	0.0281	112	0.0264	106	75.6 - 124		6.15	20
2-Butanone (MEK)	1	0.125	0.1385	111	0.1350	108	55 - 149		2.51	20
2-Hexanone	1	0.125	0.1609	129	0.1473	118	65.6 - 144		8.81	20
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1532	123	0.1501	120	70.5 - 133		2.05	20
Acetone	1	0.125	0.1106	88.5	0.1036	82.9	35.6 - 163		6.53	23.9
Benzene	1	0.025	0.0252	101	0.0249	99.7	74.8 - 121		1.24	20
Bromodichloromethane	1	0.025	0.0248	99.1	0.0246	98.3	75.1 - 116		0.8	20
Bromoform	1	0.025	0.0310	124	0.0294	118	67.5 - 130		5.32	20
Bromomethane	1	0.025	0.0403	161	0.0408	163	49.9 - 162	J4	1.35	20
Carbon disulfide	1	0.025	0.0242	96.6	0.0238	95.2	64.6 - 140		1.48	20
Carbon tetrachloride	1	0.025	0.0248	99.1	0.0261	104	70.2 - 123		5.07	20
Chlorobenzene	1	0.025	0.0282	113	0.0260	104	78.1 - 119		7.91	20
Chlorodibromomethane	1	0.025	0.0272	109	0.0259	103	74 - 121		5.21	20
Chloroethane	1	0.025	0.0223	89.1	0.0238	95.1	61.7 - 135		6.46	20
Chloroform	1	0.025	0.0243	97.1	0.0239	95.6	76 - 121		1.54	20
Chloromethane	1	0.025	0.0264	106	0.0251	100	61.5 - 129		5.07	20
cis-1,2-Dichloroethene	1	0.025	0.0260	104	0.0257	103	76 - 119		1.14	20
cis-1,3-Dichloropropene	1	0.025	0.0284	114	0.0283	113	78.2 - 120		0.31	20
Ethylbenzene	1	0.025	0.0284	113	0.0261	105	78.8 - 122		8.19	20
Isopropylbenzene	1	0.025	0.0288	115	0.0269	108	78.6 - 132		6.78	20
m&p-Xylenes	1	0.05	0.0577	115	0.0540	108	78.8 - 121		6.67	20
Methyl tert-butyl ether	1	0.025	0.0256	102	0.0248	99	71.2 - 126		3.29	20
Methylene Chloride	1	0.025	0.0231	92.5	0.0231	92.4	70.3 - 120		0.04	20
Naphthalene	1	0.025	0.0289	116	0.0280	112	68.4 - 128		3.25	20
n-Butylbenzene	1	0.025	0.0274	109	0.0269	108	76.2 - 126		1.53	20
n-Propylbenzene	1	0.025	0.0279	112	0.0258	103	78.2 - 122		7.77	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754909
Analysis Date:	11/21/2014 11:52:00 AM	Analyst:	644
Instrument ID:	VOCMS20		
Sample Numbers:	L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	% RPD	Limits Qual
o-Xylene	1	0.025	0.0286	114	0.0266	106	77.6 - 122		7.28	20
p-Isopropyltoluene	1	0.025	0.0310	124	0.0292	117	74 - 131		5.81	20
sec-Butylbenzene	1	0.025	0.0295	118	0.0279	112	74.4 - 127		5.44	20
Styrene	1	0.025	0.0281	112	0.0260	104	80.4 - 126		7.67	20
Tetrachloroethene	1	0.025	0.0300	120	0.0280	112	72.6 - 126		6.62	20
Toluene	1	0.025	0.0263	105	0.0259	104	79.7 - 116		1.26	20
trans-1,2-Dichloroethene	1	0.025	0.0262	105	0.0262	105	72.6 - 121		0.03	20
trans-1,3-Dichloropropene	1	0.025	0.0285	114	0.0278	111	74.3 - 123		2.66	20
Trichloroethene	1	0.025	0.0247	98.7	0.0251	101	77.7 - 118		1.77	20
Vinyl chloride	1	0.025	0.0237	94.8	0.0237	94.7	65.9 - 128		0.16	20
Xylenes, Total	1	0.075	0.0863	115	0.0806	107	78.7 - 121		6.88	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754914
Analysis Date:	11/17/2014 2:20:00 AM	Analyst:	644
Instrument ID:	VOCMS14		
Sample Numbers:	L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0230	92.1	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0270	108	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0244	97.5	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0245	98	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0249	99.5	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0237	94.9	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0261	104	75 - 123	
1,2-Dibromoethane	1	0.025	0.0244	97.8	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0224	89.4	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0256	102	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0263	105	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1288	103	55 - 149	
2-Hexanone	1	0.125	0.1222	97.8	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1279	102	70.5 - 133	
Acetone	1	0.125	0.1147	91.7	35.6 - 163	
Benzene	1	0.025	0.0267	107	74.8 - 121	
Bromodichloromethane	1	0.025	0.0218	87	75.1 - 116	
Bromoform	1	0.025	0.0217	86.9	67.5 - 130	
Bromomethane	1	0.025	0.0270	108	49.9 - 162	
Carbon disulfide	1	0.025	0.0184	73.4	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0269	108	70.2 - 123	
Chlorobenzene	1	0.025	0.0261	104	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0214	85.7	74 - 121	
Chloroethane	1	0.025	0.0254	101	61.7 - 135	
Chloroform	1	0.025	0.0265	106	76 - 121	
Chloromethane	1	0.025	0.0253	101	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0265	106	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0229	91.4	78.2 - 120	
Ethylbenzene	1	0.025	0.0262	105	78.8 - 122	
Isopropylbenzene	1	0.025	0.0267	107	78.6 - 132	
m&p-Xylenes	1	0.05	0.0521	104	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0248	99.3	71.2 - 126	
Methylene Chloride	1	0.025	0.0249	99.6	70.3 - 120	
Naphthalene	1	0.025	0.0242	96.9	68.4 - 128	
n-Butylbenzene	1	0.025	0.0284	113	76.2 - 126	
n-Propylbenzene	1	0.025	0.0263	105	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754914
Analysis Date:	11/17/2014 2:20:00 AM	Analyst:	644
Instrument ID:	VOCMS14		
Sample Numbers:	L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0265	106	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0272	109	74 - 131	
sec-Butylbenzene	1	0.025	0.0270	108	74.4 - 127	
Styrene	1	0.025	0.0255	102	80.4 - 126	
Tetrachloroethene	1	0.025	0.0241	96.2	72.6 - 126	
Toluene	1	0.025	0.0258	103	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0257	103	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0214	85.4	74.3 - 123	
Trichloroethene	1	0.025	0.0254	101	77.7 - 118	
Vinyl chloride	1	0.025	0.0257	103	65.9 - 128	
Xylenes, Total	1	0.075	0.0786	105	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754914
Analysis Date:	11/17/2014 2:20:00 AM	Analyst:	644
Instrument ID:	VOCMS14		
Sample Numbers:	L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0244	97.7	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0278	111	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0264	106	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0258	103	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0265	106	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0242	96.7	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0279	112	75 - 123	
1,2-Dibromoethane	1	0.025	0.0258	103	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0220	87.9	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0253	101	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0288	115	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1144	91.5	55 - 149	
2-Hexanone	1	0.125	0.1221	97.7	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1185	94.8	70.5 - 133	
Acetone	1	0.125	0.1050	84	35.6 - 163	
Benzene	1	0.025	0.0274	110	74.8 - 121	
Bromodichloromethane	1	0.025	0.0221	88.3	75.1 - 116	
Bromoform	1	0.025	0.0214	85.6	67.5 - 130	
Bromomethane	1	0.025	0.0299	120	49.9 - 162	
Carbon disulfide	1	0.025	0.0189	75.8	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0273	109	70.2 - 123	
Chlorobenzene	1	0.025	0.0285	114	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0234	93.6	74 - 121	
Chloroethane	1	0.025	0.0282	113	61.7 - 135	
Chloroform	1	0.025	0.0275	110	76 - 121	
Chloromethane	1	0.025	0.0255	102	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0265	106	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0231	92.3	78.2 - 120	
Ethylbenzene	1	0.025	0.0293	117	78.8 - 122	
Isopropylbenzene	1	0.025	0.0287	115	78.6 - 132	
m&p-Xylenes	1	0.05	0.0567	113	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0249	99.8	71.2 - 126	
Methylene Chloride	1	0.025	0.0261	105	70.3 - 120	
Naphthalene	1	0.025	0.0238	95.1	68.4 - 128	
n-Butylbenzene	1	0.025	0.0291	116	76.2 - 126	
n-Propylbenzene	1	0.025	0.0286	115	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754914
Analysis Date:	11/17/2014 2:20:00 AM	Analyst:	644
Instrument ID:	VOCMS14		
Sample Numbers:	L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0286	115	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0300	120	74 - 131	
sec-Butylbenzene	1	0.025	0.0296	118	74.4 - 127	
Styrene	1	0.025	0.0282	113	80.4 - 126	
Tetrachloroethene	1	0.025	0.0261	104	72.6 - 126	
Toluene	1	0.025	0.0258	103	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0265	106	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0196	78.3	74.3 - 123	
Trichloroethene	1	0.025	0.0249	99.7	77.7 - 118	
Vinyl chloride	1	0.025	0.0282	113	65.9 - 128	
Xylenes, Total	1	0.075	0.0854	114	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754914
Analysis Date:	11/17/2014 2:20:00 AM	Analyst:	644
Instrument ID:	VOCMS14		
Sample Numbers:	L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0230	92.1	0.0244	97.7	74.2 - 124		5.93	20
1,1,1-Trichloroethane	1	0.025	0.0270	108	0.0278	111	73.2 - 123		2.87	20
1,1,2,2-Tetrachloroethane	1	0.025	0.0244	97.5	0.0264	106	70.7 - 122		7.96	20
1,1,2-Trichloroethane	1	0.025	0.0245	98	0.0258	103	77.7 - 118		4.96	20
1,1-Dichloroethane	1	0.025	0.0249	99.5	0.0265	106	70.7 - 126		6.41	20
1,1-Dichloroethene	1	0.025	0.0237	94.9	0.0242	96.7	67.8 - 129		1.84	20
1,2,4-Trimethylbenzene	1	0.025	0.0261	104	0.0279	112	75 - 123		6.71	20
1,2-Dibromoethane	1	0.025	0.0244	97.8	0.0258	103	76.6 - 121		5.44	20
1,2-Dichloroethane	1	0.025	0.0224	89.4	0.0220	87.9	68.8 - 124		1.75	20
1,2-Dichloropropane	1	0.025	0.0256	102	0.0253	101	76.5 - 119		1.04	20
1,3,5-Trimethylbenzene	1	0.025	0.0263	105	0.0288	115	75.6 - 124		9.19	20
2-Butanone (MEK)	1	0.125	0.1288	103	0.1144	91.5	55 - 149		11.8	20
2-Hexanone	1	0.125	0.1222	97.8	0.1221	97.7	65.6 - 144		0.06	20
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1279	102	0.1185	94.8	70.5 - 133		7.69	20
Acetone	1	0.125	0.1147	91.7	0.1050	84	35.6 - 163		8.82	23.9
Benzene	1	0.025	0.0267	107	0.0274	110	74.8 - 121		2.69	20
Bromodichloromethane	1	0.025	0.0218	87	0.0221	88.3	75.1 - 116		1.48	20
Bromoform	1	0.025	0.0217	86.9	0.0214	85.6	67.5 - 130		1.52	20
Bromomethane	1	0.025	0.0270	108	0.0299	120	49.9 - 162		10.1	20
Carbon disulfide	1	0.025	0.0184	73.4	0.0189	75.8	64.6 - 140		3.19	20
Carbon tetrachloride	1	0.025	0.0269	108	0.0273	109	70.2 - 123		1.2	20
Chlorobenzene	1	0.025	0.0261	104	0.0285	114	78.1 - 119		8.75	20
Chlorodibromomethane	1	0.025	0.0214	85.7	0.0234	93.6	74 - 121		8.86	20
Chloroethane	1	0.025	0.0254	101	0.0282	113	61.7 - 135		10.8	20
Chloroform	1	0.025	0.0265	106	0.0275	110	76 - 121		3.68	20
Chloromethane	1	0.025	0.0253	101	0.0255	102	61.5 - 129		0.48	20
cis-1,2-Dichloroethene	1	0.025	0.0265	106	0.0265	106	76 - 119		0.07	20
cis-1,3-Dichloropropene	1	0.025	0.0229	91.4	0.0231	92.3	78.2 - 120		1.01	20
Ethylbenzene	1	0.025	0.0262	105	0.0293	117	78.8 - 122		11.2	20
Isopropylbenzene	1	0.025	0.0267	107	0.0287	115	78.6 - 132		7.2	20
m&p-Xylenes	1	0.05	0.0521	104	0.0567	113	78.8 - 121		8.47	20
Methyl tert-butyl ether	1	0.025	0.0248	99.3	0.0249	99.8	71.2 - 126		0.45	20
Methylene Chloride	1	0.025	0.0249	99.6	0.0261	105	70.3 - 120		4.8	20
Naphthalene	1	0.025	0.0242	96.9	0.0238	95.1	68.4 - 128		1.89	20
n-Butylbenzene	1	0.025	0.0284	113	0.0291	116	76.2 - 126		2.51	20
n-Propylbenzene	1	0.025	0.0263	105	0.0286	115	78.2 - 122		8.32	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754914
Analysis Date:	11/17/2014 2:20:00 AM	Analyst:	644
Instrument ID:	VOCMS14		
Sample Numbers:	L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	% RPD	Limits Qual
o-Xylene	1	0.025	0.0265	106	0.0286	115	77.6 - 122		7.96	20
p-Isopropyltoluene	1	0.025	0.0272	109	0.0300	120	74 - 131		9.98	20
sec-Butylbenzene	1	0.025	0.0270	108	0.0296	118	74.4 - 127		9.2	20
Styrene	1	0.025	0.0255	102	0.0282	113	80.4 - 126		10.1	20
Tetrachloroethene	1	0.025	0.0241	96.2	0.0261	104	72.6 - 126		8.13	20
Toluene	1	0.025	0.0258	103	0.0258	103	79.7 - 116		0.04	20
trans-1,2-Dichloroethene	1	0.025	0.0257	103	0.0265	106	72.6 - 121		2.91	20
trans-1,3-Dichloropropene	1	0.025	0.0214	85.4	0.0196	78.3	74.3 - 123		8.69	20
Trichloroethene	1	0.025	0.0254	101	0.0249	99.7	77.7 - 118		1.75	20
Vinyl chloride	1	0.025	0.0257	103	0.0282	113	65.9 - 128		9.26	20
Xylenes, Total	1	0.075	0.0786	105	0.0854	114	78.7 - 121		8.3	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754915
Analysis Date:	11/19/2014 3:01:00 PM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0270	108	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0250	99.8	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0249	99.7	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0255	102	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0230	92.1	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0233	93.1	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0252	101	75 - 123	
1,2-Dibromoethane	1	0.025	0.0261	104	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0235	94.1	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0228	91.2	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0252	101	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1071	85.7	55 - 149	
2-Hexanone	1	0.125	0.1271	102	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1178	94.2	70.5 - 133	
Acetone	1	0.125	0.1002	80.1	35.6 - 163	
Benzene	1	0.025	0.0229	91.6	74.8 - 121	
Bromodichloromethane	1	0.025	0.0238	95.3	75.1 - 116	
Bromoform	1	0.025	0.0299	120	67.5 - 130	
Bromomethane	1	0.025	0.0315	126	49.9 - 162	
Carbon disulfide	1	0.025	0.0227	90.9	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0255	102	70.2 - 123	
Chlorobenzene	1	0.025	0.0261	104	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0276	111	74 - 121	
Chloroethane	1	0.025	0.0294	118	61.7 - 135	
Chloroform	1	0.025	0.0240	95.8	76 - 121	
Chloromethane	1	0.025	0.0184	73.6	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0239	95.5	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0243	97	78.2 - 120	
Ethylbenzene	1	0.025	0.0257	103	78.8 - 122	
Isopropylbenzene	1	0.025	0.0264	105	78.6 - 132	
m&p-Xylenes	1	0.05	0.0509	102	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0233	93	71.2 - 126	
Methylene Chloride	1	0.025	0.0234	93.7	70.3 - 120	
Naphthalene	1	0.025	0.0230	92.2	68.4 - 128	
n-Butylbenzene	1	0.025	0.0242	96.7	76.2 - 126	
n-Propylbenzene	1	0.025	0.0260	104	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754915
Analysis Date:	11/19/2014 3:01:00 PM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0250	99.8	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0279	111	74 - 131	
sec-Butylbenzene	1	0.025	0.0273	109	74.4 - 127	
Styrene	1	0.025	0.0253	101	80.4 - 126	
Tetrachloroethene	1	0.025	0.0288	115	72.6 - 126	
Toluene	1	0.025	0.0253	101	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0224	89.5	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0257	103	74.3 - 123	
Trichloroethene	1	0.025	0.0257	103	77.7 - 118	
Vinyl chloride	1	0.025	0.0197	78.9	65.9 - 128	
Xylenes, Total	1	0.075	0.0759	101	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754915
Analysis Date:	11/19/2014 3:01:00 PM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0271	109	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0258	103	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0241	96.5	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0245	98	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0231	92.4	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0240	95.9	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0249	99.8	75 - 123	
1,2-Dibromoethane	1	0.025	0.0258	103	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0228	91.3	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0226	90.6	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0249	99.8	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1039	83.1	55 - 149	
2-Hexanone	1	0.125	0.1166	93.3	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1113	89	70.5 - 133	
Acetone	1	0.125	0.0977	78.2	35.6 - 163	
Benzene	1	0.025	0.0232	93	74.8 - 121	
Bromodichloromethane	1	0.025	0.0233	93.1	75.1 - 116	
Bromoform	1	0.025	0.0279	112	67.5 - 130	
Bromomethane	1	0.025	0.0314	126	49.9 - 162	
Carbon disulfide	1	0.025	0.0229	91.4	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0265	106	70.2 - 123	
Chlorobenzene	1	0.025	0.0265	106	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0276	110	74 - 121	
Chloroethane	1	0.025	0.0301	120	61.7 - 135	
Chloroform	1	0.025	0.0241	96.3	76 - 121	
Chloromethane	1	0.025	0.0188	75.4	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0238	95.1	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0237	94.6	78.2 - 120	
Ethylbenzene	1	0.025	0.0262	105	78.8 - 122	
Isopropylbenzene	1	0.025	0.0269	108	78.6 - 132	
m&p-Xylenes	1	0.05	0.0509	102	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0226	90.3	71.2 - 126	
Methylene Chloride	1	0.025	0.0236	94.2	70.3 - 120	
Naphthalene	1	0.025	0.0221	88.3	68.4 - 128	
n-Butylbenzene	1	0.025	0.0243	97	76.2 - 126	
n-Propylbenzene	1	0.025	0.0264	106	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754915
Analysis Date:	11/19/2014 3:01:00 PM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0248	99.3	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0280	112	74 - 131	
sec-Butylbenzene	1	0.025	0.0280	112	74.4 - 127	
Styrene	1	0.025	0.0256	102	80.4 - 126	
Tetrachloroethene	1	0.025	0.0289	116	72.6 - 126	
Toluene	1	0.025	0.0258	103	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0235	94	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0248	99.3	74.3 - 123	
Trichloroethene	1	0.025	0.0262	105	77.7 - 118	
Vinyl chloride	1	0.025	0.0198	79.3	65.9 - 128	
Xylenes, Total	1	0.075	0.0758	101	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754915
Analysis Date:	11/19/2014 3:01:00 PM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec	Qual	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0270	108	0.0271	109	74.2 - 124		0.6	20
1,1,1-Trichloroethane	1	0.025	0.0250	99.8	0.0258	103	73.2 - 123		3.52	20
1,1,2,2-Tetrachloroethane	1	0.025	0.0249	99.7	0.0241	96.5	70.7 - 122		3.2	20
1,1,2-Trichloroethane	1	0.025	0.0255	102	0.0245	98	77.7 - 118		3.99	20
1,1-Dichloroethane	1	0.025	0.0230	92.1	0.0231	92.4	70.7 - 126		0.37	20
1,1-Dichloroethene	1	0.025	0.0233	93.1	0.0240	95.9	67.8 - 129		2.94	20
1,2,4-Trimethylbenzene	1	0.025	0.0252	101	0.0249	99.8	75 - 123		1.05	20
1,2-Dibromoethane	1	0.025	0.0261	104	0.0258	103	76.6 - 121		1.32	20
1,2-Dichloroethane	1	0.025	0.0235	94.1	0.0228	91.3	68.8 - 124		3	20
1,2-Dichloropropane	1	0.025	0.0228	91.2	0.0226	90.6	76.5 - 119		0.7	20
1,3,5-Trimethylbenzene	1	0.025	0.0252	101	0.0249	99.8	75.6 - 124		0.92	20
2-Butanone (MEK)	1	0.125	0.1071	85.7	0.1039	83.1	55 - 149		3.01	20
2-Hexanone	1	0.125	0.1271	102	0.1166	93.3	65.6 - 144		8.66	20
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1178	94.2	0.1113	89	70.5 - 133		5.68	20
Acetone	1	0.125	0.1002	80.1	0.0977	78.2	35.6 - 163		2.46	23.9
Benzene	1	0.025	0.0229	91.6	0.0232	93	74.8 - 121		1.47	20
Bromodichloromethane	1	0.025	0.0238	95.3	0.0233	93.1	75.1 - 116		2.34	20
Bromoform	1	0.025	0.0299	120	0.0279	112	67.5 - 130		6.86	20
Bromomethane	1	0.025	0.0315	126	0.0314	126	49.9 - 162		0.43	20
Carbon disulfide	1	0.025	0.0227	90.9	0.0229	91.4	64.6 - 140		0.63	20
Carbon tetrachloride	1	0.025	0.0255	102	0.0265	106	70.2 - 123		3.63	20
Chlorobenzene	1	0.025	0.0261	104	0.0265	106	78.1 - 119		1.28	20
Chlorodibromomethane	1	0.025	0.0276	111	0.0276	110	74 - 121		0.14	20
Chloroethane	1	0.025	0.0294	118	0.0301	120	61.7 - 135		2.1	20
Chloroform	1	0.025	0.0240	95.8	0.0241	96.3	76 - 121		0.48	20
Chloromethane	1	0.025	0.0184	73.6	0.0188	75.4	61.5 - 129		2.34	20
cis-1,2-Dichloroethene	1	0.025	0.0239	95.5	0.0238	95.1	76 - 119		0.46	20
cis-1,3-Dichloropropene	1	0.025	0.0243	97	0.0237	94.6	78.2 - 120		2.47	20
Ethylbenzene	1	0.025	0.0257	103	0.0262	105	78.8 - 122		1.59	20
Isopropylbenzene	1	0.025	0.0264	105	0.0269	108	78.6 - 132		2.12	20
m&p-Xylenes	1	0.05	0.0509	102	0.0509	102	78.8 - 121		0.06	20
Methyl tert-butyl ether	1	0.025	0.0233	93	0.0226	90.3	71.2 - 126		2.92	20
Methylene Chloride	1	0.025	0.0234	93.7	0.0236	94.2	70.3 - 120		0.6	20
Naphthalene	1	0.025	0.0230	92.2	0.0221	88.3	68.4 - 128		4.25	20
n-Butylbenzene	1	0.025	0.0242	96.7	0.0243	97	76.2 - 126		0.36	20
n-Propylbenzene	1	0.025	0.0260	104	0.0264	106	78.2 - 122		1.49	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754915
Analysis Date:	11/19/2014 3:01:00 PM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	% RPD	Limits Qual
o-Xylene	1	0.025	0.0250	99.8	0.0248	99.3	77.6 - 122		0.51	20
p-Isopropyltoluene	1	0.025	0.0279	111	0.0280	112	74 - 131		0.42	20
sec-Butylbenzene	1	0.025	0.0273	109	0.0280	112	74.4 - 127		2.35	20
Styrene	1	0.025	0.0253	101	0.0256	102	80.4 - 126		0.93	20
Tetrachloroethene	1	0.025	0.0288	115	0.0289	116	72.6 - 126		0.45	20
Toluene	1	0.025	0.0253	101	0.0258	103	79.7 - 116		1.9	20
trans-1,2-Dichloroethene	1	0.025	0.0224	89.5	0.0235	94	72.6 - 121		4.94	20
trans-1,3-Dichloropropene	1	0.025	0.0257	103	0.0248	99.3	74.3 - 123		3.57	20
Trichloroethene	1	0.025	0.0257	103	0.0262	105	77.7 - 118		1.84	20
Vinyl chloride	1	0.025	0.0197	78.9	0.0198	79.3	65.9 - 128		0.58	20
Xylenes, Total	1	0.075	0.0759	101	0.0758	101	78.7 - 121		0.13	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754916
Analysis Date:	11/22/2014 3:10:00 AM	Analyst:	644
Instrument ID:	VOCMS7		
Sample Numbers:	L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0250	100	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0226	90.3	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0233	93.2	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0243	97.3	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0222	88.8	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0231	92.4	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0234	93.6	75 - 123	
1,2-Dibromoethane	1	0.025	0.0250	99.9	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0214	85.8	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0233	93.2	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0235	93.9	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1101	88.1	55 - 149	
2-Hexanone	1	0.125	0.1154	92.4	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1128	90.3	70.5 - 133	
Acetone	1	0.125	0.1014	81.1	35.6 - 163	
Benzene	1	0.025	0.0219	87.5	74.8 - 121	
Bromodichloromethane	1	0.025	0.0229	91.4	75.1 - 116	
Bromoform	1	0.025	0.0261	104	67.5 - 130	
Bromomethane	1	0.025	0.0262	105	49.9 - 162	
Carbon disulfide	1	0.025	0.0220	88	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0251	100	70.2 - 123	
Chlorobenzene	1	0.025	0.0241	96.4	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0249	99.6	74 - 121	
Chloroethane	1	0.025	0.0225	90.1	61.7 - 135	
Chloroform	1	0.025	0.0219	87.6	76 - 121	
Chloromethane	1	0.025	0.0227	90.8	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0231	92.5	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0233	93.1	78.2 - 120	
Ethylbenzene	1	0.025	0.0236	94.6	78.8 - 122	
Isopropylbenzene	1	0.025	0.0240	96.2	78.6 - 132	
m&p-Xylenes	1	0.05	0.0451	90.2	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0219	87.7	71.2 - 126	
Methylene Chloride	1	0.025	0.0212	84.9	70.3 - 120	
Naphthalene	1	0.025	0.0221	88.4	68.4 - 128	
n-Butylbenzene	1	0.025	0.0225	90.1	76.2 - 126	
n-Propylbenzene	1	0.025	0.0234	93.4	78.2 - 122	



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754916
Analysis Date:	11/22/2014 3:10:00 AM	Analyst:	644
Instrument ID:	VOCMS7		
Sample Numbers:	L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0231	92.2	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0247	99	74 - 131	
sec-Butylbenzene	1	0.025	0.0240	96	74.4 - 127	
Styrene	1	0.025	0.0237	94.7	80.4 - 126	
Tetrachloroethene	1	0.025	0.0266	106	72.6 - 126	
Toluene	1	0.025	0.0220	88	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0236	94.3	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0254	101	74.3 - 123	
Trichloroethene	1	0.025	0.0243	97.1	77.7 - 118	
Vinyl chloride	1	0.025	0.0243	97.2	65.9 - 128	
Xylenes, Total	1	0.075	0.0681	90.8	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754916
Analysis Date:	11/22/2014 3:10:00 AM	Analyst:	644
Instrument ID:	VOCMS7		
Sample Numbers:	L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0249	99.5	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0221	88.2	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0232	92.9	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0244	97.7	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0218	87.3	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0224	89.6	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0231	92.3	75 - 123	
1,2-Dibromoethane	1	0.025	0.0249	99.5	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0213	85.1	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0228	91.3	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0230	92.1	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1071	85.7	55 - 149	
2-Hexanone	1	0.125	0.1158	92.6	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1111	88.9	70.5 - 133	
Acetone	1	0.125	0.0989	79.1	35.6 - 163	
Benzene	1	0.025	0.0213	85.1	74.8 - 121	
Bromodichloromethane	1	0.025	0.0226	90.4	75.1 - 116	
Bromoform	1	0.025	0.0261	104	67.5 - 130	
Bromomethane	1	0.025	0.0262	105	49.9 - 162	
Carbon disulfide	1	0.025	0.0215	85.9	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0221	88.5	70.2 - 123	
Chlorobenzene	1	0.025	0.0240	96.1	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0250	99.9	74 - 121	
Chloroethane	1	0.025	0.0221	88.5	61.7 - 135	
Chloroform	1	0.025	0.0215	85.9	76 - 121	
Chloromethane	1	0.025	0.0216	86.5	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0227	90.9	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0227	90.9	78.2 - 120	
Ethylbenzene	1	0.025	0.0236	94.3	78.8 - 122	
Isopropylbenzene	1	0.025	0.0240	96.1	78.6 - 132	
m&p-Xylenes	1	0.05	0.0448	89.7	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0217	86.7	71.2 - 126	
Methylene Chloride	1	0.025	0.0205	82.1	70.3 - 120	
Naphthalene	1	0.025	0.0221	88.2	68.4 - 128	
n-Butylbenzene	1	0.025	0.0221	88.3	76.2 - 126	
n-Propylbenzene	1	0.025	0.0233	93.2	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754916
Analysis Date:	11/22/2014 3:10:00 AM	Analyst:	644
Instrument ID:	VOCMS7		
Sample Numbers:	L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0228	91.1	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0244	97.6	74 - 131	
sec-Butylbenzene	1	0.025	0.0240	95.9	74.4 - 127	
Styrene	1	0.025	0.0236	94.5	80.4 - 126	
Tetrachloroethene	1	0.025	0.0263	105	72.6 - 126	
Toluene	1	0.025	0.0218	87.1	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0230	91.8	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0250	100	74.3 - 123	
Trichloroethene	1	0.025	0.0242	96.7	77.7 - 118	
Vinyl chloride	1	0.025	0.0234	93.6	65.9 - 128	
Xylenes, Total	1	0.075	0.0676	90.2	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754916
Analysis Date:	11/22/2014 3:10:00 AM	Analyst:	644
Instrument ID:	VOCMS7		
Sample Numbers:	L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		% Rec		Control RPD	
							Limits	Qual	% RPD	Qual	Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0250	100	0.0249	99.5	74.2 - 124		0.66		20	
1,1,1-Trichloroethane	1	0.025	0.0226	90.3	0.0221	88.2	73.2 - 123		2.3		20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0233	93.2	0.0232	92.9	70.7 - 122		0.3		20	
1,1,2-Trichloroethane	1	0.025	0.0243	97.3	0.0244	97.7	77.7 - 118		0.4		20	
1,1-Dichloroethane	1	0.025	0.0222	88.8	0.0218	87.3	70.7 - 126		1.66		20	
1,1-Dichloroethene	1	0.025	0.0231	92.4	0.0224	89.6	67.8 - 129		3.09		20	
1,2,4-Trimethylbenzene	1	0.025	0.0234	93.6	0.0231	92.3	75 - 123		1.43		20	
1,2-Dibromoethane	1	0.025	0.0250	99.9	0.0249	99.5	76.6 - 121		0.34		20	
1,2-Dichloroethane	1	0.025	0.0214	85.8	0.0213	85.1	68.8 - 124		0.74		20	
1,2-Dichloropropane	1	0.025	0.0233	93.2	0.0228	91.3	76.5 - 119		1.99		20	
1,3,5-Trimethylbenzene	1	0.025	0.0235	93.9	0.0230	92.1	75.6 - 124		1.85		20	
2-Butanone (MEK)	1	0.125	0.1101	88.1	0.1071	85.7	55 - 149		2.74		20	
2-Hexanone	1	0.125	0.1154	92.4	0.1158	92.6	65.6 - 144		0.29		20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1128	90.3	0.1111	88.9	70.5 - 133		1.56		20	
Acetone	1	0.125	0.1014	81.1	0.0989	79.1	35.6 - 163		2.48		23.9	
Benzene	1	0.025	0.0219	87.5	0.0213	85.1	74.8 - 121		2.81		20	
Bromodichloromethane	1	0.025	0.0229	91.4	0.0226	90.4	75.1 - 116		1.17		20	
Bromoform	1	0.025	0.0261	104	0.0261	104	67.5 - 130		0.17		20	
Bromomethane	1	0.025	0.0262	105	0.0262	105	49.9 - 162		0.26		20	
Carbon disulfide	1	0.025	0.0220	88	0.0215	85.9	64.6 - 140		2.45		20	
Carbon tetrachloride	1	0.025	0.0251	100	0.0221	88.5	70.2 - 123		12.6		20	
Chlorobenzene	1	0.025	0.0241	96.4	0.0240	96.1	78.1 - 119		0.26		20	
Chlorodibromomethane	1	0.025	0.0249	99.6	0.0250	99.9	74 - 121		0.29		20	
Chloroethane	1	0.025	0.0225	90.1	0.0221	88.5	61.7 - 135		1.85		20	
Chloroform	1	0.025	0.0219	87.6	0.0215	85.9	76 - 121		1.91		20	
Chloromethane	1	0.025	0.0227	90.8	0.0216	86.5	61.5 - 129		4.86		20	
cis-1,2-Dichloroethene	1	0.025	0.0231	92.5	0.0227	90.9	76 - 119		1.73		20	
cis-1,3-Dichloropropene	1	0.025	0.0233	93.1	0.0227	90.9	78.2 - 120		2.36		20	
Ethylbenzene	1	0.025	0.0236	94.6	0.0236	94.3	78.8 - 122		0.29		20	
Isopropylbenzene	1	0.025	0.0240	96.2	0.0240	96.1	78.6 - 132		0.14		20	
m&p-Xylenes	1	0.05	0.0451	90.2	0.0448	89.7	78.8 - 121		0.54		20	
Methyl tert-butyl ether	1	0.025	0.0219	87.7	0.0217	86.7	71.2 - 126		1.13		20	
Methylene Chloride	1	0.025	0.0212	84.9	0.0205	82.1	70.3 - 120		3.31		20	
Naphthalene	1	0.025	0.0221	88.4	0.0221	88.2	68.4 - 128		0.18		20	
n-Butylbenzene	1	0.025	0.0225	90.1	0.0221	88.3	76.2 - 126		2.02		20	
n-Propylbenzene	1	0.025	0.0234	93.4	0.0233	93.2	78.2 - 122		0.23		20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754916
Analysis Date:	11/22/2014 3:10:00 AM	Analyst:	644
Instrument ID:	VOCMS7		
Sample Numbers:	L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	% RPD	Limits Qual
o-Xylene	1	0.025	0.0231	92.2	0.0228	91.1	77.6 - 122		1.17	20
p-Isopropyltoluene	1	0.025	0.0247	99	0.0244	97.6	74 - 131		1.39	20
sec-Butylbenzene	1	0.025	0.0240	96	0.0240	95.9	74.4 - 127		0.12	20
Styrene	1	0.025	0.0237	94.7	0.0236	94.5	80.4 - 126		0.28	20
Tetrachloroethene	1	0.025	0.0266	106	0.0263	105	72.6 - 126		0.97	20
Toluene	1	0.025	0.0220	88	0.0218	87.1	79.7 - 116		1.03	20
trans-1,2-Dichloroethene	1	0.025	0.0236	94.3	0.0230	91.8	72.6 - 121		2.7	20
trans-1,3-Dichloropropene	1	0.025	0.0254	101	0.0250	100	74.3 - 123		1.46	20
Trichloroethene	1	0.025	0.0243	97.1	0.0242	96.7	77.7 - 118		0.43	20
Vinyl chloride	1	0.025	0.0243	97.2	0.0234	93.6	65.9 - 128		3.84	20
Xylenes, Total	1	0.075	0.0681	90.8	0.0676	90.2	78.7 - 121		0.75	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754917
Analysis Date:	11/19/2014 3:06:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0253	101	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0238	95.4	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0255	102	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0259	104	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0250	100	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0235	93.8	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0245	98	75 - 123	
1,2-Dibromoethane	1	0.025	0.0262	105	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0212	84.9	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0261	104	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0254	102	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1318	105	55 - 149	
2-Hexanone	1	0.125	0.1604	128	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1395	112	70.5 - 133	
Acetone	1	0.125	0.1153	92.2	35.6 - 163	
Benzene	1	0.025	0.0239	95.8	74.8 - 121	
Bromodichloromethane	1	0.025	0.0242	96.6	75.1 - 116	
Bromoform	1	0.025	0.0255	102	67.5 - 130	
Bromomethane	1	0.025	0.0157	62.8	49.9 - 162	
Carbon disulfide	1	0.025	0.0211	84.2	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0236	94.2	70.2 - 123	
Chlorobenzene	1	0.025	0.0251	100	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0272	109	74 - 121	
Chloroethane	1	0.025	0.0133	53.1	61.7 - 135	J4
Chloroform	1	0.025	0.0245	98.1	76 - 121	
Chloromethane	1	0.025	0.0227	90.9	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0246	98.4	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0261	105	78.2 - 120	
Ethylbenzene	1	0.025	0.0251	100	78.8 - 122	
Isopropylbenzene	1	0.025	0.0266	107	78.6 - 132	
m&p-Xylenes	1	0.05	0.0501	100	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0253	101	71.2 - 126	
Methylene Chloride	1	0.025	0.0237	94.8	70.3 - 120	
Naphthalene	1	0.025	0.0332	133	68.4 - 128	J4
n-Butylbenzene	1	0.025	0.0276	110	76.2 - 126	
n-Propylbenzene	1	0.025	0.0265	106	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754917
Analysis Date:	11/19/2014 3:06:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0275	110	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0247	98.9	74 - 131	
sec-Butylbenzene	1	0.025	0.0259	104	74.4 - 127	
Styrene	1	0.025	0.0266	106	80.4 - 126	
Tetrachloroethene	1	0.025	0.0238	95.3	72.6 - 126	
Toluene	1	0.025	0.0232	92.9	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0249	99.6	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0251	101	74.3 - 123	
Trichloroethene	1	0.025	0.0244	97.8	77.7 - 118	
Vinyl chloride	1	0.025	0.0209	83.6	65.9 - 128	
Xylenes, Total	1	0.075	0.0775	103	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754917
Analysis Date:	11/19/2014 3:06:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0252	101	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0229	91.7	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0261	104	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0271	108	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0246	98.4	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0230	91.9	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0250	100	75 - 123	
1,2-Dibromoethane	1	0.025	0.0263	105	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0202	80.8	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0258	103	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0259	103	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1283	103	55 - 149	
2-Hexanone	1	0.125	0.1577	126	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1390	111	70.5 - 133	
Acetone	1	0.125	0.1105	88.4	35.6 - 163	
Benzene	1	0.025	0.0229	91.5	74.8 - 121	
Bromodichloromethane	1	0.025	0.0236	94.4	75.1 - 116	
Bromoform	1	0.025	0.0251	100	67.5 - 130	
Bromomethane	1	0.025	0.0152	60.8	49.9 - 162	
Carbon disulfide	1	0.025	0.0197	78.8	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0228	91.1	70.2 - 123	
Chlorobenzene	1	0.025	0.0248	99	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0268	107	74 - 121	
Chloroethane	1	0.025	0.0132	52.8	61.7 - 135	J4
Chloroform	1	0.025	0.0233	93.1	76 - 121	
Chloromethane	1	0.025	0.0220	87.9	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0236	94.5	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0255	102	78.2 - 120	
Ethylbenzene	1	0.025	0.0249	99.7	78.8 - 122	
Isopropylbenzene	1	0.025	0.0267	107	78.6 - 132	
m&p-Xylenes	1	0.05	0.0503	101	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0247	98.6	71.2 - 126	
Methylene Chloride	1	0.025	0.0233	93.1	70.3 - 120	
Naphthalene	1	0.025	0.0315	126	68.4 - 128	
n-Butylbenzene	1	0.025	0.0275	110	76.2 - 126	
n-Propylbenzene	1	0.025	0.0266	107	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754917
Analysis Date:	11/19/2014 3:06:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0276	110	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0246	98.5	74 - 131	
sec-Butylbenzene	1	0.025	0.0260	104	74.4 - 127	
Styrene	1	0.025	0.0268	107	80.4 - 126	
Tetrachloroethene	1	0.025	0.0237	94.7	72.6 - 126	
Toluene	1	0.025	0.0225	90.1	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0242	96.9	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0245	98	74.3 - 123	
Trichloroethene	1	0.025	0.0235	94	77.7 - 118	
Vinyl chloride	1	0.025	0.0201	80.3	65.9 - 128	
Xylenes, Total	1	0.075	0.0778	104	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754917
Analysis Date:	11/19/2014 3:06:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec	Qual	Limits
1,1,1,2-Tetrachloroethane	1	0.025	0.0253	101	0.0252	101	74.2 - 124		0.16	20
1,1,1-Trichloroethane	1	0.025	0.0238	95.4	0.0229	91.7	73.2 - 123		3.9	20
1,1,2,2-Tetrachloroethane	1	0.025	0.0255	102	0.0261	104	70.7 - 122		2.45	20
1,1,2-Trichloroethane	1	0.025	0.0259	104	0.0271	108	77.7 - 118		4.26	20
1,1-Dichloroethane	1	0.025	0.0250	100	0.0246	98.4	70.7 - 126		1.65	20
1,1-Dichloroethene	1	0.025	0.0235	93.8	0.0230	91.9	67.8 - 129		2.07	20
1,2,4-Trimethylbenzene	1	0.025	0.0245	98	0.0250	100	75 - 123		2.22	20
1,2-Dibromoethane	1	0.025	0.0262	105	0.0263	105	76.6 - 121		0.25	20
1,2-Dichloroethane	1	0.025	0.0212	84.9	0.0202	80.8	68.8 - 124		4.93	20
1,2-Dichloropropane	1	0.025	0.0261	104	0.0258	103	76.5 - 119		1.1	20
1,3,5-Trimethylbenzene	1	0.025	0.0254	102	0.0259	103	75.6 - 124		1.66	20
2-Butanone (MEK)	1	0.125	0.1318	105	0.1283	103	55 - 149		2.75	20
2-Hexanone	1	0.125	0.1604	128	0.1577	126	65.6 - 144		1.67	20
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1395	112	0.1390	111	70.5 - 133		0.37	20
Acetone	1	0.125	0.1153	92.2	0.1105	88.4	35.6 - 163		4.24	23.9
Benzene	1	0.025	0.0239	95.8	0.0229	91.5	74.8 - 121		4.56	20
Bromodichloromethane	1	0.025	0.0242	96.6	0.0236	94.4	75.1 - 116		2.34	20
Bromoform	1	0.025	0.0255	102	0.0251	100	67.5 - 130		1.79	20
Bromomethane	1	0.025	0.0157	62.8	0.0152	60.8	49.9 - 162		3.17	20
Carbon disulfide	1	0.025	0.0211	84.2	0.0197	78.8	64.6 - 140		6.73	20
Carbon tetrachloride	1	0.025	0.0236	94.2	0.0228	91.1	70.2 - 123		3.36	20
Chlorobenzene	1	0.025	0.0251	100	0.0248	99	78.1 - 119		1.39	20
Chlorodibromomethane	1	0.025	0.0272	109	0.0268	107	74 - 121		1.47	20
Chloroethane	1	0.025	0.0133	53.1	0.0132	52.8	61.7 - 135	J4	0.42	20
Chloroform	1	0.025	0.0245	98.1	0.0233	93.1	76 - 121		5.28	20
Chloromethane	1	0.025	0.0227	90.9	0.0220	87.9	61.5 - 129		3.37	20
cis-1,2-Dichloroethene	1	0.025	0.0246	98.4	0.0236	94.5	76 - 119		4.06	20
cis-1,3-Dichloropropene	1	0.025	0.0261	105	0.0255	102	78.2 - 120		2.46	20
Ethylbenzene	1	0.025	0.0251	100	0.0249	99.7	78.8 - 122		0.66	20
Isopropylbenzene	1	0.025	0.0266	107	0.0267	107	78.6 - 132		0.36	20
m&p-Xylenes	1	0.05	0.0501	100	0.0503	101	78.8 - 121		0.32	20
Methyl tert-butyl ether	1	0.025	0.0253	101	0.0247	98.6	71.2 - 126		2.45	20
Methylene Chloride	1	0.025	0.0237	94.8	0.0233	93.1	70.3 - 120		1.78	20
Naphthalene	1	0.025	0.0332	133	0.0315	126	68.4 - 128	J4	5.16	20
n-Butylbenzene	1	0.025	0.0276	110	0.0275	110	76.2 - 126		0.46	20
n-Propylbenzene	1	0.025	0.0265	106	0.0266	107	78.2 - 122		0.61	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754917
Analysis Date:	11/19/2014 3:06:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	Limits	Qual
o-Xylene	1	0.025	0.0275	110	0.0276	110	77.6 - 122		0.48	20
p-Isopropyltoluene	1	0.025	0.0247	98.9	0.0246	98.5	74 - 131		0.49	20
sec-Butylbenzene	1	0.025	0.0259	104	0.0260	104	74.4 - 127		0.15	20
Styrene	1	0.025	0.0266	106	0.0268	107	80.4 - 126		0.7	20
Tetrachloroethene	1	0.025	0.0238	95.3	0.0237	94.7	72.6 - 126		0.69	20
Toluene	1	0.025	0.0232	92.9	0.0225	90.1	79.7 - 116		3.03	20
trans-1,2-Dichloroethene	1	0.025	0.0249	99.6	0.0242	96.9	72.6 - 121		2.78	20
trans-1,3-Dichloropropene	1	0.025	0.0251	101	0.0245	98	74.3 - 123		2.49	20
Trichloroethene	1	0.025	0.0244	97.8	0.0235	94	77.7 - 118		3.91	20
Vinyl chloride	1	0.025	0.0209	83.6	0.0201	80.3	65.9 - 128		4	20
Xylenes, Total	1	0.075	0.0775	103	0.0778	104	78.7 - 121		0.38	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754918
Analysis Date:	11/20/2014 5:53:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0256	102	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0254	102	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0265	106	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0250	100	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0263	105	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0273	109	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0248	99	75 - 123	
1,2-Dibromoethane	1	0.025	0.0251	100	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0277	111	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0265	106	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0245	97.9	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1420	114	55 - 149	
2-Hexanone	1	0.125	0.1370	110	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1430	114	70.5 - 133	
Acetone	1	0.125	0.1195	95.6	35.6 - 163	
Benzene	1	0.025	0.0249	99.7	74.8 - 121	
Bromodichloromethane	1	0.025	0.0286	114	75.1 - 116	
Bromoform	1	0.025	0.0255	102	67.5 - 130	
Bromomethane	1	0.025	0.0265	106	49.9 - 162	
Carbon disulfide	1	0.025	0.0257	103	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0260	104	70.2 - 123	
Chlorobenzene	1	0.025	0.0252	101	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0245	98	74 - 121	
Chloroethane	1	0.025	0.0250	99.8	61.7 - 135	
Chloroform	1	0.025	0.0279	112	76 - 121	
Chloromethane	1	0.025	0.0234	93.7	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0261	104	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0285	114	78.2 - 120	
Ethylbenzene	1	0.025	0.0241	96.6	78.8 - 122	
Isopropylbenzene	1	0.025	0.0247	98.8	78.6 - 132	
m&p-Xylenes	1	0.05	0.0488	97.6	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0294	118	71.2 - 126	
Methylene Chloride	1	0.025	0.0239	95.5	70.3 - 120	
Naphthalene	1	0.025	0.0294	118	68.4 - 128	
n-Butylbenzene	1	0.025	0.0284	113	76.2 - 126	
n-Propylbenzene	1	0.025	0.0242	97	78.2 - 122	



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754918
Analysis Date:	11/20/2014 5:53:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0239	95.4	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0250	100	74 - 131	
sec-Butylbenzene	1	0.025	0.0245	98.1	74.4 - 127	
Styrene	1	0.025	0.0253	101	80.4 - 126	
Tetrachloroethene	1	0.025	0.0245	98.1	72.6 - 126	
Toluene	1	0.025	0.0247	98.9	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0267	107	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0296	119	74.3 - 123	
Trichloroethene	1	0.025	0.0248	99.2	77.7 - 118	
Vinyl chloride	1	0.025	0.0266	106	65.9 - 128	
Xylenes, Total	1	0.075	0.0727	96.9	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754918
Analysis Date:	11/20/2014 5:53:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0258	103	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0266	106	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0259	104	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0247	98.9	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0260	104	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0262	105	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0254	101	75 - 123	
1,2-Dibromoethane	1	0.025	0.0246	98.5	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0267	107	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0257	103	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0252	101	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1209	96.7	55 - 149	
2-Hexanone	1	0.125	0.1225	98	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1278	102	70.5 - 133	
Acetone	1	0.125	0.0929	74.3	35.6 - 163	
Benzene	1	0.025	0.0247	98.9	74.8 - 121	
Bromodichloromethane	1	0.025	0.0279	112	75.1 - 116	
Bromoform	1	0.025	0.0248	99.2	67.5 - 130	
Bromomethane	1	0.025	0.0252	101	49.9 - 162	
Carbon disulfide	1	0.025	0.0263	105	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0262	105	70.2 - 123	
Chlorobenzene	1	0.025	0.0252	101	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0245	98.2	74 - 121	
Chloroethane	1	0.025	0.0234	93.6	61.7 - 135	
Chloroform	1	0.025	0.0272	109	76 - 121	
Chloromethane	1	0.025	0.0226	90.3	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0257	103	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0275	110	78.2 - 120	
Ethylbenzene	1	0.025	0.0246	98.2	78.8 - 122	
Isopropylbenzene	1	0.025	0.0251	101	78.6 - 132	
m&p-Xylenes	1	0.05	0.0488	97.5	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0284	114	71.2 - 126	
Methylene Chloride	1	0.025	0.0238	95.3	70.3 - 120	
Naphthalene	1	0.025	0.0259	103	68.4 - 128	
n-Butylbenzene	1	0.025	0.0280	112	76.2 - 126	
n-Propylbenzene	1	0.025	0.0247	98.6	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754918
Analysis Date:	11/20/2014 5:53:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0242	96.7	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0257	103	74 - 131	
sec-Butylbenzene	1	0.025	0.0251	100	74.4 - 127	
Styrene	1	0.025	0.0254	102	80.4 - 126	
Tetrachloroethene	1	0.025	0.0239	95.8	72.6 - 126	
Toluene	1	0.025	0.0239	95.8	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0259	104	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0279	112	74.3 - 123	
Trichloroethene	1	0.025	0.0250	100	77.7 - 118	
Vinyl chloride	1	0.025	0.0263	105	65.9 - 128	
Xylenes, Total	1	0.075	0.0729	97.2	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754918
Analysis Date:	11/20/2014 5:53:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		% Rec		Control RPD	
							Limits	Qual	Qual	% RPD	Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0256	102	0.0258	103	74.2 - 124			0.91	20	
1,1,1-Trichloroethane	1	0.025	0.0254	102	0.0266	106	73.2 - 123			4.56	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0265	106	0.0259	104	70.7 - 122			2.4	20	
1,1,2-Trichloroethane	1	0.025	0.0250	100	0.0247	98.9	77.7 - 118			1.25	20	
1,1-Dichloroethane	1	0.025	0.0263	105	0.0260	104	70.7 - 126			1.1	20	
1,1-Dichloroethene	1	0.025	0.0273	109	0.0262	105	67.8 - 129			4.1	20	
1,2,4-Trimethylbenzene	1	0.025	0.0248	99	0.0254	101	75 - 123			2.38	20	
1,2-Dibromoethane	1	0.025	0.0251	100	0.0246	98.5	76.6 - 121			1.76	20	
1,2-Dichloroethane	1	0.025	0.0277	111	0.0267	107	68.8 - 124			3.54	20	
1,2-Dichloropropane	1	0.025	0.0265	106	0.0257	103	76.5 - 119			3.2	20	
1,3,5-Trimethylbenzene	1	0.025	0.0245	97.9	0.0252	101	75.6 - 124			2.76	20	
2-Butanone (MEK)	1	0.125	0.1420	114	0.1209	96.7	55 - 149			16	20	
2-Hexanone	1	0.125	0.1370	110	0.1225	98	65.6 - 144			11.2	20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1430	114	0.1278	102	70.5 - 133			11.2	20	
Acetone	1	0.125	0.1195	95.6	0.0929	74.3	35.6 - 163			25.1	23.9	J3
Benzene	1	0.025	0.0249	99.7	0.0247	98.9	74.8 - 121			0.85	20	
Bromodichloromethane	1	0.025	0.0286	114	0.0279	112	75.1 - 116			2.37	20	
Bromoform	1	0.025	0.0255	102	0.0248	99.2	67.5 - 130			3.01	20	
Bromomethane	1	0.025	0.0265	106	0.0252	101	49.9 - 162			5.15	20	
Carbon disulfide	1	0.025	0.0257	103	0.0263	105	64.6 - 140			2.41	20	
Carbon tetrachloride	1	0.025	0.0260	104	0.0262	105	70.2 - 123			0.74	20	
Chlorobenzene	1	0.025	0.0252	101	0.0252	101	78.1 - 119			0.15	20	
Chlorodibromomethane	1	0.025	0.0245	98	0.0245	98.2	74 - 121			0.17	20	
Chloroethane	1	0.025	0.0250	99.8	0.0234	93.6	61.7 - 135			6.44	20	
Chloroform	1	0.025	0.0279	112	0.0272	109	76 - 121			2.34	20	
Chloromethane	1	0.025	0.0234	93.7	0.0226	90.3	61.5 - 129			3.78	20	
cis-1,2-Dichloroethene	1	0.025	0.0261	104	0.0257	103	76 - 119			1.27	20	
cis-1,3-Dichloropropene	1	0.025	0.0285	114	0.0275	110	78.2 - 120			3.79	20	
Ethylbenzene	1	0.025	0.0241	96.6	0.0246	98.2	78.8 - 122			1.69	20	
Isopropylbenzene	1	0.025	0.0247	98.8	0.0251	101	78.6 - 132			1.83	20	
m&p-Xylenes	1	0.05	0.0488	97.6	0.0488	97.5	78.8 - 121			0.1	20	
Methyl tert-butyl ether	1	0.025	0.0294	118	0.0284	114	71.2 - 126			3.45	20	
Methylene Chloride	1	0.025	0.0239	95.5	0.0238	95.3	70.3 - 120			0.19	20	
Naphthalene	1	0.025	0.0294	118	0.0259	103	68.4 - 128			12.9	20	
n-Butylbenzene	1	0.025	0.0284	113	0.0280	112	76.2 - 126			1.38	20	
n-Propylbenzene	1	0.025	0.0242	97	0.0247	98.6	78.2 - 122			1.69	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754918
Analysis Date:	11/20/2014 5:53:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	Limits	Qual
o-Xylene	1	0.025	0.0239	95.4	0.0242	96.7	77.6 - 122	1.26	20	
p-Isopropyltoluene	1	0.025	0.0250	100	0.0257	103	74 - 131	2.79	20	
sec-Butylbenzene	1	0.025	0.0245	98.1	0.0251	100	74.4 - 127	2.34	20	
Styrene	1	0.025	0.0253	101	0.0254	102	80.4 - 126	0.61	20	
Tetrachloroethene	1	0.025	0.0245	98.1	0.0239	95.8	72.6 - 126	2.37	20	
Toluene	1	0.025	0.0247	98.9	0.0239	95.8	79.7 - 116	3.21	20	
trans-1,2-Dichloroethene	1	0.025	0.0267	107	0.0259	104	72.6 - 121	2.84	20	
trans-1,3-Dichloropropene	1	0.025	0.0296	119	0.0279	112	74.3 - 123	5.99	20	
Trichloroethene	1	0.025	0.0248	99.2	0.0250	100	77.7 - 118	0.87	20	
Vinyl chloride	1	0.025	0.0266	106	0.0263	105	65.9 - 128	1.29	20	
Xylenes, Total	1	0.075	0.0727	96.9	0.0729	97.2	78.7 - 121	0.35	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754919
Analysis Date:	11/21/2014 10:42:00 PM	Analyst:	644
Instrument ID:	VOCMS13		
Sample Numbers:	L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0271	109	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0263	105	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0272	109	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0271	108	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0264	106	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0263	105	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0264	106	75 - 123	
1,2-Dibromoethane	1	0.025	0.0292	117	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0285	114	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0272	109	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0264	105	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1939	155	55 - 149	J4
2-Hexanone	1	0.125	0.1522	122	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1550	124	70.5 - 133	
Acetone	1	0.125	0.1623	130	35.6 - 163	
Benzene	1	0.025	0.0269	108	74.8 - 121	
Bromodichloromethane	1	0.025	0.0274	110	75.1 - 116	
Bromoform	1	0.025	0.0314	126	67.5 - 130	
Bromomethane	1	0.025	0.0278	111	49.9 - 162	
Carbon disulfide	1	0.025	0.0246	98.2	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0263	105	70.2 - 123	
Chlorobenzene	1	0.025	0.0273	109	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0290	116	74 - 121	
Chloroethane	1	0.025	0.0279	112	61.7 - 135	
Chloroform	1	0.025	0.0266	106	76 - 121	
Chloromethane	1	0.025	0.0250	99.8	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0265	106	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0289	115	78.2 - 120	
Ethylbenzene	1	0.025	0.0263	105	78.8 - 122	
Isopropylbenzene	1	0.025	0.0257	103	78.6 - 132	
m&p-Xylenes	1	0.05	0.0531	106	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0276	110	71.2 - 126	
Methylene Chloride	1	0.025	0.0266	107	70.3 - 120	
Naphthalene	1	0.025	0.0301	120	68.4 - 128	
n-Butylbenzene	1	0.025	0.0257	103	76.2 - 126	
n-Propylbenzene	1	0.025	0.0263	105	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754919
Analysis Date:	11/21/2014 10:42:00 PM	Analyst:	644
Instrument ID:	VOCMS13		
Sample Numbers:	L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0257	103	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0270	108	74 - 131	
sec-Butylbenzene	1	0.025	0.0264	105	74.4 - 127	
Styrene	1	0.025	0.0295	118	80.4 - 126	
Tetrachloroethene	1	0.025	0.0263	105	72.6 - 126	
Toluene	1	0.025	0.0269	108	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0274	110	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0287	115	74.3 - 123	
Trichloroethene	1	0.025	0.0281	112	77.7 - 118	
Vinyl chloride	1	0.025	0.0262	105	65.9 - 128	
Xylenes, Total	1	0.075	0.0788	105	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754919
Analysis Date:	11/21/2014 10:42:00 PM	Analyst:	644
Instrument ID:	VOCMS13		
Sample Numbers:	L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0251	100	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0252	101	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0242	96.7	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0236	94.3	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0248	99.1	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0248	99.2	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0249	99.6	75 - 123	
1,2-Dibromoethane	1	0.025	0.0259	103	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0251	101	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0252	101	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0255	102	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1263	101	55 - 149	
2-Hexanone	1	0.125	0.1269	102	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1301	104	70.5 - 133	
Acetone	1	0.125	0.1311	105	35.6 - 163	
Benzene	1	0.025	0.0252	101	74.8 - 121	
Bromodichloromethane	1	0.025	0.0248	99.2	75.1 - 116	
Bromoform	1	0.025	0.0278	111	67.5 - 130	
Bromomethane	1	0.025	0.0259	104	49.9 - 162	
Carbon disulfide	1	0.025	0.0237	94.7	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0255	102	70.2 - 123	
Chlorobenzene	1	0.025	0.0259	104	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0259	104	74 - 121	
Chloroethane	1	0.025	0.0262	105	61.7 - 135	
Chloroform	1	0.025	0.0245	97.9	76 - 121	
Chloromethane	1	0.025	0.0236	94.3	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0240	96	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0261	105	78.2 - 120	
Ethylbenzene	1	0.025	0.0253	101	78.8 - 122	
Isopropylbenzene	1	0.025	0.0248	99.1	78.6 - 132	
m&p-Xylenes	1	0.05	0.0506	101	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0238	95.2	71.2 - 126	
Methylene Chloride	1	0.025	0.0242	96.9	70.3 - 120	
Naphthalene	1	0.025	0.0266	107	68.4 - 128	
n-Butylbenzene	1	0.025	0.0254	102	76.2 - 126	
n-Propylbenzene	1	0.025	0.0256	102	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754919
Analysis Date:	11/21/2014 10:42:00 PM	Analyst:	644
Instrument ID:	VOCMS13		
Sample Numbers:	L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0244	97.5	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0259	104	74 - 131	
sec-Butylbenzene	1	0.025	0.0255	102	74.4 - 127	
Styrene	1	0.025	0.0272	109	80.4 - 126	
Tetrachloroethene	1	0.025	0.0251	100	72.6 - 126	
Toluene	1	0.025	0.0253	101	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0255	102	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0263	105	74.3 - 123	
Trichloroethene	1	0.025	0.0270	108	77.7 - 118	
Vinyl chloride	1	0.025	0.0246	98.6	65.9 - 128	
Xylenes, Total	1	0.075	0.0750	100	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754919
Analysis Date:	11/21/2014 10:42:00 PM	Analyst:	644
Instrument ID:	VOCMS13		
Sample Numbers:	L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		% Rec		Control RPD	
							Limits	Qual	Qual	% RPD	Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0271	109	0.0251	100	74.2 - 124			7.78	20	
1,1,1-Trichloroethane	1	0.025	0.0263	105	0.0252	101	73.2 - 123			4.48	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0272	109	0.0242	96.7	70.7 - 122			11.9	20	
1,1,2-Trichloroethane	1	0.025	0.0271	108	0.0236	94.3	77.7 - 118			13.8	20	
1,1-Dichloroethane	1	0.025	0.0264	106	0.0248	99.1	70.7 - 126			6.44	20	
1,1-Dichloroethene	1	0.025	0.0263	105	0.0248	99.2	67.8 - 129			5.77	20	
1,2,4-Trimethylbenzene	1	0.025	0.0264	106	0.0249	99.6	75 - 123			5.88	20	
1,2-Dibromoethane	1	0.025	0.0292	117	0.0259	103	76.6 - 121			12.1	20	
1,2-Dichloroethane	1	0.025	0.0285	114	0.0251	101	68.8 - 124			12.7	20	
1,2-Dichloropropane	1	0.025	0.0272	109	0.0252	101	76.5 - 119			7.92	20	
1,3,5-Trimethylbenzene	1	0.025	0.0264	105	0.0255	102	75.6 - 124			3.26	20	
2-Butanone (MEK)	1	0.125	0.1939	155	0.1263	101	55 - 149	J4		42.2	20	J3
2-Hexanone	1	0.125	0.1522	122	0.1269	102	65.6 - 144			18.1	20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1550	124	0.1301	104	70.5 - 133			17.4	20	
Acetone	1	0.125	0.1623	130	0.1311	105	35.6 - 163			21.3	23.9	
Benzene	1	0.025	0.0269	108	0.0252	101	74.8 - 121			6.88	20	
Bromodichloromethane	1	0.025	0.0274	110	0.0248	99.2	75.1 - 116			10.1	20	
Bromoform	1	0.025	0.0314	126	0.0278	111	67.5 - 130			12	20	
Bromomethane	1	0.025	0.0278	111	0.0259	104	49.9 - 162			7	20	
Carbon disulfide	1	0.025	0.0246	98.2	0.0237	94.7	64.6 - 140			3.67	20	
Carbon tetrachloride	1	0.025	0.0263	105	0.0255	102	70.2 - 123			3.08	20	
Chlorobenzene	1	0.025	0.0273	109	0.0259	104	78.1 - 119			5.13	20	
Chlorodibromomethane	1	0.025	0.0290	116	0.0259	104	74 - 121			11.3	20	
Chloroethane	1	0.025	0.0279	112	0.0262	105	61.7 - 135			6.18	20	
Chloroform	1	0.025	0.0266	106	0.0245	97.9	76 - 121			8.18	20	
Chloromethane	1	0.025	0.0250	99.8	0.0236	94.3	61.5 - 129			5.63	20	
cis-1,2-Dichloroethene	1	0.025	0.0265	106	0.0240	96	76 - 119			10	20	
cis-1,3-Dichloropropene	1	0.025	0.0289	115	0.0261	105	78.2 - 120			9.89	20	
Ethylbenzene	1	0.025	0.0263	105	0.0253	101	78.8 - 122			3.9	20	
Isopropylbenzene	1	0.025	0.0257	103	0.0248	99.1	78.6 - 132			3.72	20	
m&p-Xylenes	1	0.05	0.0531	106	0.0506	101	78.8 - 121			4.7	20	
Methyl tert-butyl ether	1	0.025	0.0276	110	0.0238	95.2	71.2 - 126			14.6	20	
Methylene Chloride	1	0.025	0.0266	107	0.0242	96.9	70.3 - 120			9.45	20	
Naphthalene	1	0.025	0.0301	120	0.0266	107	68.4 - 128			12	20	
n-Butylbenzene	1	0.025	0.0257	103	0.0254	102	76.2 - 126			1	20	
n-Propylbenzene	1	0.025	0.0263	105	0.0256	102	78.2 - 122			3.01	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754919
Analysis Date:	11/21/2014 10:42:00 PM	Analyst:	644
Instrument ID:	VOCMS13		
Sample Numbers:	L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	% RPD	Limits Qual
o-Xylene	1	0.025	0.0257	103	0.0244	97.5	77.6 - 122		5.34	20
p-Isopropyltoluene	1	0.025	0.0270	108	0.0259	104	74 - 131		3.92	20
sec-Butylbenzene	1	0.025	0.0264	105	0.0255	102	74.4 - 127		3.5	20
Styrene	1	0.025	0.0295	118	0.0272	109	80.4 - 126		7.96	20
Tetrachloroethene	1	0.025	0.0263	105	0.0251	100	72.6 - 126		4.44	20
Toluene	1	0.025	0.0269	108	0.0253	101	79.7 - 116		6.22	20
trans-1,2-Dichloroethene	1	0.025	0.0274	110	0.0255	102	72.6 - 121		7.03	20
trans-1,3-Dichloropropene	1	0.025	0.0287	115	0.0263	105	74.3 - 123		8.55	20
Trichloroethene	1	0.025	0.0281	112	0.0270	108	77.7 - 118		4.1	20
Vinyl chloride	1	0.025	0.0262	105	0.0246	98.6	65.9 - 128		6.04	20
Xylenes, Total	1	0.075	0.0788	105	0.0750	100	78.7 - 121		4.91	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0269	108	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0235	93.9	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0239	95.7	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0245	97.9	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0221	88.6	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0210	83.9	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0241	96.5	75 - 123	
1,2-Dibromoethane	1	0.025	0.0258	103	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0201	80.3	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0236	94.2	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0248	99.2	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.0932	74.6	55 - 149	
2-Hexanone	1	0.125	0.1173	93.8	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1098	87.8	70.5 - 133	
Acetone	1	0.125	0.0785	62.8	35.6 - 163	
Benzene	1	0.025	0.0226	90.4	74.8 - 121	
Bromodichloromethane	1	0.025	0.0226	90.6	75.1 - 116	
Bromoform	1	0.025	0.0268	107	67.5 - 130	
Bromomethane	1	0.025	0.0314	126	49.9 - 162	
Carbon disulfide	1	0.025	0.0217	86.9	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0241	96.4	70.2 - 123	
Chlorobenzene	1	0.025	0.0261	105	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0263	105	74 - 121	
Chloroethane	1	0.025	0.0265	106	61.7 - 135	
Chloroform	1	0.025	0.0223	89.4	76 - 121	
Chloromethane	1	0.025	0.0202	80.8	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0236	94.2	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0236	94.4	78.2 - 120	
Ethylbenzene	1	0.025	0.0259	104	78.8 - 122	
Isopropylbenzene	1	0.025	0.0260	104	78.6 - 132	
m&p-Xylenes	1	0.05	0.0522	104	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0211	84.5	71.2 - 126	
Methylene Chloride	1	0.025	0.0234	93.8	70.3 - 120	
Naphthalene	1	0.025	0.0203	81.2	68.4 - 128	
n-Butylbenzene	1	0.025	0.0220	88.1	76.2 - 126	
n-Propylbenzene	1	0.025	0.0259	103	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0250	100	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0271	108	74 - 131	
sec-Butylbenzene	1	0.025	0.0266	107	74.4 - 127	
Styrene	1	0.025	0.0252	101	80.4 - 126	
Tetrachloroethene	1	0.025	0.0299	120	72.6 - 126	
Toluene	1	0.025	0.0260	104	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0235	94.1	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0240	95.8	74.3 - 123	
Trichloroethene	1	0.025	0.0276	110	77.7 - 118	
Vinyl chloride	1	0.025	0.0182	72.7	65.9 - 128	
Xylenes, Total	1	0.075	0.0772	103	78.7 - 121	



YOUR LAB OF CHOICE

12065 Lebanon Rd
Mt. Juliet, TN 37122
(615) 758-5858
(800) 767-5859
Fax (615) 758-5859
Tax I.D 62-0814289
Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0279	112	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0244	97.6	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0263	105	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0273	109	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0235	93.9	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0213	85.4	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0258	103	75 - 123	
1,2-Dibromoethane	1	0.025	0.0285	114	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0221	88.5	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0256	102	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0261	104	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1061	84.9	55 - 149	
2-Hexanone	1	0.125	0.1338	107	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1248	99.9	70.5 - 133	
Acetone	1	0.125	0.0923	73.9	35.6 - 163	
Benzene	1	0.025	0.0240	95.8	74.8 - 121	
Bromodichloromethane	1	0.025	0.0248	99	75.1 - 116	
Bromoform	1	0.025	0.0290	116	67.5 - 130	
Bromomethane	1	0.025	0.0300	120	49.9 - 162	
Carbon disulfide	1	0.025	0.0234	93.5	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0249	99.6	70.2 - 123	
Chlorobenzene	1	0.025	0.0284	114	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0288	115	74 - 121	
Chloroethane	1	0.025	0.0268	107	61.7 - 135	
Chloroform	1	0.025	0.0237	94.8	76 - 121	
Chloromethane	1	0.025	0.0210	84.1	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0251	100	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0259	103	78.2 - 120	
Ethylbenzene	1	0.025	0.0273	109	78.8 - 122	
Isopropylbenzene	1	0.025	0.0274	110	78.6 - 132	
m&p-Xylenes	1	0.05	0.0550	110	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0234	93.4	71.2 - 126	
Methylene Chloride	1	0.025	0.0246	98.5	70.3 - 120	
Naphthalene	1	0.025	0.0229	91.6	68.4 - 128	
n-Butylbenzene	1	0.025	0.0233	93.4	76.2 - 126	
n-Propylbenzene	1	0.025	0.0270	108	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0264	106	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0280	112	74 - 131	
sec-Butylbenzene	1	0.025	0.0279	112	74.4 - 127	
Styrene	1	0.025	0.0276	111	80.4 - 126	
Tetrachloroethene	1	0.025	0.0310	124	72.6 - 126	
Toluene	1	0.025	0.0274	110	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0249	99.4	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0273	109	74.3 - 123	
Trichloroethene	1	0.025	0.0286	114	77.7 - 118	
Vinyl chloride	1	0.025	0.0191	76.4	65.9 - 128	
Xylenes, Total	1	0.075	0.0814	109	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG755340
Collection Date:	11/11/2014	Analyst:	611
Analysis Date:	11/22/2014 12:20:00 AM		
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec	Qual	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0269	108	0.0279	112	74.2 - 124	3.54	20	
1,1,1-Trichloroethane	1	0.025	0.0235	93.9	0.0244	97.6	73.2 - 123	3.8	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0239	95.7	0.0263	105	70.7 - 122	9.59	20	
1,1,2-Trichloroethane	1	0.025	0.0245	97.9	0.0273	109	77.7 - 118	10.8	20	
1,1-Dichloroethane	1	0.025	0.0221	88.6	0.0235	93.9	70.7 - 126	5.83	20	
1,1-Dichloroethene	1	0.025	0.0210	83.9	0.0213	85.4	67.8 - 129	1.71	20	
1,2,4-Trimethylbenzene	1	0.025	0.0241	96.5	0.0258	103	75 - 123	6.69	20	
1,2-Dibromoethane	1	0.025	0.0258	103	0.0285	114	76.6 - 121	10.1	20	
1,2-Dichloroethane	1	0.025	0.0201	80.3	0.0221	88.5	68.8 - 124	9.73	20	
1,2-Dichloropropane	1	0.025	0.0236	94.2	0.0256	102	76.5 - 119	8.25	20	
1,3,5-Trimethylbenzene	1	0.025	0.0248	99.2	0.0261	104	75.6 - 124	5.17	20	
2-Butanone (MEK)	1	0.125	0.0932	74.6	0.1061	84.9	55 - 149	13	20	
2-Hexanone	1	0.125	0.1173	93.8	0.1338	107	65.6 - 144	13.2	20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1098	87.8	0.1248	99.9	70.5 - 133	12.8	20	
Acetone	1	0.125	0.0785	62.8	0.0923	73.9	35.6 - 163	16.2	23.9	
Benzene	1	0.025	0.0226	90.4	0.0240	95.8	74.8 - 121	5.76	20	
Bromodichloromethane	1	0.025	0.0226	90.6	0.0248	99	75.1 - 116	8.92	20	
Bromoform	1	0.025	0.0268	107	0.0290	116	67.5 - 130	8.18	20	
Bromomethane	1	0.025	0.0314	126	0.0300	120	49.9 - 162	4.75	20	
Carbon disulfide	1	0.025	0.0217	86.9	0.0234	93.5	64.6 - 140	7.25	20	
Carbon tetrachloride	1	0.025	0.0241	96.4	0.0249	99.6	70.2 - 123	3.3	20	
Chlorobenzene	1	0.025	0.0261	105	0.0284	114	78.1 - 119	8.44	20	
Chlorodibromomethane	1	0.025	0.0263	105	0.0288	115	74 - 121	9.08	20	
Chloroethane	1	0.025	0.0265	106	0.0268	107	61.7 - 135	1.24	20	
Chloroform	1	0.025	0.0223	89.4	0.0237	94.8	76 - 121	5.9	20	
Chloromethane	1	0.025	0.0202	80.8	0.0210	84.1	61.5 - 129	3.91	20	
cis-1,2-Dichloroethene	1	0.025	0.0236	94.2	0.0251	100	76 - 119	6.41	20	
cis-1,3-Dichloropropene	1	0.025	0.0236	94.4	0.0259	103	78.2 - 120	9.17	20	
Ethylbenzene	1	0.025	0.0259	104	0.0273	109	78.8 - 122	5.15	20	
Isopropylbenzene	1	0.025	0.0260	104	0.0274	110	78.6 - 132	5.28	20	
m&p-Xylenes	1	0.05	0.0522	104	0.0550	110	78.8 - 121	5.32	20	
Methyl tert-butyl ether	1	0.025	0.0211	84.5	0.0234	93.4	71.2 - 126	10	20	
Methylene Chloride	1	0.025	0.0234	93.8	0.0246	98.5	70.3 - 120	4.92	20	
Naphthalene	1	0.025	0.0203	81.2	0.0229	91.6	68.4 - 128	12	20	
n-Butylbenzene	1	0.025	0.0220	88.1	0.0233	93.4	76.2 - 126	5.82	20	
n-Propylbenzene	1	0.025	0.0259	103	0.0270	108	78.2 - 122	4.4	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	Limits	Qual
o-Xylene	1	0.025	0.0250	100	0.0264	106	77.6 - 122		5.29	20
p-Isopropyltoluene	1	0.025	0.0271	108	0.0280	112	74 - 131		3.17	20
sec-Butylbenzene	1	0.025	0.0266	107	0.0279	112	74.4 - 127		4.77	20
Styrene	1	0.025	0.0252	101	0.0276	111	80.4 - 126		9.36	20
Tetrachloroethene	1	0.025	0.0299	120	0.0310	124	72.6 - 126		3.54	20
Toluene	1	0.025	0.0260	104	0.0274	110	79.7 - 116		5.43	20
trans-1,2-Dichloroethene	1	0.025	0.0235	94.1	0.0249	99.4	72.6 - 121		5.49	20
trans-1,3-Dichloropropene	1	0.025	0.0240	95.8	0.0273	109	74.3 - 123		13.1	20
Trichloroethene	1	0.025	0.0276	110	0.0286	114	77.7 - 118		3.54	20
Vinyl chloride	1	0.025	0.0182	72.7	0.0191	76.4	65.9 - 128		4.95	20
Xylenes, Total	1	0.075	0.0772	103	0.0814	109	78.7 - 121		5.31	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755673
Analysis Date:	11/21/2014 8:51:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-106, -107, -110, -115		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0272	109	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0243	97	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0253	101	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0252	101	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0230	92	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0218	87.3	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0256	103	75 - 123	
1,2-Dibromoethane	1	0.025	0.0265	106	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0207	82.8	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0242	96.9	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0253	101	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.0991	79.3	55 - 149	
2-Hexanone	1	0.125	0.1238	99	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1175	94	70.5 - 133	
Acetone	1	0.125	0.0881	70.5	35.6 - 163	
Benzene	1	0.025	0.0231	92.3	74.8 - 121	
Bromodichloromethane	1	0.025	0.0230	92.2	75.1 - 116	
Bromoform	1	0.025	0.0276	110	67.5 - 130	
Bromomethane	1	0.025	0.0359	144	49.9 - 162	
Carbon disulfide	1	0.025	0.0257	103	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0249	99.8	70.2 - 123	
Chlorobenzene	1	0.025	0.0267	107	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0268	107	74 - 121	
Chloroethane	1	0.025	0.0291	116	61.7 - 135	
Chloroform	1	0.025	0.0231	92.3	76 - 121	
Chloromethane	1	0.025	0.0213	85.1	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0243	97.4	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0239	95.6	78.2 - 120	
Ethylbenzene	1	0.025	0.0263	105	78.8 - 122	
Isopropylbenzene	1	0.025	0.0269	107	78.6 - 132	
m&p-Xylenes	1	0.05	0.0532	106	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0230	92	71.2 - 126	
Methylene Chloride	1	0.025	0.0252	101	70.3 - 120	
Naphthalene	1	0.025	0.0226	90.6	68.4 - 128	
n-Butylbenzene	1	0.025	0.0234	93.7	76.2 - 126	
n-Propylbenzene	1	0.025	0.0261	104	78.2 - 122	



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG755673**
 Analysis Date: 11/21/2014 8:51:00 AM Analyst: 611
 Instrument ID: VOCMS25
 Sample Numbers: L733743-106, -107, -110, -115

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0260	104	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0283	113	74 - 131	
sec-Butylbenzene	1	0.025	0.0276	111	74.4 - 127	
Styrene	1	0.025	0.0257	103	80.4 - 126	
Tetrachloroethene	1	0.025	0.0308	123	72.6 - 126	
Toluene	1	0.025	0.0265	106	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0248	99.1	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0247	98.9	74.3 - 123	
Trichloroethene	1	0.025	0.0278	111	77.7 - 118	
Vinyl chloride	1	0.025	0.0194	77.5	65.9 - 128	
Xylenes, Total	1	0.075	0.0792	106	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755673
Analysis Date:	11/21/2014 8:51:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-106, -107, -110, -115		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0249	99.6	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0211	84.6	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0231	92.2	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0237	94.7	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0202	80.8	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0192	76.9	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0232	92.9	75 - 123	
1,2-Dibromoethane	1	0.025	0.0247	98.7	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0195	77.9	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0223	89.2	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0239	95.4	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.0909	72.7	55 - 149	
2-Hexanone	1	0.125	0.1134	90.8	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1080	86.4	70.5 - 133	
Acetone	1	0.125	0.0802	64.1	35.6 - 163	
Benzene	1	0.025	0.0209	83.7	74.8 - 121	
Bromodichloromethane	1	0.025	0.0216	86.6	75.1 - 116	
Bromoform	1	0.025	0.0256	102	67.5 - 130	
Bromomethane	1	0.025	0.0267	107	49.9 - 162	
Carbon disulfide	1	0.025	0.0218	87.3	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0215	85.8	70.2 - 123	
Chlorobenzene	1	0.025	0.0249	99.7	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0250	100	74 - 121	
Chloroethane	1	0.025	0.0245	97.9	61.7 - 135	
Chloroform	1	0.025	0.0205	82.1	76 - 121	
Chloromethane	1	0.025	0.0189	75.7	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0220	88	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0229	91.5	78.2 - 120	
Ethylbenzene	1	0.025	0.0242	96.9	78.8 - 122	
Isopropylbenzene	1	0.025	0.0240	96.1	78.6 - 132	
m&p-Xylenes	1	0.05	0.0486	97.1	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0202	80.6	71.2 - 126	
Methylene Chloride	1	0.025	0.0220	87.9	70.3 - 120	
Naphthalene	1	0.025	0.0202	80.7	68.4 - 128	
n-Butylbenzene	1	0.025	0.0216	86.3	76.2 - 126	
n-Propylbenzene	1	0.025	0.0243	97.3	78.2 - 122	



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755673
Analysis Date:	11/21/2014 8:51:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-106, -107, -110, -115		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0237	94.9	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0265	106	74 - 131	
sec-Butylbenzene	1	0.025	0.0247	98.8	74.4 - 127	
Styrene	1	0.025	0.0241	96.5	80.4 - 126	
Tetrachloroethene	1	0.025	0.0280	112	72.6 - 126	
Toluene	1	0.025	0.0249	99.4	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0212	84.7	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0242	96.7	74.3 - 123	
Trichloroethene	1	0.025	0.0250	99.8	77.7 - 118	
Vinyl chloride	1	0.025	0.0173	69.4	65.9 - 128	
Xylenes, Total	1	0.075	0.0723	96.4	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755673
Analysis Date:	11/21/2014 8:51:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-106, -107, -110, -115		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCS D	% Rec	Control		% Rec		Control RPD	
							Limits	Qual	% RPD	Qual	Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0272	109	0.0249	99.6	74.2 - 124		8.84		20	
1,1,1-Trichloroethane	1	0.025	0.0243	97	0.0211	84.6	73.2 - 123		13.7		20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0253	101	0.0231	92.2	70.7 - 122		9.3		20	
1,1,2-Trichloroethane	1	0.025	0.0252	101	0.0237	94.7	77.7 - 118		6.12		20	
1,1-Dichloroethane	1	0.025	0.0230	92	0.0202	80.8	70.7 - 126		12.9		20	
1,1-Dichloroethene	1	0.025	0.0218	87.3	0.0192	76.9	67.8 - 129		12.7		20	
1,2,4-Trimethylbenzene	1	0.025	0.0256	103	0.0232	92.9	75 - 123		9.91		20	
1,2-Dibromoethane	1	0.025	0.0265	106	0.0247	98.7	76.6 - 121		7.09		20	
1,2-Dichloroethane	1	0.025	0.0207	82.8	0.0195	77.9	68.8 - 124		6.14		20	
1,2-Dichloropropane	1	0.025	0.0242	96.9	0.0223	89.2	76.5 - 119		8.19		20	
1,3,5-Trimethylbenzene	1	0.025	0.0253	101	0.0239	95.4	75.6 - 124		5.91		20	
2-Butanone (MEK)	1	0.125	0.0991	79.3	0.0909	72.7	55 - 149		8.7		20	
2-Hexanone	1	0.125	0.1238	99	0.1134	90.8	65.6 - 144		8.69		20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1175	94	0.1080	86.4	70.5 - 133		8.51		20	
Acetone	1	0.125	0.0881	70.5	0.0802	64.1	35.6 - 163		9.48		23.9	
Benzene	1	0.025	0.0231	92.3	0.0209	83.7	74.8 - 121		9.71		20	
Bromodichloromethane	1	0.025	0.0230	92.2	0.0216	86.6	75.1 - 116		6.27		20	
Bromoform	1	0.025	0.0276	110	0.0256	102	67.5 - 130		7.51		20	
Bromomethane	1	0.025	0.0359	144	0.0267	107	49.9 - 162		29.7		20	
Carbon disulfide	1	0.025	0.0257	103	0.0218	87.3	64.6 - 140		16.4		20	
Carbon tetrachloride	1	0.025	0.0249	99.8	0.0215	85.8	70.2 - 123		15		20	
Chlorobenzene	1	0.025	0.0267	107	0.0249	99.7	78.1 - 119		6.87		20	
Chlorodibromomethane	1	0.025	0.0268	107	0.0250	100	74 - 121		6.7		20	
Chloroethane	1	0.025	0.0291	116	0.0245	97.9	61.7 - 135		17.2		20	
Chloroform	1	0.025	0.0231	92.3	0.0205	82.1	76 - 121		11.7		20	
Chloromethane	1	0.025	0.0213	85.1	0.0189	75.7	61.5 - 129		11.6		20	
cis-1,2-Dichloroethene	1	0.025	0.0243	97.4	0.0220	88	76 - 119		10		20	
cis-1,3-Dichloropropene	1	0.025	0.0239	95.6	0.0229	91.5	78.2 - 120		4.35		20	
Ethylbenzene	1	0.025	0.0263	105	0.0242	96.9	78.8 - 122		8.34		20	
Isopropylbenzene	1	0.025	0.0269	107	0.0240	96.1	78.6 - 132		11.1		20	
m&p-Xylenes	1	0.05	0.0532	106	0.0486	97.1	78.8 - 121		9.05		20	
Methyl tert-butyl ether	1	0.025	0.0230	92	0.0202	80.6	71.2 - 126		13.2		20	
Methylene Chloride	1	0.025	0.0252	101	0.0220	87.9	70.3 - 120		13.6		20	
Naphthalene	1	0.025	0.0226	90.6	0.0202	80.7	68.4 - 128		11.5		20	
n-Butylbenzene	1	0.025	0.0234	93.7	0.0216	86.3	76.2 - 126		8.23		20	
n-Propylbenzene	1	0.025	0.0261	104	0.0243	97.3	78.2 - 122		7		20	

J3



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755673
Analysis Date:	11/21/2014 8:51:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-106, -107, -110, -115		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	% RPD	Limits Qual
o-Xylene	1	0.025	0.0260	104	0.0237	94.9	77.6 - 122		9.32	20
p-Isopropyltoluene	1	0.025	0.0283	113	0.0265	106	74 - 131		6.67	20
sec-Butylbenzene	1	0.025	0.0276	111	0.0247	98.8	74.4 - 127		11.2	20
Styrene	1	0.025	0.0257	103	0.0241	96.5	80.4 - 126		6.41	20
Tetrachloroethene	1	0.025	0.0308	123	0.0280	112	72.6 - 126		9.66	20
Toluene	1	0.025	0.0265	106	0.0249	99.4	79.7 - 116		6.3	20
trans-1,2-Dichloroethene	1	0.025	0.0248	99.1	0.0212	84.7	72.6 - 121		15.7	20
trans-1,3-Dichloropropene	1	0.025	0.0247	98.9	0.0242	96.7	74.3 - 123		2.26	20
Trichloroethene	1	0.025	0.0278	111	0.0250	99.8	77.7 - 118		10.7	20
Vinyl chloride	1	0.025	0.0194	77.5	0.0173	69.4	65.9 - 128		11	20
Xylenes, Total	1	0.075	0.0792	106	0.0723	96.4	78.7 - 121		9.14	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755736
Analysis Date:	11/20/2014 4:24:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0267	107	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0273	109	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0269	108	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0280	112	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0284	114	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0247	98.7	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0260	104	75 - 123	
1,2-Dibromoethane	1	0.025	0.0253	101	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0264	106	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0281	112	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0270	108	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1529	122	55 - 149	
2-Hexanone	1	0.125	0.1373	110	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1320	106	70.5 - 133	
Acetone	1	0.125	0.1274	102	35.6 - 163	
Benzene	1	0.025	0.0282	113	74.8 - 121	
Bromodichloromethane	1	0.025	0.0252	101	75.1 - 116	
Bromoform	1	0.025	0.0246	98.3	67.5 - 130	
Bromomethane	1	0.025	0.0439	176	49.9 - 162	J4
Carbon disulfide	1	0.025	0.0263	105	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0257	103	70.2 - 123	
Chlorobenzene	1	0.025	0.0263	105	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0251	100	74 - 121	
Chloroethane	1	0.025	0.0295	118	61.7 - 135	
Chloroform	1	0.025	0.0280	112	76 - 121	
Chloromethane	1	0.025	0.0264	106	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0268	107	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0268	107	78.2 - 120	
Ethylbenzene	1	0.025	0.0265	106	78.8 - 122	
Isopropylbenzene	1	0.025	0.0266	106	78.6 - 132	
m&p-Xylenes	1	0.05	0.0521	104	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0288	115	71.2 - 126	
Methylene Chloride	1	0.025	0.0285	114	70.3 - 120	
Naphthalene	1	0.025	0.0284	113	68.4 - 128	
n-Butylbenzene	1	0.025	0.0279	112	76.2 - 126	
n-Propylbenzene	1	0.025	0.0270	108	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755736
Analysis Date:	11/20/2014 4:24:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0270	108	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0268	107	74 - 131	
sec-Butylbenzene	1	0.025	0.0274	109	74.4 - 127	
Styrene	1	0.025	0.0271	108	80.4 - 126	
Tetrachloroethene	1	0.025	0.0262	105	72.6 - 126	
Toluene	1	0.025	0.0260	104	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0269	108	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0243	97.3	74.3 - 123	
Trichloroethene	1	0.025	0.0279	111	77.7 - 118	
Vinyl chloride	1	0.025	0.0270	108	65.9 - 128	
Xylenes, Total	1	0.075	0.0791	105	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755736
Analysis Date:	11/20/2014 4:24:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0256	102	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0255	102	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0265	106	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0267	107	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0267	107	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0233	93	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0249	99.4	75 - 123	
1,2-Dibromoethane	1	0.025	0.0251	100	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0247	98.7	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0271	108	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0259	104	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1408	113	55 - 149	
2-Hexanone	1	0.125	0.1344	108	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1254	100	70.5 - 133	
Acetone	1	0.125	0.1173	93.8	35.6 - 163	
Benzene	1	0.025	0.0270	108	74.8 - 121	
Bromodichloromethane	1	0.025	0.0242	96.7	75.1 - 116	
Bromoform	1	0.025	0.0231	92.5	67.5 - 130	
Bromomethane	1	0.025	0.0412	165	49.9 - 162	J4
Carbon disulfide	1	0.025	0.0249	99.4	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0246	98.4	70.2 - 123	
Chlorobenzene	1	0.025	0.0260	104	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0247	98.7	74 - 121	
Chloroethane	1	0.025	0.0283	113	61.7 - 135	
Chloroform	1	0.025	0.0264	106	76 - 121	
Chloromethane	1	0.025	0.0246	98.3	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0246	98.6	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0257	103	78.2 - 120	
Ethylbenzene	1	0.025	0.0260	104	78.8 - 122	
Isopropylbenzene	1	0.025	0.0256	102	78.6 - 132	
m&p-Xylenes	1	0.05	0.0508	102	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0265	106	71.2 - 126	
Methylene Chloride	1	0.025	0.0266	106	70.3 - 120	
Naphthalene	1	0.025	0.0287	115	68.4 - 128	
n-Butylbenzene	1	0.025	0.0275	110	76.2 - 126	
n-Propylbenzene	1	0.025	0.0259	104	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755736
Analysis Date:	11/20/2014 4:24:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0265	106	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0258	103	74 - 131	
sec-Butylbenzene	1	0.025	0.0261	104	74.4 - 127	
Styrene	1	0.025	0.0261	105	80.4 - 126	
Tetrachloroethene	1	0.025	0.0254	102	72.6 - 126	
Toluene	1	0.025	0.0249	99.5	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0256	102	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0230	92	74.3 - 123	
Trichloroethene	1	0.025	0.0258	103	77.7 - 118	
Vinyl chloride	1	0.025	0.0251	101	65.9 - 128	
Xylenes, Total	1	0.075	0.0772	103	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755736
Analysis Date:	11/20/2014 4:24:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec	Qual	% RPD
1,1,1,2-Tetrachloroethane	1	0.025	0.0267	107	0.0256	102	74.2 - 124		4.25	20
1,1,1-Trichloroethane	1	0.025	0.0273	109	0.0255	102	73.2 - 123		6.88	20
1,1,2,2-Tetrachloroethane	1	0.025	0.0269	108	0.0265	106	70.7 - 122		1.67	20
1,1,2-Trichloroethane	1	0.025	0.0280	112	0.0267	107	77.7 - 118		4.57	20
1,1-Dichloroethane	1	0.025	0.0284	114	0.0267	107	70.7 - 126		6.06	20
1,1-Dichloroethene	1	0.025	0.0247	98.7	0.0233	93	67.8 - 129		5.95	20
1,2,4-Trimethylbenzene	1	0.025	0.0260	104	0.0249	99.4	75 - 123		4.44	20
1,2-Dibromoethane	1	0.025	0.0253	101	0.0251	100	76.6 - 121		0.86	20
1,2-Dichloroethane	1	0.025	0.0264	106	0.0247	98.7	68.8 - 124		6.84	20
1,2-Dichloropropane	1	0.025	0.0281	112	0.0271	108	76.5 - 119		3.64	20
1,3,5-Trimethylbenzene	1	0.025	0.0270	108	0.0259	104	75.6 - 124		4.2	20
2-Butanone (MEK)	1	0.125	0.1529	122	0.1408	113	55 - 149		8.22	20
2-Hexanone	1	0.125	0.1373	110	0.1344	108	65.6 - 144		2.16	20
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1320	106	0.1254	100	70.5 - 133		5.16	20
Acetone	1	0.125	0.1274	102	0.1173	93.8	35.6 - 163		8.22	23.9
Benzene	1	0.025	0.0282	113	0.0270	108	74.8 - 121		4.34	20
Bromodichloromethane	1	0.025	0.0252	101	0.0242	96.7	75.1 - 116		4.19	20
Bromoform	1	0.025	0.0246	98.3	0.0231	92.5	67.5 - 130		6.05	20
Bromomethane	1	0.025	0.0439	176	0.0412	165	49.9 - 162	J4	6.27	20
Carbon disulfide	1	0.025	0.0263	105	0.0249	99.4	64.6 - 140		5.73	20
Carbon tetrachloride	1	0.025	0.0257	103	0.0246	98.4	70.2 - 123		4.5	20
Chlorobenzene	1	0.025	0.0263	105	0.0260	104	78.1 - 119		1.08	20
Chlorodibromomethane	1	0.025	0.0251	100	0.0247	98.7	74 - 121		1.79	20
Chloroethane	1	0.025	0.0295	118	0.0283	113	61.7 - 135		4.19	20
Chloroform	1	0.025	0.0280	112	0.0264	106	76 - 121		5.79	20
Chloromethane	1	0.025	0.0264	106	0.0246	98.3	61.5 - 129		7.1	20
cis-1,2-Dichloroethene	1	0.025	0.0268	107	0.0246	98.6	76 - 119		8.27	20
cis-1,3-Dichloropropene	1	0.025	0.0268	107	0.0257	103	78.2 - 120		4.04	20
Ethylbenzene	1	0.025	0.0265	106	0.0260	104	78.8 - 122		1.9	20
Isopropylbenzene	1	0.025	0.0266	106	0.0256	102	78.6 - 132		4	20
m&p-Xylenes	1	0.05	0.0521	104	0.0508	102	78.8 - 121		2.6	20
Methyl tert-butyl ether	1	0.025	0.0288	115	0.0265	106	71.2 - 126		8.59	20
Methylene Chloride	1	0.025	0.0285	114	0.0266	106	70.3 - 120		6.94	20
Naphthalene	1	0.025	0.0284	113	0.0287	115	68.4 - 128		1.09	20
n-Butylbenzene	1	0.025	0.0279	112	0.0275	110	76.2 - 126		1.57	20
n-Propylbenzene	1	0.025	0.0270	108	0.0259	104	78.2 - 122		3.9	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755736
Analysis Date:	11/20/2014 4:24:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	% RPD	Limits Qual
o-Xylene	1	0.025	0.0270	108	0.0265	106	77.6 - 122		1.97	20
p-Isopropyltoluene	1	0.025	0.0268	107	0.0258	103	74 - 131		4	20
sec-Butylbenzene	1	0.025	0.0274	109	0.0261	104	74.4 - 127		4.83	20
Styrene	1	0.025	0.0271	108	0.0261	105	80.4 - 126		3.63	20
Tetrachloroethene	1	0.025	0.0262	105	0.0254	102	72.6 - 126		3.02	20
Toluene	1	0.025	0.0260	104	0.0249	99.5	79.7 - 116		4.39	20
trans-1,2-Dichloroethene	1	0.025	0.0269	108	0.0256	102	72.6 - 121		4.93	20
trans-1,3-Dichloropropene	1	0.025	0.0243	97.3	0.0230	92	74.3 - 123		5.52	20
Trichloroethene	1	0.025	0.0279	111	0.0258	103	77.7 - 118		7.64	20
Vinyl chloride	1	0.025	0.0270	108	0.0251	101	65.9 - 128		7.11	20
Xylenes, Total	1	0.075	0.0791	105	0.0772	103	78.7 - 121		2.38	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0289	116	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0288	115	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0265	106	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0270	108	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0269	108	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0275	110	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0279	112	75 - 123	
1,2-Dibromoethane	1	0.025	0.0257	103	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0250	100	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0266	107	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0286	114	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.0971	77.7	55 - 149	
2-Hexanone	1	0.125	0.1120	89.6	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1163	93.1	70.5 - 133	
Acetone	1	0.125	0.1032	82.5	35.6 - 163	
Benzene	1	0.025	0.0266	106	74.8 - 121	
Bromodichloromethane	1	0.025	0.0258	103	75.1 - 116	
Bromoform	1	0.025	0.0270	108	67.5 - 130	
Bromomethane	1	0.025	0.0302	121	49.9 - 162	
Carbon disulfide	1	0.025	0.0277	111	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0269	107	70.2 - 123	
Chlorobenzene	1	0.025	0.0282	113	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0262	105	74 - 121	
Chloroethane	1	0.025	0.0298	119	61.7 - 135	
Chloroform	1	0.025	0.0274	110	76 - 121	
Chloromethane	1	0.025	0.0242	96.8	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0274	110	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0259	104	78.2 - 120	
Ethylbenzene	1	0.025	0.0275	110	78.8 - 122	
Isopropylbenzene	1	0.025	0.0287	115	78.6 - 132	
m&p-Xylenes	1	0.05	0.0558	112	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0278	111	71.2 - 126	
Methylene Chloride	1	0.025	0.0273	109	70.3 - 120	
Naphthalene	1	0.025	0.0249	99.8	68.4 - 128	
n-Butylbenzene	1	0.025	0.0250	100	76.2 - 126	
n-Propylbenzene	1	0.025	0.0279	112	78.2 - 122	



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0274	110	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0286	114	74 - 131	
sec-Butylbenzene	1	0.025	0.0291	116	74.4 - 127	
Styrene	1	0.025	0.0277	111	80.4 - 126	
Tetrachloroethene	1	0.025	0.0300	120	72.6 - 126	
Toluene	1	0.025	0.0261	104	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0289	116	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0242	97	74.3 - 123	
Trichloroethene	1	0.025	0.0291	116	77.7 - 118	
Vinyl chloride	1	0.025	0.0280	112	65.9 - 128	
Xylenes, Total	1	0.075	0.0832	111	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0248	99.3	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0254	102	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0237	94.6	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0241	96.3	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0225	90	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0229	91.5	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0239	95.5	75 - 123	
1,2-Dibromoethane	1	0.025	0.0233	93.3	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0222	88.7	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0231	92.5	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0246	98.6	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.0885	70.8	55 - 149	
2-Hexanone	1	0.125	0.1023	81.9	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1031	82.5	70.5 - 133	
Acetone	1	0.125	0.0904	72.3	35.6 - 163	
Benzene	1	0.025	0.0229	91.5	74.8 - 121	
Bromodichloromethane	1	0.025	0.0224	89.5	75.1 - 116	
Bromoform	1	0.025	0.0238	95.1	67.5 - 130	
Bromomethane	1	0.025	0.0251	100	49.9 - 162	
Carbon disulfide	1	0.025	0.0232	93	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0230	92	70.2 - 123	
Chlorobenzene	1	0.025	0.0248	99.1	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0232	92.7	74 - 121	
Chloroethane	1	0.025	0.0250	99.9	61.7 - 135	
Chloroform	1	0.025	0.0233	93.1	76 - 121	
Chloromethane	1	0.025	0.0199	79.8	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0234	93.4	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0227	90.7	78.2 - 120	
Ethylbenzene	1	0.025	0.0242	96.8	78.8 - 122	
Isopropylbenzene	1	0.025	0.0250	100	78.6 - 132	
m&p-Xylenes	1	0.05	0.0491	98.1	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0236	94.5	71.2 - 126	
Methylene Chloride	1	0.025	0.0226	90.5	70.3 - 120	
Naphthalene	1	0.025	0.0210	84	68.4 - 128	
n-Butylbenzene	1	0.025	0.0214	85.6	76.2 - 126	
n-Propylbenzene	1	0.025	0.0243	97.1	78.2 - 122	



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0236	94.3	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0248	99.2	74 - 131	
sec-Butylbenzene	1	0.025	0.0249	99.6	74.4 - 127	
Styrene	1	0.025	0.0242	96.8	80.4 - 126	
Tetrachloroethene	1	0.025	0.0269	108	72.6 - 126	
Toluene	1	0.025	0.0228	91.2	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0244	97.5	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0225	90	74.3 - 123	
Trichloroethene	1	0.025	0.0252	101	77.7 - 118	
Vinyl chloride	1	0.025	0.0233	93.3	65.9 - 128	
Xylenes, Total	1	0.075	0.0726	96.9	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0289	116	0.0248	99.3	74.2 - 124	15.1	20	
1,1,1-Trichloroethane	1	0.025	0.0288	115	0.0254	102	73.2 - 123	12.5	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0265	106	0.0237	94.6	70.7 - 122	11.3	20	
1,1,2-Trichloroethane	1	0.025	0.0270	108	0.0241	96.3	77.7 - 118	11.4	20	
1,1-Dichloroethane	1	0.025	0.0269	108	0.0225	90	70.7 - 126	17.8	20	
1,1-Dichloroethene	1	0.025	0.0275	110	0.0229	91.5	67.8 - 129	18.2	20	
1,2,4-Trimethylbenzene	1	0.025	0.0279	112	0.0239	95.5	75 - 123	15.8	20	
1,2-Dibromoethane	1	0.025	0.0257	103	0.0233	93.3	76.6 - 121	9.61	20	
1,2-Dichloroethane	1	0.025	0.0250	100	0.0222	88.7	68.8 - 124	11.9	20	
1,2-Dichloropropane	1	0.025	0.0266	107	0.0231	92.5	76.5 - 119	14.1	20	
1,3,5-Trimethylbenzene	1	0.025	0.0286	114	0.0246	98.6	75.6 - 124	14.8	20	
2-Butanone (MEK)	1	0.125	0.0971	77.7	0.0885	70.8	55 - 149	9.28	20	
2-Hexanone	1	0.125	0.1120	89.6	0.1023	81.9	65.6 - 144	8.99	20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1163	93.1	0.1031	82.5	70.5 - 133	12.1	20	
Acetone	1	0.125	0.1032	82.5	0.0904	72.3	35.6 - 163	13.2	23.9	
Benzene	1	0.025	0.0266	106	0.0229	91.5	74.8 - 121	15.1	20	
Bromodichloromethane	1	0.025	0.0258	103	0.0224	89.5	75.1 - 116	14.2	20	
Bromoform	1	0.025	0.0270	108	0.0238	95.1	67.5 - 130	12.8	20	
Bromomethane	1	0.025	0.0302	121	0.0251	100	49.9 - 162	18.6	20	
Carbon disulfide	1	0.025	0.0277	111	0.0232	93	64.6 - 140	17.3	20	
Carbon tetrachloride	1	0.025	0.0269	107	0.0230	92	70.2 - 123	15.5	20	
Chlorobenzene	1	0.025	0.0282	113	0.0248	99.1	78.1 - 119	13.1	20	
Chlorodibromomethane	1	0.025	0.0262	105	0.0232	92.7	74 - 121	12.4	20	
Chloroethane	1	0.025	0.0298	119	0.0250	99.9	61.7 - 135	17.7	20	
Chloroform	1	0.025	0.0274	110	0.0233	93.1	76 - 121	16.2	20	
Chloromethane	1	0.025	0.0242	96.8	0.0199	79.8	61.5 - 129	19.3	20	
cis-1,2-Dichloroethene	1	0.025	0.0274	110	0.0234	93.4	76 - 119	16.1	20	
cis-1,3-Dichloropropene	1	0.025	0.0259	104	0.0227	90.7	78.2 - 120	13.2	20	
Ethylbenzene	1	0.025	0.0275	110	0.0242	96.8	78.8 - 122	12.7	20	
Isopropylbenzene	1	0.025	0.0287	115	0.0250	100	78.6 - 132	13.8	20	
m&p-Xylenes	1	0.05	0.0558	112	0.0491	98.1	78.8 - 121	12.9	20	
Methyl tert-butyl ether	1	0.025	0.0278	111	0.0236	94.5	71.2 - 126	16.3	20	
Methylene Chloride	1	0.025	0.0273	109	0.0226	90.5	70.3 - 120	18.6	20	
Naphthalene	1	0.025	0.0249	99.8	0.0210	84	68.4 - 128	17.1	20	
n-Butylbenzene	1	0.025	0.0250	100	0.0214	85.6	76.2 - 126	15.7	20	
n-Propylbenzene	1	0.025	0.0279	112	0.0243	97.1	78.2 - 122	14	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	% RPD	Limits Qual
o-Xylene	1	0.025	0.0274	110	0.0236	94.3	77.6 - 122		15	20
p-Isopropyltoluene	1	0.025	0.0286	114	0.0248	99.2	74 - 131		14.3	20
sec-Butylbenzene	1	0.025	0.0291	116	0.0249	99.6	74.4 - 127		15.5	20
Styrene	1	0.025	0.0277	111	0.0242	96.8	80.4 - 126		13.6	20
Tetrachloroethene	1	0.025	0.0300	120	0.0269	108	72.6 - 126		10.8	20
Toluene	1	0.025	0.0261	104	0.0228	91.2	79.7 - 116		13.4	20
trans-1,2-Dichloroethene	1	0.025	0.0289	116	0.0244	97.5	72.6 - 121		17.1	20
trans-1,3-Dichloropropene	1	0.025	0.0242	97	0.0225	90	74.3 - 123		7.5	20
Trichloroethene	1	0.025	0.0291	116	0.0252	101	77.7 - 118		14.4	20
Vinyl chloride	1	0.025	0.0280	112	0.0233	93.3	65.9 - 128		18.3	20
Xylenes, Total	1	0.075	0.0832	111	0.0726	96.9	78.7 - 121		13.6	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0252	101	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0214	85.7	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0232	92.9	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0251	101	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0223	89	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0225	90.1	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0239	95.7	75 - 123	
1,2-Dibromoethane	1	0.025	0.0252	101	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0188	75	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0245	98	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0239	95.7	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1053	84.3	55 - 149	
2-Hexanone	1	0.125	0.1325	106	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1157	92.6	70.5 - 133	
Acetone	1	0.125	0.0963	77	35.6 - 163	
Benzene	1	0.025	0.0220	88.1	74.8 - 121	
Bromodichloromethane	1	0.025	0.0221	88.3	75.1 - 116	
Bromoform	1	0.025	0.0240	95.9	67.5 - 130	
Bromomethane	1	0.025	0.0138	55.3	49.9 - 162	
Carbon disulfide	1	0.025	0.0255	102	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0214	85.5	70.2 - 123	
Chlorobenzene	1	0.025	0.0243	97.3	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0258	103	74 - 121	
Chloroethane	1	0.025	0.0129	51.8	61.7 - 135	J4
Chloroform	1	0.025	0.0214	85.6	76 - 121	
Chloromethane	1	0.025	0.0230	91.9	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0228	91.2	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0239	95.8	78.2 - 120	
Ethylbenzene	1	0.025	0.0244	97.7	78.8 - 122	
Isopropylbenzene	1	0.025	0.0253	101	78.6 - 132	
m&p-Xylenes	1	0.05	0.0491	98.2	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0227	90.9	71.2 - 126	
Methylene Chloride	1	0.025	0.0228	91.3	70.3 - 120	
Naphthalene	1	0.025	0.0288	115	68.4 - 128	
n-Butylbenzene	1	0.025	0.0259	103	76.2 - 126	
n-Propylbenzene	1	0.025	0.0251	100	78.2 - 122	



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0264	105	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0236	94.5	74 - 131	
sec-Butylbenzene	1	0.025	0.0242	97	74.4 - 127	
Styrene	1	0.025	0.0260	104	80.4 - 126	
Tetrachloroethene	1	0.025	0.0243	97	72.6 - 126	
Toluene	1	0.025	0.0220	88.1	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0241	96.3	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0242	96.9	74.3 - 123	
Trichloroethene	1	0.025	0.0238	95.1	77.7 - 118	
Vinyl chloride	1	0.025	0.0202	80.7	65.9 - 128	
Xylenes, Total	1	0.075	0.0755	101	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0279	112	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0244	97.7	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0268	107	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0284	114	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0248	99.1	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0253	101	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0267	107	75 - 123	
1,2-Dibromoethane	1	0.025	0.0279	112	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0207	82.6	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0265	106	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0280	112	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1174	93.9	55 - 149	
2-Hexanone	1	0.125	0.1511	121	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1255	100	70.5 - 133	
Acetone	1	0.125	0.1075	86	35.6 - 163	
Benzene	1	0.025	0.0245	98.1	74.8 - 121	
Bromodichloromethane	1	0.025	0.0243	97.1	75.1 - 116	
Bromoform	1	0.025	0.0274	110	67.5 - 130	
Bromomethane	1	0.025	0.0157	62.7	49.9 - 162	
Carbon disulfide	1	0.025	0.0284	114	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0244	97.5	70.2 - 123	
Chlorobenzene	1	0.025	0.0272	109	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0290	116	74 - 121	
Chloroethane	1	0.025	0.0144	57.6	61.7 - 135	J4
Chloroform	1	0.025	0.0239	95.5	76 - 121	
Chloromethane	1	0.025	0.0254	101	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0253	101	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0268	107	78.2 - 120	
Ethylbenzene	1	0.025	0.0275	110	78.8 - 122	
Isopropylbenzene	1	0.025	0.0291	116	78.6 - 132	
m&p-Xylenes	1	0.05	0.0554	111	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0250	100	71.2 - 126	
Methylene Chloride	1	0.025	0.0251	100	70.3 - 120	
Naphthalene	1	0.025	0.0317	127	68.4 - 128	
n-Butylbenzene	1	0.025	0.0287	115	76.2 - 126	
n-Propylbenzene	1	0.025	0.0282	113	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0295	118	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0269	107	74 - 131	
sec-Butylbenzene	1	0.025	0.0278	111	74.4 - 127	
Styrene	1	0.025	0.0290	116	80.4 - 126	
Tetrachloroethene	1	0.025	0.0278	111	72.6 - 126	
Toluene	1	0.025	0.0244	97.6	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0270	108	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0265	106	74.3 - 123	
Trichloroethene	1	0.025	0.0256	103	77.7 - 118	
Vinyl chloride	1	0.025	0.0230	92.1	65.9 - 128	
Xylenes, Total	1	0.075	0.0849	113	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec	Qual	RPD
1,1,1,2-Tetrachloroethane	1	0.025	0.0252	101	0.0279	112	74.2 - 124		10.2	20
1,1,1-Trichloroethane	1	0.025	0.0214	85.7	0.0244	97.7	73.2 - 123		13.1	20
1,1,2,2-Tetrachloroethane	1	0.025	0.0232	92.9	0.0268	107	70.7 - 122		14.4	20
1,1,2-Trichloroethane	1	0.025	0.0251	101	0.0284	114	77.7 - 118		12.4	20
1,1-Dichloroethane	1	0.025	0.0223	89	0.0248	99.1	70.7 - 126		10.7	20
1,1-Dichloroethene	1	0.025	0.0225	90.1	0.0253	101	67.8 - 129		11.7	20
1,2,4-Trimethylbenzene	1	0.025	0.0239	95.7	0.0267	107	75 - 123		11	20
1,2-Dibromoethane	1	0.025	0.0252	101	0.0279	112	76.6 - 121		10.3	20
1,2-Dichloroethane	1	0.025	0.0188	75	0.0207	82.6	68.8 - 124		9.67	20
1,2-Dichloropropane	1	0.025	0.0245	98	0.0265	106	76.5 - 119		7.73	20
1,3,5-Trimethylbenzene	1	0.025	0.0239	95.7	0.0280	112	75.6 - 124		15.8	20
2-Butanone (MEK)	1	0.125	0.1053	84.3	0.1174	93.9	55 - 149		10.8	20
2-Hexanone	1	0.125	0.1325	106	0.1511	121	65.6 - 144		13.1	20
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1157	92.6	0.1255	100	70.5 - 133		8.14	20
Acetone	1	0.125	0.0963	77	0.1075	86	35.6 - 163		11	23.9
Benzene	1	0.025	0.0220	88.1	0.0245	98.1	74.8 - 121		10.8	20
Bromodichloromethane	1	0.025	0.0221	88.3	0.0243	97.1	75.1 - 116		9.51	20
Bromoform	1	0.025	0.0240	95.9	0.0274	110	67.5 - 130		13.3	20
Bromomethane	1	0.025	0.0138	55.3	0.0157	62.7	49.9 - 162		12.5	20
Carbon disulfide	1	0.025	0.0255	102	0.0284	114	64.6 - 140		10.8	20
Carbon tetrachloride	1	0.025	0.0214	85.5	0.0244	97.5	70.2 - 123		13	20
Chlorobenzene	1	0.025	0.0243	97.3	0.0272	109	78.1 - 119		11.2	20
Chlorodibromomethane	1	0.025	0.0258	103	0.0290	116	74 - 121		11.7	20
Chloroethane	1	0.025	0.0129	51.8	0.0144	57.6	61.7 - 135	J4	10.6	20
Chloroform	1	0.025	0.0214	85.6	0.0239	95.5	76 - 121		11	20
Chloromethane	1	0.025	0.0230	91.9	0.0254	101	61.5 - 129		9.89	20
cis-1,2-Dichloroethene	1	0.025	0.0228	91.2	0.0253	101	76 - 119		10.5	20
cis-1,3-Dichloropropene	1	0.025	0.0239	95.8	0.0268	107	78.2 - 120		11.2	20
Ethylbenzene	1	0.025	0.0244	97.7	0.0275	110	78.8 - 122		11.7	20
Isopropylbenzene	1	0.025	0.0253	101	0.0291	116	78.6 - 132		13.8	20
m&p-Xylenes	1	0.05	0.0491	98.2	0.0554	111	78.8 - 121		12.1	20
Methyl tert-butyl ether	1	0.025	0.0227	90.9	0.0250	100	71.2 - 126		9.55	20
Methylene Chloride	1	0.025	0.0228	91.3	0.0251	100	70.3 - 120		9.52	20
Naphthalene	1	0.025	0.0288	115	0.0317	127	68.4 - 128		9.48	20
n-Butylbenzene	1	0.025	0.0259	103	0.0287	115	76.2 - 126		10.5	20
n-Propylbenzene	1	0.025	0.0251	100	0.0282	113	78.2 - 122		11.7	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	% RPD	Limits Qual
o-Xylene	1	0.025	0.0264	105	0.0295	118	77.6 - 122		11.2	20
p-Isopropyltoluene	1	0.025	0.0236	94.5	0.0269	107	74 - 131		12.9	20
sec-Butylbenzene	1	0.025	0.0242	97	0.0278	111	74.4 - 127		13.6	20
Styrene	1	0.025	0.0260	104	0.0290	116	80.4 - 126		11	20
Tetrachloroethene	1	0.025	0.0243	97	0.0278	111	72.6 - 126		13.5	20
Toluene	1	0.025	0.0220	88.1	0.0244	97.6	79.7 - 116		10.2	20
trans-1,2-Dichloroethene	1	0.025	0.0241	96.3	0.0270	108	72.6 - 121		11.6	20
trans-1,3-Dichloropropene	1	0.025	0.0242	96.9	0.0265	106	74.3 - 123		8.98	20
Trichloroethene	1	0.025	0.0238	95.1	0.0256	103	77.7 - 118		7.47	20
Vinyl chloride	1	0.025	0.0202	80.7	0.0230	92.1	65.9 - 128		13.2	20
Xylenes, Total	1	0.075	0.0755	101	0.0849	113	78.7 - 121		11.8	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B	Matrix:	Water - mg/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG756371
Collection Date:	11/11/2014	Analyst:	644
Analysis Date:	11/23/2014 6:59:00 PM		
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0225	90.1	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0293	117	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0258	103	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0246	98.4	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0302	121	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0325	130	67.8 - 129	J4
1,2,4-Trimethylbenzene	1	0.025	0.0241	96.4	75 - 123	
1,2-Dibromoethane	1	0.025	0.0249	99.4	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0303	121	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0274	110	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0245	97.9	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.2310	185	55 - 149	J4
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1478	118	70.5 - 133	
Acetone	1	0.125	0.2983	239	35.6 - 163	J4
Benzene	1	0.025	0.0280	112	74.8 - 121	
Bromodichloromethane	1	0.025	0.0270	108	75.1 - 116	
Bromoform	1	0.025	0.0212	84.7	67.5 - 130	
Bromomethane	1	0.025	0.0268	107	49.9 - 162	
Carbon tetrachloride	1	0.025	0.0282	113	70.2 - 123	
Chlorobenzene	1	0.025	0.0240	96.1	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0244	97.4	74 - 121	
Chloroethane	1	0.025	0.0281	112	61.7 - 135	
Chloroform	1	0.025	0.0294	118	76 - 121	
Chloromethane	1	0.025	0.0260	104	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0280	112	76 - 119	
Ethylbenzene	1	0.025	0.0246	98.5	78.8 - 122	
Isopropylbenzene	1	0.025	0.0241	96.6	78.6 - 132	
m&p-Xylenes	1	0.05	0.0481	96.2	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0283	113	71.2 - 126	
Methylene Chloride	1	0.025	0.0261	105	70.3 - 120	
Naphthalene	1	0.025	0.0260	104	68.4 - 128	
n-Butylbenzene	1	0.025	0.0295	118	76.2 - 126	
n-Propylbenzene	1	0.025	0.0254	102	78.2 - 122	
o-Xylene	1	0.025	0.0241	96.6	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0235	94	74 - 131	
sec-Butylbenzene	1	0.025	0.0244	97.6	74.4 - 127	



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Styrene	1	0.025	0.0245	98.1	80.4 - 126	
Tetrachloroethene	1	0.025	0.0219	87.6	72.6 - 126	
Toluene	1	0.025	0.0271	109	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0268	107	72.6 - 121	
Trichloroethene	1	0.025	0.0243	97.1	77.7 - 118	
Vinyl chloride	1	0.025	0.0281	112	65.9 - 128	
Xylenes, Total	1	0.075	0.0723	96.3	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0227	90.7	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0291	116	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0247	98.8	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0240	96.2	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0297	119	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0311	124	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0235	93.9	75 - 123	
1,2-Dibromoethane	1	0.025	0.0236	94.6	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0296	118	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0268	107	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0238	95.3	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.2148	172	55 - 149	J4
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1420	114	70.5 - 133	
Acetone	1	0.125	0.2689	215	35.6 - 163	J4
Benzene	1	0.025	0.0278	111	74.8 - 121	
Bromodichloromethane	1	0.025	0.0269	108	75.1 - 116	
Bromoform	1	0.025	0.0205	82.1	67.5 - 130	
Bromomethane	1	0.025	0.0265	106	49.9 - 162	
Carbon tetrachloride	1	0.025	0.0276	110	70.2 - 123	
Chlorobenzene	1	0.025	0.0234	93.6	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0234	93.4	74 - 121	
Chloroethane	1	0.025	0.0282	113	61.7 - 135	
Chloroform	1	0.025	0.0291	116	76 - 121	
Chloromethane	1	0.025	0.0252	101	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0275	110	76 - 119	
Ethylbenzene	1	0.025	0.0237	94.8	78.8 - 122	
Isopropylbenzene	1	0.025	0.0238	95.3	78.6 - 132	
m&p-Xylenes	1	0.05	0.0472	94.4	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0280	112	71.2 - 126	
Methylene Chloride	1	0.025	0.0253	101	70.3 - 120	
Naphthalene	1	0.025	0.0261	104	68.4 - 128	
n-Butylbenzene	1	0.025	0.0290	116	76.2 - 126	
n-Propylbenzene	1	0.025	0.0248	99.1	78.2 - 122	
o-Xylene	1	0.025	0.0233	93.4	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0231	92.2	74 - 131	
sec-Butylbenzene	1	0.025	0.0240	96.2	74.4 - 127	



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Styrene	1	0.025	0.0235	94.2	80.4 - 126	
Tetrachloroethene	1	0.025	0.0217	86.7	72.6 - 126	
Toluene	1	0.025	0.0266	106	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0257	103	72.6 - 121	
Trichloroethene	1	0.025	0.0242	96.6	77.7 - 118	
Vinyl chloride	1	0.025	0.0277	111	65.9 - 128	
Xylenes, Total	1	0.075	0.0705	94.1	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCS D	% Rec	Control		Control RPD	
							Limits	% Rec Qual	Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0225	90.1	0.0227	90.7	74.2 - 124		0.65	20
1,1,1-Trichloroethane	1	0.025	0.0293	117	0.0291	116	73.2 - 123		0.69	20
1,1,2,2-Tetrachloroethane	1	0.025	0.0258	103	0.0247	98.8	70.7 - 122		4.16	20
1,1,2-Trichloroethane	1	0.025	0.0246	98.4	0.0240	96.2	77.7 - 118		2.24	20
1,1-Dichloroethane	1	0.025	0.0302	121	0.0297	119	70.7 - 126		1.89	20
1,1-Dichloroethene	1	0.025	0.0325	130	0.0311	124	67.8 - 129	J4	4.39	20
1,2,4-Trimethylbenzene	1	0.025	0.0241	96.4	0.0235	93.9	75 - 123		2.65	20
1,2-Dibromoethane	1	0.025	0.0249	99.4	0.0236	94.6	76.6 - 121		4.98	20
1,2-Dichloroethane	1	0.025	0.0303	121	0.0296	118	68.8 - 124		2.42	20
1,2-Dichloropropane	1	0.025	0.0274	110	0.0268	107	76.5 - 119		2.22	20
1,3,5-Trimethylbenzene	1	0.025	0.0245	97.9	0.0238	95.3	75.6 - 124		2.68	20
2-Butanone (MEK)	1	0.125	0.2310	185	0.2148	172	55 - 149	J4	7.26	20
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1478	118	0.1420	114	70.5 - 133		4.01	20
Acetone	1	0.125	0.2983	239	0.2689	215	35.6 - 163	J4	10.4	23.9
Benzene	1	0.025	0.0280	112	0.0278	111	74.8 - 121		0.88	20
Bromodichloromethane	1	0.025	0.0270	108	0.0269	108	75.1 - 116		0.58	20
Bromoform	1	0.025	0.0212	84.7	0.0205	82.1	67.5 - 130		3.18	20
Bromomethane	1	0.025	0.0268	107	0.0265	106	49.9 - 162		1.05	20
Carbon tetrachloride	1	0.025	0.0282	113	0.0276	110	70.2 - 123		2.25	20
Chlorobenzene	1	0.025	0.0240	96.1	0.0234	93.6	78.1 - 119		2.61	20
Chlorodibromomethane	1	0.025	0.0244	97.4	0.0234	93.4	74 - 121		4.2	20
Chloroethane	1	0.025	0.0281	112	0.0282	113	61.7 - 135		0.39	20
Chloroform	1	0.025	0.0294	118	0.0291	116	76 - 121		1.01	20
Chloromethane	1	0.025	0.0260	104	0.0252	101	61.5 - 129		3.06	20
cis-1,2-Dichloroethene	1	0.025	0.0280	112	0.0275	110	76 - 119		1.82	20
Ethylbenzene	1	0.025	0.0246	98.5	0.0237	94.8	78.8 - 122		3.85	20
Isopropylbenzene	1	0.025	0.0241	96.6	0.0238	95.3	78.6 - 132		1.26	20
m&p-Xylenes	1	0.05	0.0481	96.2	0.0472	94.4	78.8 - 121		1.91	20
Methyl tert-butyl ether	1	0.025	0.0283	113	0.0280	112	71.2 - 126		0.96	20
Methylene Chloride	1	0.025	0.0261	105	0.0253	101	70.3 - 120		3.27	20
Naphthalene	1	0.025	0.0260	104	0.0261	104	68.4 - 128		0.38	20
n-Butylbenzene	1	0.025	0.0295	118	0.0290	116	76.2 - 126		1.89	20
n-Propylbenzene	1	0.025	0.0254	102	0.0248	99.1	78.2 - 122		2.51	20
o-Xylene	1	0.025	0.0241	96.6	0.0233	93.4	77.6 - 122		3.38	20
p-Isopropyltoluene	1	0.025	0.0235	94	0.0231	92.2	74 - 131		1.95	20
sec-Butylbenzene	1	0.025	0.0244	97.6	0.0240	96.2	74.4 - 127		1.5	20



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
Styrene	1	0.025	0.0245	98.1	0.0235	94.2	80.4 - 126		4.15	20
Tetrachloroethene	1	0.025	0.0219	87.6	0.0217	86.7	72.6 - 126		1.08	20
Toluene	1	0.025	0.0271	109	0.0266	106	79.7 - 116		1.94	20
trans-1,2-Dichloroethene	1	0.025	0.0268	107	0.0257	103	72.6 - 121		4.34	20
Trichloroethene	1	0.025	0.0243	97.1	0.0242	96.6	77.7 - 118		0.5	20
Vinyl chloride	1	0.025	0.0281	112	0.0277	111	65.9 - 128		1.43	20
Xylenes, Total	1	0.075	0.0723	96.3	0.0705	94.1	78.7 - 121		2.4	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0233	93.4	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0264	106	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0241	96.3	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0248	99.2	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0265	106	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0234	93.8	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0227	91	75 - 123	
1,2-Dibromoethane	1	0.025	0.0224	89.4	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0237	94.9	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0251	101	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0240	96.2	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1906	152	55 - 149	J4
2-Hexanone	1	0.125	0.1466	117	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1203	96.3	70.5 - 133	
Acetone	1	0.125	0.2290	183	35.6 - 163	J4
Benzene	1	0.025	0.0259	104	74.8 - 121	
Bromodichloromethane	1	0.025	0.0229	91.5	75.1 - 116	
Bromoform	1	0.025	0.0208	83.1	67.5 - 130	
Bromomethane	1	0.025	0.0398	159	49.9 - 162	
Carbon disulfide	1	0.025	0.0238	95.3	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0242	96.9	70.2 - 123	
Chlorobenzene	1	0.025	0.0237	94.7	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0220	87.9	74 - 121	
Chloroethane	1	0.025	0.0267	107	61.7 - 135	
Chloroform	1	0.025	0.0256	102	76 - 121	
Chloromethane	1	0.025	0.0213	85.1	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0244	97.7	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0240	95.9	78.2 - 120	
Ethylbenzene	1	0.025	0.0238	95.1	78.8 - 122	
Isopropylbenzene	1	0.025	0.0236	94.6	78.6 - 132	
m&p-Xylenes	1	0.05	0.0471	94.2	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0260	104	71.2 - 126	
Methylene Chloride	1	0.025	0.0260	104	70.3 - 120	
Naphthalene	1	0.025	0.0252	101	68.4 - 128	
n-Butylbenzene	1	0.025	0.0266	106	76.2 - 126	
n-Propylbenzene	1	0.025	0.0242	96.8	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0238	95.1	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0241	96.3	74 - 131	
sec-Butylbenzene	1	0.025	0.0244	97.6	74.4 - 127	
Styrene	1	0.025	0.0233	93.3	80.4 - 126	
Tetrachloroethene	1	0.025	0.0236	94.3	72.6 - 126	
Toluene	1	0.025	0.0234	93.5	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0243	97.3	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0227	90.8	74.3 - 123	
Trichloroethene	1	0.025	0.0244	97.6	77.7 - 118	
Vinyl chloride	1	0.025	0.0227	91	65.9 - 128	
Xylenes, Total	1	0.075	0.0709	94.5	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0231	92.6	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0254	102	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0229	91.5	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0241	96.4	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0261	104	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0227	90.9	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0222	88.9	75 - 123	
1,2-Dibromoethane	1	0.025	0.0216	86.5	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0221	88.3	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0249	99.6	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0235	94	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1716	137	55 - 149	
2-Hexanone	1	0.125	0.1447	116	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1119	89.5	70.5 - 133	
Acetone	1	0.125	0.2213	177	35.6 - 163	J4
Benzene	1	0.025	0.0251	100	74.8 - 121	
Bromodichloromethane	1	0.025	0.0221	88.4	75.1 - 116	
Bromoform	1	0.025	0.0207	83	67.5 - 130	
Bromomethane	1	0.025	0.0387	155	49.9 - 162	
Carbon disulfide	1	0.025	0.0223	89	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0237	94.8	70.2 - 123	
Chlorobenzene	1	0.025	0.0233	93.1	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0218	87.2	74 - 121	
Chloroethane	1	0.025	0.0255	102	61.7 - 135	
Chloroform	1	0.025	0.0251	100	76 - 121	
Chloromethane	1	0.025	0.0201	80.4	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0235	94	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0234	93.7	78.2 - 120	
Ethylbenzene	1	0.025	0.0233	93.4	78.8 - 122	
Isopropylbenzene	1	0.025	0.0237	94.8	78.6 - 132	
m&p-Xylenes	1	0.05	0.0465	93.1	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0240	95.8	71.2 - 126	
Methylene Chloride	1	0.025	0.0238	95.3	70.3 - 120	
Naphthalene	1	0.025	0.0231	92.4	68.4 - 128	
n-Butylbenzene	1	0.025	0.0253	101	76.2 - 126	
n-Propylbenzene	1	0.025	0.0239	95.6	78.2 - 122	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0237	94.8	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0236	94.3	74 - 131	
sec-Butylbenzene	1	0.025	0.0243	97.3	74.4 - 127	
Styrene	1	0.025	0.0224	89.7	80.4 - 126	
Tetrachloroethene	1	0.025	0.0234	93.7	72.6 - 126	
Toluene	1	0.025	0.0228	91.3	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0237	94.9	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0206	82.5	74.3 - 123	
Trichloroethene	1	0.025	0.0238	95.4	77.7 - 118	
Vinyl chloride	1	0.025	0.0218	87.2	65.9 - 128	
Xylenes, Total	1	0.075	0.0702	93.6	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec	Qual	RPD
1,1,1,2-Tetrachloroethane	1	0.025	0.0233	93.4	0.0231	92.6	74.2 - 124		0.84	20
1,1,1-Trichloroethane	1	0.025	0.0264	106	0.0254	102	73.2 - 123		3.89	20
1,1,2,2-Tetrachloroethane	1	0.025	0.0241	96.3	0.0229	91.5	70.7 - 122		5.07	20
1,1,2-Trichloroethane	1	0.025	0.0248	99.2	0.0241	96.4	77.7 - 118		2.9	20
1,1-Dichloroethane	1	0.025	0.0265	106	0.0261	104	70.7 - 126		1.57	20
1,1-Dichloroethene	1	0.025	0.0234	93.8	0.0227	90.9	67.8 - 129		3.17	20
1,2,4-Trimethylbenzene	1	0.025	0.0227	91	0.0222	88.9	75 - 123		2.29	20
1,2-Dibromoethane	1	0.025	0.0224	89.4	0.0216	86.5	76.6 - 121		3.34	20
1,2-Dichloroethane	1	0.025	0.0237	94.9	0.0221	88.3	68.8 - 124		7.22	20
1,2-Dichloropropane	1	0.025	0.0251	101	0.0249	99.6	76.5 - 119		0.98	20
1,3,5-Trimethylbenzene	1	0.025	0.0240	96.2	0.0235	94	75.6 - 124		2.31	20
2-Butanone (MEK)	1	0.125	0.1906	152	0.1716	137	55 - 149	J4	10.5	20
2-Hexanone	1	0.125	0.1466	117	0.1447	116	65.6 - 144		1.34	20
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1203	96.3	0.1119	89.5	70.5 - 133		7.25	20
Acetone	1	0.125	0.2290	183	0.2213	177	35.6 - 163	J4	3.39	23.9
Benzene	1	0.025	0.0259	104	0.0251	100	74.8 - 121		3.14	20
Bromodichloromethane	1	0.025	0.0229	91.5	0.0221	88.4	75.1 - 116		3.39	20
Bromoform	1	0.025	0.0208	83.1	0.0207	83	67.5 - 130		0.11	20
Bromomethane	1	0.025	0.0398	159	0.0387	155	49.9 - 162		2.89	20
Carbon disulfide	1	0.025	0.0238	95.3	0.0223	89	64.6 - 140		6.87	20
Carbon tetrachloride	1	0.025	0.0242	96.9	0.0237	94.8	70.2 - 123		2.17	20
Chlorobenzene	1	0.025	0.0237	94.7	0.0233	93.1	78.1 - 119		1.61	20
Chlorodibromomethane	1	0.025	0.0220	87.9	0.0218	87.2	74 - 121		0.8	20
Chloroethane	1	0.025	0.0267	107	0.0255	102	61.7 - 135		4.57	20
Chloroform	1	0.025	0.0256	102	0.0251	100	76 - 121		1.97	20
Chloromethane	1	0.025	0.0213	85.1	0.0201	80.4	61.5 - 129		5.71	20
cis-1,2-Dichloroethene	1	0.025	0.0244	97.7	0.0235	94	76 - 119		3.87	20
cis-1,3-Dichloropropene	1	0.025	0.0240	95.9	0.0234	93.7	78.2 - 120		2.3	20
Ethylbenzene	1	0.025	0.0238	95.1	0.0233	93.4	78.8 - 122		1.85	20
Isopropylbenzene	1	0.025	0.0236	94.6	0.0237	94.8	78.6 - 132		0.22	20
m&p-Xylenes	1	0.05	0.0471	94.2	0.0465	93.1	78.8 - 121		1.16	20
Methyl tert-butyl ether	1	0.025	0.0260	104	0.0240	95.8	71.2 - 126		8.02	20
Methylene Chloride	1	0.025	0.0260	104	0.0238	95.3	70.3 - 120		8.85	20
Naphthalene	1	0.025	0.0252	101	0.0231	92.4	68.4 - 128		8.74	20
n-Butylbenzene	1	0.025	0.0266	106	0.0253	101	76.2 - 126		4.82	20
n-Propylbenzene	1	0.025	0.0242	96.8	0.0239	95.6	78.2 - 122		1.2	20



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control		Control RPD	
							Limits	% Rec Qual	% RPD	Limits Qual
o-Xylene	1	0.025	0.0238	95.1	0.0237	94.8	77.6 - 122		0.37	20
p-Isopropyltoluene	1	0.025	0.0241	96.3	0.0236	94.3	74 - 131		2.01	20
sec-Butylbenzene	1	0.025	0.0244	97.6	0.0243	97.3	74.4 - 127		0.37	20
Styrene	1	0.025	0.0233	93.3	0.0224	89.7	80.4 - 126		3.99	20
Tetrachloroethene	1	0.025	0.0236	94.3	0.0234	93.7	72.6 - 126		0.57	20
Toluene	1	0.025	0.0234	93.5	0.0228	91.3	79.7 - 116		2.45	20
trans-1,2-Dichloroethene	1	0.025	0.0243	97.3	0.0237	94.9	72.6 - 121		2.44	20
trans-1,3-Dichloropropene	1	0.025	0.0227	90.8	0.0206	82.5	74.3 - 123		9.58	20
Trichloroethene	1	0.025	0.0244	97.6	0.0238	95.4	77.7 - 118		2.36	20
Vinyl chloride	1	0.025	0.0227	91	0.0218	87.2	65.9 - 128		4.19	20
Xylenes, Total	1	0.075	0.0709	94.5	0.0702	93.6	78.7 - 121		0.9	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Matrix Spike / Matrix Spike Duplicate

L733743-01

Analyte	Dil	Spike		Control				% Rec Qual	RPD	Control Limits	RPD
		Value	Sample	MS	% Rec	MSD	% Rec				
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0277	111	0.0266	107	64 - 128	3.79	20	
1,1,1-Trichloroethane	1	0.025	0.0	0.0325	130	0.0312	125	58.7 - 134	3.82	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0283	113	0.0284	113	56 - 132	0.21	22.2	
1,1,2-Trichloroethane	1	0.025	0.0	0.0252	101	0.0247	98.7	66.3 - 125	1.97	20	
1,1-Dichloroethane	1	0.025	0.0	0.0291	116	0.0279	112	58.5 - 132	4.24	20	
1,1-Dichloroethene	1	0.025	0.0	0.0304	122	0.0281	112	51.1 - 140	7.94	20.2	
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0273	109	0.0269	107	57.4 - 137	1.74	20	
1,2-Dibromoethane	1	0.025	0.0	0.0250	99.9	0.0244	97.5	67.1 - 125	2.41	20	
1,2-Dichloroethane	1	0.025	0.0	0.0277	111	0.0273	109	60 - 126	1.16	20	
1,2-Dichloropropane	1	0.025	0.0	0.0275	110	0.0269	108	64.2 - 123	2.39	20	
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0274	109	0.0268	107	63.6 - 132	1.86	20.5	
2-Butanone (MEK)	1	0.125	0.0	0.1346	108	0.1352	108	22.4 - 138	0.45	27	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1498	120	0.1506	120	60.8 - 140	0.5	25.1	
Acetone	1	0.125	0.0017	0.1242	98	0.1206	95.1	10 - 130	2.91	27.9	
Benzene	1	0.025	0.0	0.0258	103	0.0250	100	54.3 - 133	3	20	
Bromodichloromethane	1	0.025	0.0	0.0295	118	0.0291	116	63.9 - 121	1.36	20	
Bromoform	1	0.025	0.0	0.0264	106	0.0262	105	59.5 - 134	0.9	20.5	
Bromomethane	1	0.025	0.0	0.0307	123	0.0286	115	41.7 - 155	6.85	21.9	
Carbon tetrachloride	1	0.025	0.0	0.0314	126	0.0301	120	55.7 - 134	4.37	20	
Chlorobenzene	1	0.025	0.0	0.0261	104	0.0251	100	67 - 125	3.95	20	
Chlorodibromomethane	1	0.025	0.0	0.0248	99.1	0.0247	98.6	64.3 - 125	0.5	20.8	
Chloroethane	1	0.025	0.0	0.0278	111	0.0263	105	51.5 - 136	5.38	40	
Chloroform	1	0.025	0.0	0.0302	121	0.0291	117	63 - 129	3.44	20	
Chloromethane	1	0.025	0.0	0.0254	102	0.0239	95.7	42.4 - 135	5.93	20	
cis-1,2-Dichloroethene	1	0.025	0.0	0.0286	114	0.0278	111	59.2 - 129	2.85	20	
cis-1,3-Dichloropropene	1	0.025	0.0	0.0269	108	0.0261	105	66.4 - 125	2.87	20	
Ethylbenzene	1	0.025	0.0	0.0263	105	0.0251	100	61.4 - 133	4.62	20	
Isopropylbenzene	1	0.025	0.0	0.0276	110	0.0266	106	66.8 - 141	3.53	20	
m&p-Xylenes	1	0.05	0.0	0.0522	104	0.0498	99.6	61.7 - 133	4.69	20	
Methyl tert-butyl ether	1	0.025	0.0	0.0295	118	0.0304	122	57.7 - 134	2.97	20	
Methylene Chloride	1	0.025	0.0	0.0261	105	0.0255	102	58.1 - 122	2.39	20	
Naphthalene	1	0.025	0.0	0.0257	103	0.0275	110	58 - 135	6.75	25.5	
n-Butylbenzene	1	0.025	0.0	0.0292	117	0.0290	116	62.7 - 140	0.45	20.3	
n-Propylbenzene	1	0.025	0.0	0.0270	108	0.0262	105	65.9 - 131	3.03	20	
o-Xylene	1	0.025	0.0	0.0261	105	0.0253	101	63.3 - 130	3.12	20	
p-Isopropyltoluene	1	0.025	0.0	0.0281	112	0.0276	110	63.2 - 139	1.86	20.4	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Matrix Spike / Matrix Spike Duplicate

L733743-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
sec-Butylbenzene	1	0.025	0.0	0.0278	111	0.0271	108	62.2 - 136	2.63	20.3		
Styrene	1	0.025	0.0	0.0271	108	0.0260	104	66.8 - 133	3.96	20		
Tetrachloroethene	1	0.025	0.0	0.0254	102	0.0236	94.5	53 - 139	7.22	20		
Toluene	1	0.025	0.0	0.0258	103	0.0248	99.3	61.4 - 130	3.94	20		
trans-1,2-Dichloroethene	1	0.025	0.0	0.0291	117	0.0271	108	56.5 - 129	7.44	20		
trans-1,3-Dichloropropene	1	0.025	0.0	0.0294	118	0.0278	111	64.1 - 128	5.55	20		
Trichloroethene	1	0.025	0.0	0.0256	102	0.0247	98.9	44.1 - 149	3.41	20		
Vinyl chloride	1	0.025	0.0	0.0300	120	0.0276	110	47.8 - 137	8.47	20		
Xylenes, Total	1	0.075	0.0	0.0784	104	0.0752	100	63.3 - 131	4.16	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Matrix Spike / Matrix Spike Duplicate

L733630-02

Analyte	Dil	Spike		Control				% Rec Qual	RPD	Control Limits	RPD	Control Limits	RPD
		Value	Sample	MS	% Rec	MSD	% Rec						
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0255	102	0.0260	104	64 - 128	1.89	20			
1,1,1-Trichloroethane	1	0.025	0.0	0.0239	95.4	0.0255	102	58.7 - 134	6.74	20			
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0280	112	0.0272	109	56 - 132	3.16	22.2			
1,1,2-Trichloroethane	1	0.025	0.0	0.0265	106	0.0269	108	66.3 - 125	1.32	20			
1,1-Dichloroethane	1	0.025	0.0	0.0259	104	0.0262	105	58.5 - 132	1.4	20			
1,1-Dichloroethene	1	0.025	0.0	0.0281	112	0.0278	111	51.1 - 140	1.04	20.2			
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0245	97.8	0.0255	102	57.4 - 137	4.22	20			
1,2-Dibromoethane	1	0.025	0.0	0.0261	104	0.0268	107	67.1 - 125	2.44	20			
1,2-Dichloroethane	1	0.025	0.0	0.0276	110	0.0278	111	60 - 126	0.72	20			
1,2-Dichloropropane	1	0.025	0.0	0.0266	107	0.0266	106	64.2 - 123	0.14	20			
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0244	97.7	0.0254	102	63.6 - 132	3.9	20.5			
2-Butanone (MEK)	1	0.125	0.0	0.1458	117	0.1376	110	22.4 - 138	5.76	27			
2-Hexanone	1	0.125	0.0	0.1408	113	0.1370	110	43.3 - 137	2.79	25.5			
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1434	115	0.1375	110	60.8 - 140	4.25	25.1			
Acetone	1	0.125	0.0016	0.1078	84.9	0.0946	74.4	10 - 130	13	27.9			
Benzene	1	0.025	0.0	0.0243	97.2	0.0251	100	54.3 - 133	3.27	20			
Bromodichloromethane	1	0.025	0.0	0.0283	113	0.0283	113	63.9 - 121	0.19	20			
Bromoform	1	0.025	0.0	0.0262	105	0.0261	104	59.5 - 134	0.44	20.5			
Bromomethane	1	0.025	0.0	0.0245	97.9	0.0232	92.7	41.7 - 155	5.46	21.9			
Carbon disulfide	1	0.025	0.0	0.0238	95.2	0.0241	96.4	43.3 - 149	1.26	20.3			
Carbon tetrachloride	1	0.025	0.0	0.0251	100	0.0258	103	55.7 - 134	2.55	20			
Chlorobenzene	1	0.025	0.0	0.0252	101	0.0263	105	67 - 125	4.48	20			
Chlorodibromomethane	1	0.025	0.0	0.0252	101	0.0256	103	64.3 - 125	1.63	20.8			
Chloroethane	1	0.025	0.0	0.0230	92	0.0217	86.6	51.5 - 136	6.02	40			
Chloroform	1	0.025	0.0	0.0278	111	0.0281	112	63 - 129	0.98	20			
Chloromethane	1	0.025	0.0	0.0213	85.2	0.0210	83.9	42.4 - 135	1.5	20			
cis-1,2-Dichloroethene	1	0.025	0.0047	0.0304	103	0.0307	104	59.2 - 129	1.17	20			
cis-1,3-Dichloropropene	1	0.025	0.0	0.0276	110	0.0271	108	66.4 - 125	1.72	20			
Ethylbenzene	1	0.025	0.0	0.0244	97.6	0.0257	103	61.4 - 133	5.29	20			
Isopropylbenzene	1	0.025	0.0	0.0246	98.5	0.0258	103	66.8 - 141	4.58	20			
m&p-Xylenes	1	0.05	0.0	0.0483	96.7	0.0507	101	61.7 - 133	4.88	20			
Methyl tert-butyl ether	1	0.025	0.0	0.0273	109	0.0271	108	57.7 - 134	0.62	20			
Methylene Chloride	1	0.025	0.0	0.0231	92.2	0.0230	91.9	58.1 - 122	0.39	20			
Naphthalene	1	0.025	0.0	0.0276	110	0.0287	115	58 - 135	3.93	25.5			
n-Butylbenzene	1	0.025	0.0	0.0276	110	0.0291	117	62.7 - 140	5.53	20.3			
n-Propylbenzene	1	0.025	0.0	0.0243	97.3	0.0255	102	65.9 - 131	4.83	20			

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Matrix Spike / Matrix Spike Duplicate

L733630-02

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
o-Xylene	1	0.025	0.0	0.0239	95.4	0.0245	97.9	63.3 - 130		2.56	20	
p-Isopropyltoluene	1	0.025	0.0	0.0249	99.8	0.0261	104	63.2 - 139		4.49	20.4	
sec-Butylbenzene	1	0.025	0.0	0.0246	98.2	0.0256	102	62.2 - 136		4.21	20.3	
Styrene	1	0.025	0.0	0.0257	103	0.0268	107	66.8 - 133		4.05	20	
Tetrachloroethene	1	0.025	0.5987	0.5155	0	0.5157	0	53 - 139	V	0.05	20	
Toluene	1	0.025	0.0	0.0243	97.3	0.0248	99.3	61.4 - 130		2.08	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0253	101	0.0254	102	56.5 - 129		0.51	20	
trans-1,3-Dichloropropene	1	0.025	0.0	0.0320	128	0.0311	124	64.1 - 128		2.9	20	
Trichloroethene	1	0.025	0.0032	0.0266	93.9	0.0269	94.9	44.1 - 149		0.98	20	
Vinyl chloride	1	0.025	0.0	0.0257	103	0.0250	99.8	47.8 - 137		2.79	20	
Xylenes, Total	1	0.075	0.0	0.0722	96.3	0.0752	100	63.3 - 131		4.12	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754909
Analysis Date:	11/21/2014 11:52:00 AM	Analyst:	644
Instrument ID:	VOCMS20		
Sample Numbers:	L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44		

Matrix Spike / Matrix Spike Duplicate

L733743-25

Analyte	Dil	Spike		Control				% Rec Qual	RPD	Control		RPD
		Value	Sample	MS	% Rec	MSD	% Rec			Limits	Limits	
1,1,1,2-Tetrachloroethane	1	0.025	<0.0004	0.0236	94.5	0.0278	111	64 - 128		16.1	20	
1,1,1-Trichloroethane	1	0.025	<0.0003	0.0222	88.6	0.0234	93.6	58.7 - 134		5.48	20	
1,1,2,2-Tetrachloroethane	1	0.025	<0.0001	0.0281	113	0.0321	128	56 - 132		13.1	22.2	
1,1,2-Trichloroethane	1	0.025	<0.0004	0.0246	98.4	0.0274	110	66.3 - 125		11	20	
1,1-Dichloroethane	1	0.025	<0.0003	0.0241	96.2	0.0249	99.6	58.5 - 132		3.45	20	
1,1-Dichloroethene	1	0.025	<0.0004	0.0209	83.7	0.0222	88.8	51.1 - 140		5.94	20.2	
1,2,4-Trimethylbenzene	1	0.025	<0.0004	0.0245	97.9	0.0271	109	57.4 - 137		10.3	20	
1,2-Dibromoethane	1	0.025	<0.0004	0.0250	100	0.0288	115	67.1 - 125		14.3	20	
1,2-Dichloroethane	1	0.025	<0.0004	0.0215	86.2	0.0223	89.1	60 - 126		3.32	20	
1,2-Dichloropropane	1	0.025	<0.0003	0.0260	104	0.0279	112	64.2 - 123		7.03	20	
1,3,5-Trimethylbenzene	1	0.025	<0.0004	0.0244	97.7	0.0272	109	63.6 - 132		10.8	20.5	
2-Butanone (MEK)	1	0.125	<0.0039	0.1449	116	0.1542	123	22.4 - 138		6.2	27	
2-Hexanone	1	0.125	<0.0038	0.1544	123	0.1817	145	43.3 - 137	J5	16.3	25.5	
4-Methyl-2-pentanone (MIBK)	1	0.125	<0.0021	0.1642	131	0.1789	143	60.8 - 140	J5	8.58	25.1	
Acetone	1	0.125	<0.01	0.1122	87.5	0.1169	91.3	10 - 130		4.1	27.9	
Benzene	1	0.025	<0.0003	0.0232	92.7	0.0243	97.2	54.3 - 133		4.69	20	
Bromodichloromethane	1	0.025	<0.0004	0.0233	93.2	0.0246	98.2	63.9 - 121		5.24	20	
Bromoform	1	0.025	<0.0005	0.0281	112	0.0330	132	59.5 - 134		15.9	20.5	
Bromomethane	1	0.025	<0.0009	0.0360	144	0.0383	153	41.7 - 155		6.31	21.9	
Carbon disulfide	1	0.025	<0.0003	0.0194	77.7	0.0202	80.9	43.3 - 149		4.08	20.3	
Carbon tetrachloride	1	0.025	<0.0004	0.0227	90.9	0.0248	99.4	55.7 - 134		8.91	20	
Chlorobenzene	1	0.025	<0.0003	0.0237	94.6	0.0273	109	67 - 125		14.2	20	
Chlorodibromomethane	1	0.025	<0.0003	0.0245	97.9	0.0284	114	64.3 - 125		15	20.8	
Chloroethane	1	0.025	<0.0005	0.0219	87.6	0.0215	86.2	51.5 - 136		1.68	40	
Chloroform	1	0.025	<0.0003	0.0227	90.8	0.0234	93.7	63 - 129		3.17	20	
Chloromethane	1	0.025	<0.0003	0.0233	93.3	0.0239	95.7	42.4 - 135		2.48	20	
cis-1,2-Dichloroethene	1	0.025	<0.0003	0.0235	93.9	0.0256	102	59.2 - 129		8.59	20	
cis-1,3-Dichloropropene	1	0.025	<0.0004	0.0263	105	0.0284	113	66.4 - 125		7.69	20	
Ethylbenzene	1	0.025	<0.0004	0.0245	98.1	0.0275	110	61.4 - 133		11.4	20	
Isopropylbenzene	1	0.025	<0.0003	0.0253	101	0.0284	114	66.8 - 141		11.8	20	
m&p-Xylenes	1	0.05	<0.0007	0.0499	99.8	0.0563	113	61.7 - 133		12	20	
Methyl tert-butyl ether	1	0.025	<0.0004	0.0245	98	0.0257	103	57.7 - 134		4.65	20	
Methylene Chloride	1	0.025	<0.001	0.0211	84.6	0.0217	86.9	58.1 - 122		2.68	20	
Naphthalene	1	0.025	<0.001	0.0294	118	0.0318	127	58 - 135		7.82	25.5	
n-Butylbenzene	1	0.025	<0.0004	0.0255	102	0.0274	110	62.7 - 140		7.44	20.3	
n-Propylbenzene	1	0.025	<0.0003	0.0246	98.2	0.0278	111	65.9 - 131		12.2	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754909
Analysis Date:	11/21/2014 11:52:00 AM	Analyst:	644
Instrument ID:	VOCMS20		
Sample Numbers:	L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44		

Matrix Spike / Matrix Spike Duplicate

L733743-25

Analyte	Dil	Spike		MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
		Value	Sample									
o-Xylene	1	0.025	<0.0003	0.0239	95.7	0.0272	109	63.3 - 130		12.6	20	
p-Isopropyltoluene	1	0.025	<0.0004	0.0274	110	0.0308	123	63.2 - 139		11.6	20.4	
sec-Butylbenzene	1	0.025	<0.0004	0.0264	106	0.0301	120	62.2 - 136		13.1	20.3	
Styrene	1	0.025	<0.0003	0.0242	96.8	0.0263	105	66.8 - 133		8.14	20	
Tetrachloroethene	1	0.025	<0.0004	0.0265	106	0.0297	119	53 - 139		11.3	20	
Toluene	1	0.025	<0.0008	0.0245	98	0.0263	105	61.4 - 130		6.92	20	
trans-1,2-Dichloroethene	1	0.025	<0.0004	0.0242	96.9	0.0248	99.1	56.5 - 129		2.27	20	
trans-1,3-Dichloropropene	1	0.025	<0.0004	0.0280	112	0.0302	121	64.1 - 128		7.42	20	
Trichloroethene	1	0.025	<0.0004	0.0230	92.1	0.0247	98.9	44.1 - 149		7.12	20	
Vinyl chloride	1	0.025	<0.0003	0.0230	92	0.0233	93.3	47.8 - 137		1.45	20	
Xylenes, Total	1	0.075	<0.0011	0.0738	98.4	0.0834	111	63.3 - 131		12.2	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754914**
 Analysis Date: 11/17/2014 2:20:00 AM Analyst: 644
 Instrument ID: VOCMS14
 Sample Numbers: L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65

Matrix Spike / Matrix Spike Duplicate

L733743-45

Analyte	Dil	Spike		Control				% Rec Qual	Control RPD	RPD	Control Limits	RPD
		Value	Sample	MS	% Rec	MSD	% Rec					
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0246	98.4	0.0270	108	64 - 128	9.12	20		
1,1,1-Trichloroethane	1	0.025	0.0	0.0276	111	0.0302	121	58.7 - 134	8.71	20		
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0288	115	0.0321	129	56 - 132	11	22.2		
1,1,2-Trichloroethane	1	0.025	0.0	0.0250	100	0.0287	115	66.3 - 125	13.8	20		
1,1-Dichloroethane	1	0.025	0.0	0.0265	106	0.0283	113	58.5 - 132	6.83	20		
1,1-Dichloroethene	1	0.025	0.0	0.0236	94.5	0.0264	106	51.1 - 140	11.1	20.2		
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0264	106	0.0307	123	57.4 - 137	15	20		
1,2-Dibromoethane	1	0.025	0.0	0.0287	115	0.0294	118	67.1 - 125	2.33	20		
1,2-Dichloroethane	1	0.025	0.0	0.0248	99.1	0.0264	106	60 - 126	6.32	20		
1,2-Dichloropropane	1	0.025	0.0	0.0272	109	0.0282	113	64.2 - 123	3.55	20		
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0261	105	0.0304	122	63.6 - 132	15.1	20.5		
2-Butanone (MEK)	1	0.125	0.0	0.1303	104	0.1532	123	22.4 - 138	16.2	27		
2-Hexanone	1	0.125	0.0	0.1426	114	0.1514	121	43.3 - 137	5.97	25.5		
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1545	124	0.1508	121	60.8 - 140	2.42	25.1		
Acetone	1	0.125	0.0099	0.1174	86	0.1212	89	10 - 130	3.22	27.9		
Benzene	1	0.025	0.0	0.0273	109	0.0292	117	54.3 - 133	6.74	20		
Bromodichloromethane	1	0.025	0.0	0.0227	90.8	0.0243	97.3	63.9 - 121	6.91	20		
Bromoform	1	0.025	0.0	0.0233	93.2	0.0246	98.6	59.5 - 134	5.67	20.5		
Bromomethane	1	0.025	0.0	0.0311	125	0.0372	149	41.7 - 155	17.7	21.9		
Carbon disulfide	1	0.025	0.0	0.0188	75.4	0.0205	82	43.3 - 149	8.36	20.3		
Carbon tetrachloride	1	0.025	0.0	0.0262	105	0.0306	122	55.7 - 134	15.5	20		
Chlorobenzene	1	0.025	0.0	0.0261	105	0.0293	117	67 - 125	11.5	20		
Chlorodibromomethane	1	0.025	0.0	0.0226	90.4	0.0248	99.1	64.3 - 125	9.23	20.8		
Chloroethane	1	0.025	0.0	0.0262	105	0.0327	131	51.5 - 136	21.9	40		
Chloroform	1	0.025	0.0	0.0278	111	0.0300	120	63 - 129	7.69	20		
Chloromethane	1	0.025	0.0	0.0265	106	0.0292	117	42.4 - 135	9.77	20		
cis-1,2-Dichloroethene	1	0.025	0.0	0.0281	112	0.0305	122	59.2 - 129	8.05	20		
cis-1,3-Dichloropropene	1	0.025	0.0	0.0250	100	0.0248	99.3	66.4 - 125	0.76	20		
Ethylbenzene	1	0.025	0.0	0.0259	103	0.0300	120	61.4 - 133	14.8	20		
Isopropylbenzene	1	0.025	0.0	0.0262	105	0.0300	120	66.8 - 141	13.5	20		
m&p-Xylenes	1	0.05	0.0	0.0512	102	0.0583	117	61.7 - 133	13	20		
Methyl tert-butyl ether	1	0.025	0.0	0.0283	113	0.0302	121	57.7 - 134	6.3	20		
Methylene Chloride	1	0.025	0.0	0.0267	107	0.0292	117	58.1 - 122	9.04	20		
Naphthalene	1	0.025	0.0003	0.0276	109	0.0283	112	58 - 135	2.65	25.5		
n-Butylbenzene	1	0.025	0.0	0.0268	107	0.0290	116	62.7 - 140	7.71	20.3		
n-Propylbenzene	1	0.025	0.0	0.0259	103	0.0298	119	65.9 - 131	14.1	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754914
Analysis Date:	11/17/2014 2:20:00 AM	Analyst:	644
Instrument ID:	VOCMS14		
Sample Numbers:	L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65		

Matrix Spike / Matrix Spike Duplicate

L733743-45

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
o-Xylene	1	0.025	0.0	0.0260	104	0.0301	120	63.3 - 130	14.6	20		
p-Isopropyltoluene	1	0.025	0.0	0.0275	110	0.0317	127	63.2 - 139	14.2	20.4		
sec-Butylbenzene	1	0.025	0.0	0.0265	106	0.0309	123	62.2 - 136	15.3	20.3		
Styrene	1	0.025	0.0	0.0263	105	0.0300	120	66.8 - 133	13	20		
Tetrachloroethene	1	0.025	0.0	0.0223	89.3	0.0270	108	53 - 139	18.8	20		
Toluene	1	0.025	0.0	0.0261	104	0.0272	109	61.4 - 130	4.45	20		
trans-1,2-Dichloroethene	1	0.025	0.0	0.0264	105	0.0284	114	56.5 - 129	7.52	20		
trans-1,3-Dichloropropene	1	0.025	0.0	0.0227	90.7	0.0239	95.8	64.1 - 128	5.4	20		
Trichloroethene	1	0.025	0.0	0.0250	99.9	0.0253	101	44.1 - 149	1.33	20		
Vinyl chloride	1	0.025	0.0	0.0275	110	0.0300	120	47.8 - 137	8.75	20		
Xylenes, Total	1	0.075	0.0	0.0772	103	0.0884	118	63.3 - 131	13.5	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754915
Analysis Date:	11/19/2014 3:01:00 PM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86		

Matrix Spike / Matrix Spike Duplicate

L733743-67

Analyte	Dil	Spike		Control				% Rec Qual	RPD	Control Limits	RPD
		Value	Sample	MS	% Rec	MSD	% Rec				
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0311	124	0.0282	113	64 - 128	9.56	20	
1,1,1-Trichloroethane	1	0.025	0.0	0.0303	121	0.0255	102	58.7 - 134	17.2	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0307	123	0.0286	114	56 - 132	6.93	22.2	
1,1,2-Trichloroethane	1	0.025	0.0	0.0294	118	0.0272	109	66.3 - 125	7.68	20	
1,1-Dichloroethane	1	0.025	0.0	0.0271	108	0.0229	91.7	58.5 - 132	16.6	20	
1,1-Dichloroethene	1	0.025	0.0	0.0277	111	0.0223	89.4	51.1 - 140	21.5	20.2	J3
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0292	117	0.0255	102	57.4 - 137	13.5	20	
1,2-Dibromoethane	1	0.025	0.0	0.0306	122	0.0286	114	67.1 - 125	6.79	20	
1,2-Dichloroethane	1	0.025	0.0	0.0275	110	0.0245	98	60 - 126	11.4	20	
1,2-Dichloropropane	1	0.025	0.0	0.0265	106	0.0235	94	64.2 - 123	12	20	
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0290	116	0.0261	104	63.6 - 132	10.6	20.5	
2-Butanone (MEK)	1	0.125	0.0	0.1343	107	0.1186	94.9	22.4 - 138	12.4	27	
2-Hexanone	1	0.125	0.0	0.1547	124	0.1469	118	43.3 - 137	5.2	25.5	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1498	120	0.1336	107	60.8 - 140	11.4	25.1	
Acetone	1	0.125	0.0027	0.1121	87.6	0.0941	73.1	10 - 130	17.5	27.9	
Benzene	1	0.025	0.0	0.0270	108	0.0231	92.6	54.3 - 133	15.5	20	
Bromodichloromethane	1	0.025	0.0	0.0276	110	0.0247	98.8	63.9 - 121	11	20	
Bromoform	1	0.025	0.0	0.0342	137	0.0316	126	59.5 - 134	J5	7.87	20.5
Bromomethane	1	0.025	0.0	0.0372	149	0.0328	131	41.7 - 155	12.7	21.9	
Carbon disulfide	1	0.025	0.0	0.0255	102	0.0205	81.9	43.3 - 149	22	20.3	J3
Carbon tetrachloride	1	0.025	0.0	0.0312	125	0.0263	105	55.7 - 134	17.3	20	
Chlorobenzene	1	0.025	0.0	0.0300	120	0.0263	105	67 - 125	13	20	
Chlorodibromomethane	1	0.025	0.0	0.0320	128	0.0296	118	64.3 - 125	J5	7.98	20.8
Chloroethane	1	0.025	0.0	0.0341	136	0.0305	122	51.5 - 136	11.1	40	
Chloroform	1	0.025	0.0	0.0286	115	0.0242	97	63 - 129	16.6	20	
Chloromethane	1	0.025	0.0	0.0219	87.5	0.0186	74.4	42.4 - 135	16.2	20	
cis-1,2-Dichloroethene	1	0.025	0.0	0.0281	112	0.0241	96.4	59.2 - 129	15.4	20	
cis-1,3-Dichloropropene	1	0.025	0.0	0.0280	112	0.0247	98.6	66.4 - 125	12.9	20	
Ethylbenzene	1	0.025	0.0	0.0298	119	0.0262	105	61.4 - 133	12.9	20	
Isopropylbenzene	1	0.025	0.0	0.0316	126	0.0273	109	66.8 - 141	14.4	20	
m&p-Xylenes	1	0.05	0.0	0.0583	117	0.0526	105	61.7 - 133	10.3	20	
Methyl tert-butyl ether	1	0.025	0.0	0.0276	110	0.0248	99	57.7 - 134	10.8	20	
Methylene Chloride	1	0.025	0.0	0.0273	109	0.0237	94.7	58.1 - 122	14.3	20	
Naphthalene	1	0.025	0.0	0.0271	109	0.0255	102	58 - 135	6.31	25.5	
n-Butylbenzene	1	0.025	0.0	0.0288	115	0.0245	98.1	62.7 - 140	16.1	20.3	
n-Propylbenzene	1	0.025	0.0	0.0304	121	0.0266	106	65.9 - 131	13.4	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754915
Analysis Date:	11/19/2014 3:01:00 PM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86		

Matrix Spike / Matrix Spike Duplicate

L733743-67

Analyte	Dil	Spike		Control				% Rec Qual	RPD	Control Limits	RPD
		Value	Sample	MS	% Rec	MSD	% Rec				
o-Xylene	1	0.025	0.0	0.0286	114	0.0257	103	63.3 - 130	10.6	20	
p-Isopropyltoluene	1	0.025	0.0	0.0332	133	0.0292	117	63.2 - 139	12.5	20.4	
sec-Butylbenzene	1	0.025	0.0	0.0326	130	0.0284	114	62.2 - 136	13.5	20.3	
Styrene	1	0.025	0.0	0.0296	118	0.0268	107	66.8 - 133	9.96	20	
Tetrachloroethene	1	0.025	0.0	0.0330	132	0.0293	117	53 - 139	11.9	20	
Toluene	1	0.025	0.0	0.0300	120	0.0258	103	61.4 - 130	15	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0273	109	0.0226	90.4	56.5 - 129	19	20	
trans-1,3-Dichloropropene	1	0.025	0.0	0.0296	119	0.0272	109	64.1 - 128	8.6	20	
Trichloroethene	1	0.025	0.0	0.0305	122	0.0259	104	44.1 - 149	16.3	20	
Vinyl chloride	1	0.025	0.0	0.0248	99.1	0.0199	79.7	47.8 - 137	21.8	20	J3
Xylenes, Total	1	0.075	0.0	0.0869	116	0.0783	104	63.3 - 131	10.4	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754916
Analysis Date:	11/22/2014 3:10:00 AM	Analyst:	644
Instrument ID:	VOCMS7		
Sample Numbers:	L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105		

Matrix Spike / Matrix Spike Duplicate

L733743-99

Analyte	Dil	Spike		Control				% Rec Qual	RPD	Control Limits	RPD	RPD Qual
		Value	Sample	MS	% Rec	MSD	% Rec					
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0230	92.1	0.0207	82.8	64 - 128	10.6	20		
1,1,1-Trichloroethane	1	0.025	0.0	0.0199	79.8	0.0175	70	58.7 - 134	13	20		
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0230	92	0.0206	82.5	56 - 132	10.9	22.2		
1,1,2-Trichloroethane	1	0.025	0.0	0.0231	92.3	0.0204	81.5	66.3 - 125	12.4	20		
1,1-Dichloroethane	1	0.025	0.0	0.0196	78.4	0.0174	69.7	58.5 - 132	11.8	20		
1,1-Dichloroethene	1	0.025	0.0	0.0185	74.1	0.0164	65.5	51.1 - 140	12.3	20.2		
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0214	85.8	0.0190	76	57.4 - 137	12.1	20		
1,2-Dibromoethane	1	0.025	0.0	0.0237	94.7	0.0210	84	67.1 - 125	12	20		
1,2-Dichloroethane	1	0.025	0.0	0.0191	76.5	0.0170	68.2	60 - 126	11.5	20		
1,2-Dichloropropane	1	0.025	0.0	0.0217	86.9	0.0188	75	64.2 - 123	14.7	20		
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0215	86	0.0193	77.3	63.6 - 132	10.7	20.5		
2-Butanone (MEK)	1	0.125	0.0	0.1015	81.2	0.0958	76.7	22.4 - 138	5.77	27		
2-Hexanone	1	0.125	0.0	0.1141	91.3	0.1037	83	43.3 - 137	9.53	25.5		
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1121	89.7	0.0992	79.3	60.8 - 140	12.2	25.1		
Acetone	1	0.125	0.0016	0.0927	72.8	0.0840	65.9	10 - 130	9.84	27.9		
Benzene	1	0.025	0.0	0.0192	76.9	0.0169	67.8	54.3 - 133	12.7	20		
Bromodichloromethane	1	0.025	0.0	0.0212	84.9	0.0183	73	63.9 - 121	15	20		
Bromoform	1	0.025	0.0	0.0253	101	0.0224	89.5	59.5 - 134	12.2	20.5		
Bromomethane	1	0.025	0.0004	0.0205	80.7	0.0164	64	41.7 - 155	22.6	21.9		J3
Carbon disulfide	1	0.025	0.0003	0.0167	65.5	0.0148	58	43.3 - 149	11.8	20.3		
Carbon tetrachloride	1	0.025	0.0	0.0198	79.2	0.0198	79.2	55.7 - 134	0.05	20		
Chlorobenzene	1	0.025	0.0	0.0223	89.1	0.0196	78.2	67 - 125	13	20		
Chlorodibromomethane	1	0.025	0.0	0.0238	95.1	0.0206	82.3	64.3 - 125	14.4	20.8		
Chloroethane	1	0.025	0.0	0.0198	79.2	0.0173	69.2	51.5 - 136	13.5	40		
Chloroform	1	0.025	0.0	0.0200	80.2	0.0172	68.9	63 - 129	15.1	20		
Chloromethane	1	0.025	0.0	0.0180	72.1	0.0158	63.2	42.4 - 135	13.2	20		
cis-1,2-Dichloroethene	1	0.025	0.0	0.0205	81.9	0.0181	72.3	59.2 - 129	12.5	20		
cis-1,3-Dichloropropene	1	0.025	0.0	0.0214	85.7	0.0183	73.2	66.4 - 125	15.8	20		
Ethylbenzene	1	0.025	0.0	0.0216	86.3	0.0193	77.3	61.4 - 133	11.1	20		
Isopropylbenzene	1	0.025	0.0020	0.0239	87.7	0.0214	77.7	66.8 - 141	11.1	20		
m&p-Xylenes	1	0.05	0.0	0.0411	82.1	0.0367	73.5	61.7 - 133	11.1	20		
Methyl tert-butyl ether	1	0.025	0.0	0.0199	79.5	0.0177	70.6	57.7 - 134	11.8	20		
Methylene Chloride	1	0.025	0.0	0.0179	71.7	0.0160	64	58.1 - 122	11.2	20		
Naphthalene	1	0.025	0.0004	0.0219	86	0.0198	77.6	58 - 135	10	25.5		
n-Butylbenzene	1	0.025	0.0	0.0204	81.7	0.0184	73.5	62.7 - 140	10.6	20.3		
n-Propylbenzene	1	0.025	0.0	0.0214	85.6	0.0192	76.7	65.9 - 131	10.9	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754916
Analysis Date:	11/22/2014 3:10:00 AM	Analyst:	644
Instrument ID:	VOCMS7		
Sample Numbers:	L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105		

Matrix Spike / Matrix Spike Duplicate

L733743-99

Analyte	Dil	Spike		MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
		Value	Sample									
o-Xylene	1	0.025	0.0	0.0210	84.1	0.0186	74.3	63.3 - 130		12.3	20	
p-Isopropyltoluene	1	0.025	0.0022	0.0226	81.5	0.0203	72.3	63.2 - 139		10.7	20.4	
sec-Butylbenzene	1	0.025	0.0007	0.0229	88.5	0.0205	79.1	62.2 - 136		10.9	20.3	
Styrene	1	0.025	0.0	0.0219	87.6	0.0194	77.5	66.8 - 133		12.2	20	
Tetrachloroethene	1	0.025	0.0	0.0229	91.6	0.0211	84.5	53 - 139		8.04	20	
Toluene	1	0.025	0.0	0.0201	80.3	0.0175	70.2	61.4 - 130		13.5	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0199	79.7	0.0180	72.2	56.5 - 129		9.94	20	
trans-1,3-Dichloropropene	1	0.025	0.0	0.0238	95.1	0.0203	81.2	64.1 - 128		15.8	20	
Trichloroethene	1	0.025	0.0	0.0215	85.9	0.0187	75	44.1 - 149		13.6	20	
Vinyl chloride	1	0.025	0.0	0.0198	79.4	0.0174	69.7	47.8 - 137		13	20	
Xylenes, Total	1	0.075	0.0	0.0621	82.8	0.0553	73.8	63.3 - 131		11.5	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754917
Analysis Date:	11/19/2014 3:06:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125		

Matrix Spike / Matrix Spike Duplicate

L733743-115

Analyte	Dil	Spike		Control				% Rec Qual	RPD	Control		RPD
		Value	Sample	MS	% Rec	MSD	% Rec			Limits	Limits	
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0250	99.8	0.0342	137	64 - 128	J5	31.3	20	J3
1,1,1-Trichloroethane	1	0.025	0.0	0.0240	96	0.0290	116	58.7 - 134		19	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0268	107	0.0382	153	56 - 132	J5	34.9	22.2	J3
1,1,2-Trichloroethane	1	0.025	0.0	0.0285	114	0.0380	152	66.3 - 125	J5	28.4	20	J3
1,1-Dichloroethane	1	0.025	0.0	0.0250	99.8	0.0311	124	58.5 - 132		21.9	20	J3
1,1-Dichloroethene	1	0.025	0.0	0.0229	91.8	0.0266	106	51.1 - 140		14.8	20.2	
1,2,4-Trimethylbenzene	1	0.025	0.0006	0.0250	97.6	0.0332	130	57.4 - 137		28.2	20	J3
1,2-Dibromoethane	1	0.025	0.0	0.0260	104	0.0355	142	67.1 - 125	J5	31	20	J3
1,2-Dichloroethane	1	0.025	0.0	0.0203	81	0.0277	111	60 - 126		31.2	20	J3
1,2-Dichloropropane	1	0.025	0.0	0.0261	104	0.0351	140	64.2 - 123	J5	29.3	20	J3
1,3,5-Trimethylbenzene	1	0.025	0.0004	0.0255	101	0.0339	134	63.6 - 132	J5	28.2	20.5	J3
2-Butanone (MEK)	1	0.125	0.0011	0.1413	112	0.1848	147	22.4 - 138	J5	26.7	27	
2-Hexanone	1	0.125	0.0	0.1566	125	0.2186	175	43.3 - 137	J5	33	25.5	J3
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0005	0.1437	115	0.2035	162	60.8 - 140	J5	34.4	25.1	J3
Acetone	1	0.125	0.0	0.1335	107	0.1585	127	10 - 130		17.2	27.9	
Benzene	1	0.025	0.2640	0.2327	0	0.2368	0	54.3 - 133	V	1.75	20	
Bromodichloromethane	1	0.025	0.0	0.0242	96.9	0.0327	131	63.9 - 121	J5	29.8	20	J3
Bromoform	1	0.025	0.0	0.0257	103	0.0354	142	59.5 - 134	J5	31.5	20.5	J3
Bromomethane	1	0.025	0.0	0.0179	71.6	0.0263	105	41.7 - 155		38	21.9	J3
Carbon disulfide	1	0.025	0.0005	0.0205	80	0.0229	89.3	43.3 - 149		10.7	20.3	
Carbon tetrachloride	1	0.025	0.0	0.0230	92	0.0286	114	55.7 - 134		21.7	20	J3
Chlorobenzene	1	0.025	0.0	0.0244	97.6	0.0326	130	67 - 125	J5	28.7	20	J3
Chlorodibromomethane	1	0.025	0.0	0.0266	106	0.0360	144	64.3 - 125	J5	30	20.8	J3
Chloroethane	1	0.025	0.0	0.0122	48.8	0.0142	56.9	51.5 - 136	J6	15.3	40	
Chloroform	1	0.025	0.0	0.0250	100	0.0332	133	63 - 129	J5	28.1	20	J3
Chloromethane	1	0.025	0.0010	0.0229	87.4	0.0249	95.6	42.4 - 135		8.55	20	
cis-1,2-Dichloroethene	1	0.025	0.0	0.0242	96.9	0.0307	123	59.2 - 129		23.4	20	J3
cis-1,3-Dichloropropene	1	0.025	0.0003	0.0261	103	0.0350	139	66.4 - 125	J5	29.2	20	J3
Ethylbenzene	1	0.025	0.0200	0.0414	85.8	0.0483	113	61.4 - 133		15.4	20	
Isopropylbenzene	1	0.025	0.0275	0.0480	81.7	0.0552	110	66.8 - 141		14	20	
m&p-Xylenes	1	0.05	0.0027	0.0509	96.3	0.0659	126	61.7 - 133		25.7	20	J3
Methyl tert-butyl ether	1	0.025	0.0	0.0254	102	0.0332	133	57.7 - 134		26.5	20	J3
Methylene Chloride	1	0.025	0.0	0.0234	93.7	0.0285	114	58.1 - 122		19.5	20	
Naphthalene	1	0.025	0.0026	0.0350	129	0.0477	180	58 - 135	J5	30.8	25.5	J3
n-Butylbenzene	1	0.025	0.0013	0.0294	113	0.0378	146	62.7 - 140	J5	24.9	20.3	J3
n-Propylbenzene	1	0.025	0.0212	0.0430	87.4	0.0501	116	65.9 - 131		15.2	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754917
Analysis Date:	11/19/2014 3:06:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125		

Matrix Spike / Matrix Spike Duplicate

L733743-115

Analyte	Dil	Spike		MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
		Value	Sample									
o-Xylene	1	0.025	0.0004	0.0273	108	0.0361	143	63.3 - 130	J5	28	20	J3
p-Isopropyltoluene	1	0.025	0.0	0.0246	98.4	0.0328	131	63.2 - 139		28.4	20.4	J3
sec-Butylbenzene	1	0.025	0.0033	0.0274	96.1	0.0359	130	62.2 - 136		26.8	20.3	J3
Styrene	1	0.025	0.0	0.0260	104	0.0350	140	66.8 - 133	J5	29.6	20	J3
Tetrachloroethene	1	0.025	0.0	0.0224	89.4	0.0297	119	53 - 139		28.2	20	J3
Toluene	1	0.025	0.0057	0.0274	86.9	0.0343	114	61.4 - 130		22.4	20	J3
trans-1,2-Dichloroethene	1	0.025	0.0	0.0236	94.5	0.0281	112	56.5 - 129		17.1	20	J3
trans-1,3-Dichloropropene	1	0.025	0.0	0.0272	109	0.0370	148	64.1 - 128	J5	30.4	20	J3
Trichloroethene	1	0.025	0.0	0.0235	94	0.0306	122	44.1 - 149		26.2	20	J3
Vinyl chloride	1	0.025	0.0	0.0206	82.5	0.0225	90.1	47.8 - 137		8.77	20	J3
Xylenes, Total	1	0.075	0.0031	0.0781	100	0.1020	132	63.3 - 131	J5	26.5	20	J3

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754918
Analysis Date:	11/20/2014 5:53:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141		

Matrix Spike / Matrix Spike Duplicate

L733743-126

Analyte	Dil	Spike		Control				% Rec Qual	Control RPD	RPD Limits	RPD Qual
		Value	Sample	MS	% Rec	MSD	% Rec				
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0214	85.6	0.0239	95.7	64 - 128	11.1	20	
1,1,1-Trichloroethane	1	0.025	0.0	0.0226	90.3	0.0253	101	58.7 - 134	11.2	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0211	84.5	0.0242	96.9	56 - 132	13.6	22.2	
1,1,2-Trichloroethane	1	0.025	0.0	0.0226	90.5	0.0259	104	66.3 - 125	13.4	20	
1,1-Dichloroethane	1	0.025	0.0	0.0228	91.2	0.0254	102	58.5 - 132	10.7	20	
1,1-Dichloroethene	1	0.025	0.0	0.0241	96.3	0.0264	105	51.1 - 140	9.13	20.2	
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0213	85.3	0.0239	95.8	57.4 - 137	11.5	20	
1,2-Dibromoethane	1	0.025	0.0	0.0209	83.5	0.0234	93.7	67.1 - 125	11.5	20	
1,2-Dichloroethane	1	0.025	0.0	0.0217	86.9	0.0247	98.9	60 - 126	12.9	20	
1,2-Dichloropropane	1	0.025	0.0	0.0227	90.9	0.0252	101	64.2 - 123	10.2	20	
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0213	85.3	0.0238	95.2	63.6 - 132	11	20.5	
2-Butanone (MEK)	1	0.125	0.0	0.1270	102	0.1442	115	22.4 - 138	12.7	27	
2-Hexanone	1	0.125	0.0	0.0999	79.9	0.1160	92.8	43.3 - 137	14.9	25.5	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1093	87.4	0.1246	99.7	60.8 - 140	13.1	25.1	
Acetone	1	0.125	0.0026	0.0834	64.6	0.0938	73	10 - 130	11.8	27.9	
Benzene	1	0.025	0.0003	0.0209	82.5	0.0234	92.4	54.3 - 133	11.1	20	
Bromodichloromethane	1	0.025	0.0	0.0234	93.5	0.0257	103	63.9 - 121	9.54	20	
Bromoform	1	0.025	0.0	0.0200	80.1	0.0225	89.9	59.5 - 134	11.6	20.5	
Bromomethane	1	0.025	0.0	0.0224	89.5	0.0240	96	41.7 - 155	7.06	21.9	
Carbon disulfide	1	0.025	0.0	0.0225	90.2	0.0247	98.8	43.3 - 149	9.14	20.3	
Carbon tetrachloride	1	0.025	0.0	0.0226	90.5	0.0251	100	55.7 - 134	10.3	20	
Chlorobenzene	1	0.025	0.0	0.0216	86.4	0.0241	96.4	67 - 125	10.9	20	
Chlorodibromomethane	1	0.025	0.0	0.0203	81.3	0.0230	91.9	64.3 - 125	12.2	20.8	
Chloroethane	1	0.025	0.0	0.0207	82.6	0.0222	88.6	51.5 - 136	6.99	40	
Chloroform	1	0.025	0.0	0.0233	93.4	0.0258	103	63 - 129	10.1	20	
Chloromethane	1	0.025	0.0	0.0198	79.1	0.0215	85.9	42.4 - 135	8.32	20	
cis-1,2-Dichloroethene	1	0.025	0.0	0.0214	85.8	0.0237	94.7	59.2 - 129	9.86	20	
cis-1,3-Dichloropropene	1	0.025	0.0	0.0232	92.9	0.0254	101	66.4 - 125	8.78	20	
Ethylbenzene	1	0.025	0.0	0.0215	86.2	0.0234	93.7	61.4 - 133	8.38	20	
Isopropylbenzene	1	0.025	0.0160	0.0363	81.4	0.0404	97.5	66.8 - 141	10.5	20	
m&p-Xylenes	1	0.05	0.0	0.0427	85.4	0.0476	95.2	61.7 - 133	10.8	20	
Methyl tert-butyl ether	1	0.025	0.0	0.0231	92.4	0.0262	105	57.7 - 134	12.5	20	
Methylene Chloride	1	0.025	0.0	0.0198	79.2	0.0219	87.6	58.1 - 122	10.1	20	
Naphthalene	1	0.025	0.0	0.0227	90.8	0.0264	106	58 - 135	15.2	25.5	
n-Butylbenzene	1	0.025	0.0	0.0247	98.9	0.0277	111	62.7 - 140	11.4	20.3	
n-Propylbenzene	1	0.025	0.0032	0.0244	84.8	0.0270	95.4	65.9 - 131	10.3	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754918
Analysis Date:	11/20/2014 5:53:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141		

Matrix Spike / Matrix Spike Duplicate

L733743-126

Analyte	Dil	Spike		MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
		Value	Sample									
o-Xylene	1	0.025	0.0	0.0206	82.4	0.0231	92.4	63.3 - 130		11.4	20	
p-Isopropyltoluene	1	0.025	0.0	0.0216	86.6	0.0244	97.6	63.2 - 139		11.9	20.4	
sec-Butylbenzene	1	0.025	0.0031	0.0245	85.9	0.0275	97.6	62.2 - 136		11.3	20.3	
Styrene	1	0.025	0.0	0.0215	85.9	0.0242	97	66.8 - 133		12.1	20	
Tetrachloroethene	1	0.025	0.0	0.0208	83.3	0.0232	92.7	53 - 139		10.6	20	
Toluene	1	0.025	0.0	0.0213	85.1	0.0232	92.7	61.4 - 130		8.5	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0222	88.7	0.0241	96.4	56.5 - 129		8.33	20	
trans-1,3-Dichloropropene	1	0.025	0.0	0.0258	103	0.0277	111	64.1 - 128		7.23	20	
Trichloroethene	1	0.025	0.0	0.0203	81.4	0.0225	89.8	44.1 - 149		9.91	20	
Vinyl chloride	1	0.025	0.0	0.0229	91.4	0.0244	97.6	47.8 - 137		6.49	20	
Xylenes, Total	1	0.075	0.0	0.0633	84.4	0.0707	94.3	63.3 - 131		11	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754919
Analysis Date:	11/21/2014 10:42:00 PM	Analyst:	644
Instrument ID:	VOCMS13		
Sample Numbers:	L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162		

Matrix Spike / Matrix Spike Duplicate

L733743-156

Analyte	Dil	Spike		Control				% Rec Qual	RPD	Control Limits	RPD
		Value	Sample	MS	% Rec	MSD	% Rec				
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0233	93.1	0.0237	95	64 - 128	1.96	20	
1,1,1-Trichloroethane	1	0.025	0.0	0.0218	87	0.0233	93.3	58.7 - 134	6.9	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0256	102	0.0242	96.8	56 - 132	5.49	22.2	
1,1,2-Trichloroethane	1	0.025	0.0	0.0233	93.1	0.0230	92	66.3 - 125	1.2	20	
1,1-Dichloroethane	1	0.025	0.0	0.0226	90.4	0.0226	90.5	58.5 - 132	0.18	20	
1,1-Dichloroethene	1	0.025	0.0	0.0204	81.8	0.0215	85.8	51.1 - 140	4.83	20.2	
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0222	88.7	0.0236	94.5	57.4 - 137	6.41	20	
1,2-Dibromoethane	1	0.025	0.0	0.0255	102	0.0242	96.6	67.1 - 125	5.32	20	
1,2-Dichloroethane	1	0.025	0.0	0.0253	101	0.0235	93.9	60 - 126	7.6	20	
1,2-Dichloropropane	1	0.025	0.0	0.0240	96	0.0229	91.5	64.2 - 123	4.8	20	
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0225	90	0.0242	96.8	63.6 - 132	7.37	20.5	
2-Butanone (MEK)	1	0.125	0.0	0.1828	146	0.1538	123	22.4 - 138	J5 17.2	27	
2-Hexanone	1	0.125	0.0	0.1362	109	0.1221	97.7	43.3 - 137	10.9	25.5	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1449	116	0.1250	100	60.8 - 140	14.8	25.1	
Acetone	1	0.125	0.0098	0.1422	106	0.1207	88.8	10 - 130	16.4	27.9	
Benzene	1	0.025	0.0	0.0226	90.6	0.0226	90.6	54.3 - 133	0	20	
Bromodichloromethane	1	0.025	0.0	0.0242	96.8	0.0232	92.7	63.9 - 121	4.34	20	
Bromoform	1	0.025	0.0	0.0285	114	0.0258	103	59.5 - 134	10.1	20.5	
Bromomethane	1	0.025	0.0	0.0228	91.2	0.0223	89.2	41.7 - 155	2.18	21.9	
Carbon disulfide	1	0.025	0.0	0.0170	68	0.0177	70.9	43.3 - 149	4.22	20.3	
Carbon tetrachloride	1	0.025	0.0	0.0218	87	0.0232	92.8	55.7 - 134	6.47	20	
Chlorobenzene	1	0.025	0.0	0.0229	91.6	0.0242	96.7	67 - 125	5.42	20	
Chlorodibromomethane	1	0.025	0.0	0.0256	102	0.0254	102	64.3 - 125	0.64	20.8	
Chloroethane	1	0.025	0.0	0.0222	89	0.0238	95.4	51.5 - 136	6.91	40	
Chloroform	1	0.025	0.0	0.0225	90.2	0.0230	92.1	63 - 129	2.04	20	
Chloromethane	1	0.025	0.0	0.0191	76.6	0.0196	78.2	42.4 - 135	2.07	20	
cis-1,2-Dichloroethene	1	0.025	0.0	0.0230	92.2	0.0222	88.8	59.2 - 129	3.7	20	
cis-1,3-Dichloropropene	1	0.025	0.0	0.0252	101	0.0237	94.7	66.4 - 125	6.07	20	
Ethylbenzene	1	0.025	0.0	0.0215	85.9	0.0236	94.4	61.4 - 133	9.42	20	
Isopropylbenzene	1	0.025	0.0	0.0215	85.8	0.0234	93.6	66.8 - 141	8.71	20	
m&p-Xylenes	1	0.05	0.0	0.0436	87.1	0.0467	93.4	61.7 - 133	6.93	20	
Methyl tert-butyl ether	1	0.025	0.0	0.0255	102	0.0231	92.6	57.7 - 134	9.53	20	
Methylene Chloride	1	0.025	0.0	0.0223	89.2	0.0218	87.2	58.1 - 122	2.23	20	
Naphthalene	1	0.025	0.0	0.0277	111	0.0252	101	58 - 135	9.2	25.5	
n-Butylbenzene	1	0.025	0.0	0.0222	88.7	0.0235	93.9	62.7 - 140	5.69	20.3	
n-Propylbenzene	1	0.025	0.0	0.0222	88.6	0.0242	96.8	65.9 - 131	8.82	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754919
Analysis Date:	11/21/2014 10:42:00 PM	Analyst:	644
Instrument ID:	VOCMS13		
Sample Numbers:	L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162		

Matrix Spike / Matrix Spike Duplicate

L733743-156

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
o-Xylene	1	0.025	0.0	0.0218	87.4	0.0234	93.7	63.3 - 130	7.03	20		
p-Isopropyltoluene	1	0.025	0.0	0.0226	90.5	0.0249	99.7	63.2 - 139	9.57	20.4		
sec-Butylbenzene	1	0.025	0.0	0.0221	88.4	0.0244	97.7	62.2 - 136	9.94	20.3		
Styrene	1	0.025	0.0	0.0251	101	0.0256	102	66.8 - 133	1.63	20		
Tetrachloroethene	1	0.025	0.0	0.0211	84.4	0.0230	92.1	53 - 139	8.67	20		
Toluene	1	0.025	0.0	0.0224	89.4	0.0225	90.1	61.4 - 130	0.78	20		
trans-1,2-Dichloroethene	1	0.025	0.0	0.0218	87.3	0.0229	91.7	56.5 - 129	4.96	20		
trans-1,3-Dichloropropene	1	0.025	0.0	0.0266	106	0.0233	93.3	64.1 - 128	13	20		
Trichloroethene	1	0.025	0.0	0.0228	91.2	0.0236	94.3	44.1 - 149	3.36	20		
Vinyl chloride	1	0.025	0.0	0.0205	81.9	0.0213	85	47.8 - 137	3.71	20		
Xylenes, Total	1	0.075	0.0	0.0654	87.2	0.0701	93.5	63.3 - 131	6.97	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Matrix Spike / Matrix Spike Duplicate

L733584-01

Analyte	Dil	Spike		Control				% Rec Qual	RPD	Control Limits	RPD	Control Limits	RPD
		Value	Sample	MS	% Rec	MSD	% Rec						
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0286	114	0.0265	106	64 - 128	7.62	20			
1,1,1-Trichloroethane	1	0.025	0.0	0.0246	98.6	0.0214	85.7	58.7 - 134	13.9	20			
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0278	111	0.0275	110	56 - 132	0.9	22.2			
1,1,2-Trichloroethane	1	0.025	0.0	0.0272	109	0.0260	104	66.3 - 125	4.74	20			
1,1-Dichloroethane	1	0.025	0.0	0.0226	90.5	0.0205	81.8	58.5 - 132	10	20			
1,1-Dichloroethene	1	0.025	0.0	0.0197	78.9	0.0168	67.3	51.1 - 140	15.8	20.2			
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0267	107	0.0247	98.8	57.4 - 137	7.66	20			
1,2-Dibromoethane	1	0.025	0.0	0.0287	115	0.0269	108	67.1 - 125	6.6	20			
1,2-Dichloroethane	1	0.025	0.0	0.0207	83	0.0201	80.4	60 - 126	3.18	20			
1,2-Dichloropropane	1	0.025	0.0	0.0256	102	0.0234	93.6	64.2 - 123	8.84	20			
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0269	108	0.0239	95.6	63.6 - 132	11.9	20.5			
2-Butanone (MEK)	1	0.125	0.0	0.1062	84.9	0.1102	88.1	22.4 - 138	3.7	27			
2-Hexanone	1	0.125	0.0	0.1448	116	0.1421	114	43.3 - 137	1.85	25.5			
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1350	108	0.1330	106	60.8 - 140	1.53	25.1			
Acetone	1	0.125	0.0042	0.0873	66.5	0.0913	69.7	10 - 130	4.44	27.9			
Benzene	1	0.025	0.0	0.0228	91.2	0.0206	82.4	54.3 - 133	10.2	20			
Bromodichloromethane	1	0.025	0.0	0.0243	97.1	0.0220	87.8	63.9 - 121	9.98	20			
Bromoform	1	0.025	0.0	0.0306	122	0.0290	116	59.5 - 134	5.51	20.5			
Bromomethane	1	0.025	0.0	0.0297	119	0.0241	96.2	41.7 - 155	20.9	21.9			
Carbon disulfide	1	0.025	0.0	0.0182	72.8	0.0158	63	43.3 - 149	14.4	20.3			
Carbon tetrachloride	1	0.025	0.0	0.0254	102	0.0218	87.1	55.7 - 134	15.4	20			
Chlorobenzene	1	0.025	0.0	0.0283	113	0.0256	102	67 - 125	10.2	20			
Chlorodibromomethane	1	0.025	0.0	0.0287	115	0.0272	109	64.3 - 125	5.19	20.8			
Chloroethane	1	0.025	0.0	0.0257	103	0.0226	90.2	51.5 - 136	13	40			
Chloroform	1	0.025	0.0	0.0230	91.8	0.0212	84.8	63 - 129	7.99	20			
Chloromethane	1	0.025	0.0	0.0187	74.8	0.0162	64.8	42.4 - 135	14.4	20			
cis-1,2-Dichloroethene	1	0.025	0.0	0.0240	96.2	0.0219	87.8	59.2 - 129	9.12	20			
cis-1,3-Dichloropropene	1	0.025	0.0	0.0252	101	0.0226	90.3	66.4 - 125	11	20			
Ethylbenzene	1	0.025	0.0	0.0278	111	0.0247	98.6	61.4 - 133	12	20			
Isopropylbenzene	1	0.025	0.0	0.0284	114	0.0250	100	66.8 - 141	12.6	20			
m&p-Xylenes	1	0.05	0.0	0.0556	111	0.0498	99.5	61.7 - 133	11.1	20			
Methyl tert-butyl ether	1	0.025	0.0	0.0225	90.1	0.0222	88.7	57.7 - 134	1.57	20			
Methylene Chloride	1	0.025	0.0	0.0237	95	0.0223	89.1	58.1 - 122	6.36	20			
Naphthalene	1	0.025	0.0	0.0241	96.3	0.0239	95.8	58 - 135	0.51	25.5			
n-Butylbenzene	1	0.025	0.0	0.0247	98.9	0.0223	89.3	62.7 - 140	10.2	20.3			
n-Propylbenzene	1	0.025	0.0	0.0283	113	0.0250	100	65.9 - 131	12.3	20			

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Matrix Spike / Matrix Spike Duplicate

L733584-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
o-Xylene	1	0.025	0.0	0.0269	107	0.0237	94.8	63.3 - 130		12.5	20	
p-Isopropyltoluene	1	0.025	0.0	0.0301	120	0.0267	107	63.2 - 139		12.1	20.4	
sec-Butylbenzene	1	0.025	0.0	0.0295	118	0.0262	105	62.2 - 136		12	20.3	
Styrene	1	0.025	0.0	0.0274	109	0.0251	100	66.8 - 133		8.52	20	
Tetrachloroethene	1	0.025	0.0	0.0319	128	0.0274	109	53 - 139		15.3	20	
Toluene	1	0.025	0.0	0.0281	112	0.0242	96.7	61.4 - 130		14.9	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0227	91	0.0204	81.7	56.5 - 129		10.7	20	
trans-1,3-Dichloropropene	1	0.025	0.0	0.0269	107	0.0246	98.6	64.1 - 128		8.67	20	
Trichloroethene	1	0.025	0.0	0.0281	112	0.0245	98.1	44.1 - 149		13.6	20	
Vinyl chloride	1	0.025	0.0	0.0178	71	0.0149	59.6	47.8 - 137		17.5	20	
Xylenes, Total	1	0.075	0.0	0.0825	110	0.0735	98	63.3 - 131		11.6	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755673
Analysis Date:	11/21/2014 8:51:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-106, -107, -110, -115		

Matrix Spike / Matrix Spike Duplicate

L734213-01

Analyte	Dil	Spike		Control				% Rec Qual	RPD	Control Limits	RPD
		Value	Sample	MS	% Rec	MSD	% Rec				
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0252	101	0.0280	112	64 - 128	10.4	20	
1,1,1-Trichloroethane	1	0.025	0.0	0.0228	91.3	0.0246	98.2	58.7 - 134	7.3	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0240	96.2	0.0274	110	56 - 132	13	22.2	
1,1,2-Trichloroethane	1	0.025	0.0	0.0239	95.4	0.0268	107	66.3 - 125	11.6	20	
1,1-Dichloroethane	1	0.025	0.0	0.0208	83.2	0.0225	89.8	58.5 - 132	7.72	20	
1,1-Dichloroethene	1	0.025	0.0	0.0209	83.7	0.0218	87.2	51.1 - 140	4.15	20.2	
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0236	94.4	0.0264	105	57.4 - 137	11.1	20	
1,2-Dibromoethane	1	0.025	0.0	0.0253	101	0.0281	112	67.1 - 125	10.4	20	
1,2-Dichloroethane	1	0.025	0.0	0.0193	77.2	0.0214	85.6	60 - 126	10.3	20	
1,2-Dichloropropane	1	0.025	0.0	0.0220	88.1	0.0246	98.4	64.2 - 123	11	20	
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0241	96.5	0.0268	107	63.6 - 132	10.4	20.5	
2-Butanone (MEK)	1	0.125	0.0	0.0968	77.5	0.1128	90.3	22.4 - 138	15.3	27	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1171	93.7	0.1330	106	60.8 - 140	12.7	25.1	
Acetone	1	0.125	0.0041	0.0891	68	0.1139	87.8	10 - 130	24.4	27.9	
Benzene	1	0.025	0.0	0.0213	85.2	0.0235	94.2	54.3 - 133	10.1	20	
Bromodichloromethane	1	0.025	0.0013	0.0225	84.7	0.0249	94.2	63.9 - 121	10.1	20	
Bromoform	1	0.025	0.0041	0.0308	107	0.0342	120	59.5 - 134	10.5	20.5	
Bromomethane	1	0.025	0.0	0.0280	112	0.0279	112	41.7 - 155	0.1	21.9	
Carbon disulfide	1	0.025	0.0	0.0238	95	0.0248	99.2	43.3 - 149	4.26	20.3	
Carbon tetrachloride	1	0.025	0.0	0.0235	94.2	0.0252	101	55.7 - 134	6.85	20	
Chlorobenzene	1	0.025	0.0	0.0246	98.3	0.0282	113	67 - 125	13.6	20	
Chlorodibromomethane	1	0.025	0.0041	0.0284	97.3	0.0321	112	64.3 - 125	12.3	20.8	
Chloroethane	1	0.025	0.0	0.0275	110	0.0264	106	51.5 - 136	3.87	40	
Chloroform	1	0.025	0.0004	0.0213	83.9	0.0232	91.5	63 - 129	8.52	20	
Chloromethane	1	0.025	0.0	0.0197	78.8	0.0213	85.3	42.4 - 135	7.82	20	
cis-1,2-Dichloroethene	1	0.025	0.0	0.0223	89.2	0.0245	97.8	59.2 - 129	9.15	20	
cis-1,3-Dichloropropene	1	0.025	0.0	0.0217	86.8	0.0244	97.4	66.4 - 125	11.6	20	
Ethylbenzene	1	0.025	0.0	0.0246	98.3	0.0279	112	61.4 - 133	12.7	20	
Isopropylbenzene	1	0.025	0.0	0.0253	101	0.0283	113	66.8 - 141	11	20	
m&p-Xylenes	1	0.05	0.0	0.0499	99.9	0.0554	111	61.7 - 133	10.4	20	
Methyl tert-butyl ether	1	0.025	0.0	0.0203	81.1	0.0228	91.3	57.7 - 134	11.9	20	
Methylene Chloride	1	0.025	0.0005	0.0231	90.6	0.0252	99	58.1 - 122	8.69	20	
Naphthalene	1	0.025	0.0	0.0218	87.3	0.0248	99.2	58 - 135	12.8	25.5	
n-Butylbenzene	1	0.025	0.0	0.0224	89.5	0.0244	97.5	62.7 - 140	8.56	20.3	
n-Propylbenzene	1	0.025	0.0	0.0251	101	0.0277	111	65.9 - 131	9.85	20	
o-Xylene	1	0.025	0.0	0.0241	96.6	0.0269	108	63.3 - 130	10.8	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755673
Analysis Date:	11/21/2014 8:51:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-106, -107, -110, -115		

Matrix Spike / Matrix Spike Duplicate

L734213-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
p-Isopropyltoluene	1	0.025	0.0	0.0270	108	0.0300	120	63.2 - 139	10.7	20.4		
sec-Butylbenzene	1	0.025	0.0	0.0258	103	0.0291	116	62.2 - 136	11.9	20.3		
Styrene	1	0.025	0.0	0.0244	97.5	0.0265	106	66.8 - 133	8.37	20		
Tetrachloroethene	1	0.025	0.0	0.0290	116	0.0322	129	53 - 139	10.4	20		
Toluene	1	0.025	0.0	0.0247	98.7	0.0274	110	61.4 - 130	10.4	20		
trans-1,2-Dichloroethene	1	0.025	0.0	0.0232	92.9	0.0245	97.8	56.5 - 129	5.22	20		
trans-1,3-Dichloropropene	1	0.025	0.0	0.0219	87.5	0.0262	105	64.1 - 128	17.9	20		
Trichloroethene	1	0.025	0.0	0.0257	103	0.0283	113	44.1 - 149	9.41	20		
Vinyl chloride	1	0.025	0.0	0.0190	76	0.0193	77.1	47.8 - 137	1.43	20		
Xylenes, Total	1	0.075	0.0	0.0741	98.8	0.0823	110	63.3 - 131	10.5	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755736
Analysis Date:	11/20/2014 4:24:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145		

Matrix Spike / Matrix Spike Duplicate

L733686-01

Analyte	Dil	Spike		Control				% Rec Qual	RPD	Control		RPD
		Value	Sample	MS	% Rec	MSD	% Rec			Limits	Limits	
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0251	100	0.0234	93.4	64 - 128	7.23	20		
1,1,1-Trichloroethane	1	0.025	0.0	0.0285	114	0.0240	96	58.7 - 134	17.2	20		
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0266	106	0.0254	102	56 - 132	4.48	22.2		
1,1,2-Trichloroethane	1	0.025	0.0	0.0263	105	0.0253	101	66.3 - 125	3.79	20		
1,1-Dichloroethane	1	0.025	0.0	0.0278	111	0.0244	97.5	58.5 - 132	13.1	20		
1,1-Dichloroethene	1	0.025	0.0	0.0234	93.6	0.0201	80.4	51.1 - 140	15.1	20.2		
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0238	95.2	0.0220	88.2	57.4 - 137	7.71	20		
1,2-Dibromoethane	1	0.025	0.0	0.0235	94.1	0.0225	90.1	67.1 - 125	4.37	20		
1,2-Dichloroethane	1	0.025	0.0	0.0245	98	0.0226	90.5	60 - 126	8	20		
1,2-Dichloropropane	1	0.025	0.0013	0.0266	101	0.0239	90.7	64.2 - 123	10.6	20		
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0253	101	0.0232	93	63.6 - 132	8.6	20.5		
2-Butanone (MEK)	1	0.125	0.0	0.1494	120	0.1339	107	22.4 - 138	10.9	27		
2-Hexanone	1	0.125	0.0	0.1349	108	0.1275	102	43.3 - 137	5.63	25.5		
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1345	108	0.1255	100	60.8 - 140	6.98	25.1		
Acetone	1	0.125	0.0038	0.1166	90.2	0.1061	81.8	10 - 130	9.42	27.9		
Benzene	1	0.025	0.1307	0.1488	72.4	0.1405	39.2	54.3 - 133	V	5.74	20	
Bromodichloromethane	1	0.025	0.0	0.0243	97.1	0.0225	90.2	63.9 - 121	7.34	20		
Bromoform	1	0.025	0.0	0.0230	91.8	0.0226	90.5	59.5 - 134	1.44	20.5		
Bromomethane	1	0.025	0.0	0.0344	138	0.0296	118	41.7 - 155	15	21.9		
Carbon disulfide	1	0.025	0.0	0.0188	75.1	0.0159	63.6	43.3 - 149	16.6	20.3		
Carbon tetrachloride	1	0.025	0.0	0.0268	107	0.0228	91.3	55.7 - 134	15.8	20		
Chlorobenzene	1	0.025	0.0	0.0247	98.8	0.0230	92	67 - 125	7.1	20		
Chlorodibromomethane	1	0.025	0.0	0.0234	93.4	0.0227	90.6	64.3 - 125	3.04	20.8		
Chloroethane	1	0.025	0.0	0.0264	106	0.0237	94.7	51.5 - 136	10.9	40		
Chloroform	1	0.025	0.0087	0.0352	106	0.0322	94.1	63 - 129	8.98	20		
Chloromethane	1	0.025	0.0	0.0197	78.9	0.0169	67.5	42.4 - 135	15.6	20		
cis-1,2-Dichloroethene	1	0.025	0.0	0.0252	101	0.0228	91.2	59.2 - 129	9.92	20		
cis-1,3-Dichloropropene	1	0.025	0.0	0.0248	99.2	0.0233	93.1	66.4 - 125	6.35	20		
Ethylbenzene	1	0.025	0.0	0.0250	100	0.0229	91.6	61.4 - 133	8.87	20		
Isopropylbenzene	1	0.025	0.0	0.0256	103	0.0234	93.5	66.8 - 141	9.24	20		
m&p-Xylenes	1	0.05	0.0	0.0491	98.2	0.0454	90.8	61.7 - 133	7.85	20		
Methyl tert-butyl ether	1	0.025	0.0015	0.0286	109	0.0263	99.2	57.7 - 134	8.61	20		
Methylene Chloride	1	0.025	0.0008	0.0263	102	0.0235	90.7	58.1 - 122	11.2	20		
Naphthalene	1	0.025	0.0	0.0270	108	0.0256	102	58 - 135	5.64	25.5		
n-Butylbenzene	1	0.025	0.0	0.0285	114	0.0259	104	62.7 - 140	9.55	20.3		
n-Propylbenzene	1	0.025	0.0	0.0258	103	0.0236	94.4	65.9 - 131	9.01	20		



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG755736**
 Analysis Date: 11/20/2014 4:24:00 PM Analyst: 644
 Instrument ID: VOCMS6
 Sample Numbers: L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145

Matrix Spike / Matrix Spike Duplicate

L733686-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
o-Xylene	1	0.025	0.0	0.0255	102	0.0232	92.9	63.3 - 130		9.21	20	
p-Isopropyltoluene	1	0.025	0.0	0.0256	102	0.0234	93.6	63.2 - 139		8.94	20.4	
sec-Butylbenzene	1	0.025	0.0	0.0265	106	0.0238	95.3	62.2 - 136		10.7	20.3	
Styrene	1	0.025	0.0	0.0249	99.6	0.0233	93.2	66.8 - 133		6.59	20	
Tetrachloroethene	1	0.025	0.0	0.0245	98.1	0.0224	89.4	53 - 139		9.28	20	
Toluene	1	0.025	0.0	0.0245	98	0.0221	88.3	61.4 - 130		10.4	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0245	98	0.0214	85.5	56.5 - 129		13.7	20	
trans-1,3-Dichloropropene	1	0.025	0.0	0.0225	89.8	0.0219	87.5	64.1 - 128		2.55	20	
Trichloroethene	1	0.025	0.0	0.0255	102	0.0225	90	44.1 - 149		12.6	20	
Vinyl chloride	1	0.025	0.0	0.0238	95	0.0194	77.8	47.8 - 137		20	20	
Xylenes, Total	1	0.075	0.0	0.0746	99.4	0.0686	91.5	63.3 - 131		8.31	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Matrix Spike / Matrix Spike Duplicate

L733818-01

Analyte	Dil	Spike		MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
		Value	Sample									
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0213	85.2	0.0201	80.3	64 - 128		5.92	20	
1,1,1-Trichloroethane	1	0.025	0.0	0.0235	93.9	0.0228	91.1	58.7 - 134		3.03	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0004	0.0216	84.7	0.0210	82.5	56 - 132		2.59	22.2	
1,1,2-Trichloroethane	1	0.025	0.0019	0.0226	82.8	0.0203	73.5	66.3 - 125		10.8	20	
1,1-Dichloroethane	1	0.025	0.0	0.0209	83.7	0.0194	77.6	58.5 - 132		7.65	20	
1,1-Dichloroethene	1	0.025	0.0	0.0209	83.6	0.0193	77.2	51.1 - 140		7.95	20.2	
1,2,4-Trimethylbenzene	1	0.025	0.0004	0.0213	83.9	0.0203	79.6	57.4 - 137		5.21	20	
1,2-Dibromoethane	1	0.025	0.0	0.0209	83.5	0.0190	76	67.1 - 125		9.43	20	
1,2-Dichloroethane	1	0.025	0.0	0.0201	80.3	0.0183	73.2	60 - 126		9.22	20	
1,2-Dichloropropane	1	0.025	0.0013	0.0221	83.5	0.0193	72	64.2 - 123		13.9	20	
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0218	87.2	0.0209	83.8	63.6 - 132		4.06	20.5	
2-Butanone (MEK)	1	0.125	0.0062	0.0901	67.1	0.0877	65.2	22.4 - 138		2.72	27	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1058	84.7	0.1052	84.1	60.8 - 140		0.64	25.1	
Acetone	1	0.125	0.0147	0.0914	61.3	0.0936	63.1	10 - 130		2.37	27.9	
Benzene	1	0.025	0.0	0.0213	85.2	0.0192	76.9	54.3 - 133		10.2	20	
Bromodichloromethane	1	0.025	0.0005	0.0214	83.5	0.0187	72.7	63.9 - 121		13.4	20	
Bromoform	1	0.025	0.0	0.0218	87.2	0.0204	81.7	59.5 - 134		6.5	20.5	
Bromomethane	1	0.025	0.0	0.0219	87.6	0.0204	81.7	41.7 - 155		6.97	21.9	
Carbon tetrachloride	1	0.025	0.0	0.0214	85.8	0.0203	81	55.7 - 134		5.66	20	
Chlorobenzene	1	0.025	0.0	0.0220	88.1	0.0197	79	67 - 125		11	20	
Chlorodibromomethane	1	0.025	0.0	0.0206	82.3	0.0184	73.6	64.3 - 125		11.1	20.8	
Chloroethane	1	0.025	0.0	0.0235	93.9	0.0218	87.2	51.5 - 136		7.41	40	
Chloroform	1	0.025	0.0	0.0217	86.7	0.0201	80.3	63 - 129		7.66	20	
Chloromethane	1	0.025	0.0	0.0155	62	0.0158	63.2	42.4 - 135		1.84	20	
cis-1,2-Dichloroethene	1	0.025	0.0	0.0214	85.8	0.0201	80.3	59.2 - 129		6.51	20	
cis-1,3-Dichloropropene	1	0.025	0.0	0.0217	86.9	0.0189	75.7	66.4 - 125		13.7	20	
Ethylbenzene	1	0.025	0.0030	0.0252	88.6	0.0229	79.7	61.4 - 133		9.25	20	
Isopropylbenzene	1	0.025	0.0288	0.0535	99.1	0.0509	88.4	66.8 - 141		5.12	20	
m&p-Xylenes	1	0.05	0.0	0.0446	89.1	0.0402	80.3	61.7 - 133		10.4	20	
Methyl tert-butyl ether	1	0.025	0.0	0.0212	84.9	0.0207	82.6	57.7 - 134		2.74	20	
Methylene Chloride	1	0.025	0.0	0.0203	81.2	0.0191	76.6	58.1 - 122		5.86	20	
Naphthalene	1	0.025	0.1027	0.1288	104	0.1295	107	58 - 135		0.56	25.5	
n-Butylbenzene	1	0.025	0.0105	0.0328	89.1	0.0299	77.3	62.7 - 140		9.42	20.3	
n-Propylbenzene	1	0.025	0.0964	0.1270	122	0.1215	101	65.9 - 131		4.4	20	
o-Xylene	1	0.025	0.0	0.0210	84.1	0.0196	78.5	63.3 - 130		6.87	20	
p-Isopropyltoluene	1	0.025	0.0	0.0225	90	0.0217	87	63.2 - 139		3.45	20.4	

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Matrix Spike / Matrix Spike Duplicate

L733818-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
sec-Butylbenzene	1	0.025	0.0081	0.0305	89.9	0.0295	85.6	62.2 - 136		3.56	20.3	
Styrene	1	0.025	0.0	0.0220	88.1	0.0195	78.2	66.8 - 133		11.9	20	
Tetrachloroethene	1	0.025	0.0	0.0241	96.6	0.0215	85.9	53 - 139		11.7	20	
Toluene	1	0.025	0.0006	0.0223	87	0.0201	78.2	61.4 - 130		10.3	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0217	86.9	0.0206	82.2	56.5 - 129		5.45	20	
trans-1,3-Dichloropropene	1	0.025	0.0033	0.0224	76.7	0.0194	64.6	64.1 - 128		14.5	20	
Trichloroethene	1	0.025	0.0	0.0236	94.4	0.0219	87.6	44.1 - 149		7.56	20	
Vinyl chloride	1	0.025	0.0	0.0202	80.8	0.0190	76.2	47.8 - 137		5.89	20	
Xylenes, Total	1	0.075	0.0	0.0656	87.4	0.0598	79.7	63.3 - 131		9.24	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Matrix Spike / Matrix Spike Duplicate

L733847-05

Analyte	Dil	Spike		Control				% Rec Qual	RPD	Control Limits	RPD	Control Limits	RPD
		Value	Sample	MS	% Rec	MSD	% Rec						
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0252	101	0.0278	111	64 - 128	9.84		20		
1,1,1-Trichloroethane	1	0.025	0.0	0.0226	90.5	0.0254	102	58.7 - 134	11.4		20		
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0251	100	0.0278	111	56 - 132	10.3		22.2		
1,1,2-Trichloroethane	1	0.025	0.0	0.0253	101	0.0280	112	66.3 - 125	10.2		20		
1,1-Dichloroethane	1	0.025	0.0	0.0232	93	0.0259	104	58.5 - 132	11		20		
1,1-Dichloroethene	1	0.025	0.0	0.0240	96.2	0.0267	107	51.1 - 140	10.4		20.2		
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0247	98.8	0.0270	108	57.4 - 137	8.85		20		
1,2-Dibromoethane	1	0.025	0.0	0.0262	105	0.0287	115	67.1 - 125	9.15		20		
1,2-Dichloroethane	1	0.025	0.0	0.0185	74.1	0.0213	85.4	60 - 126	14.2		20		
1,2-Dichloropropane	1	0.025	0.0	0.0235	94	0.0265	106	64.2 - 123	12.1		20		
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0255	102	0.0274	110	63.6 - 132	7.38		20.5		
2-Butanone (MEK)	1	0.125	0.0016	0.1104	87	0.1310	103	22.4 - 138	17.1		27		
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1244	99.6	0.1451	116	60.8 - 140	15.3		25.1		
Acetone	1	0.125	0.0825	0.2349	122	0.2592	141	10 - 130	J5 9.83		27.9		
Benzene	1	0.025	0.0	0.0230	92	0.0254	102	54.3 - 133	9.93		20		
Bromodichloromethane	1	0.025	0.0	0.0228	91.2	0.0251	100	63.9 - 121	9.52		20		
Bromoform	1	0.025	0.0	0.0246	98.4	0.0275	110	59.5 - 134	11.1		20.5		
Bromomethane	1	0.025	0.0	0.0151	60.3	0.0184	73.6	41.7 - 155	19.8		21.9		
Carbon tetrachloride	1	0.025	0.0	0.0230	91.9	0.0255	102	55.7 - 134	10.3		20		
Chlorobenzene	1	0.025	0.0	0.0247	98.8	0.0263	105	67 - 125	6.26		20		
Chlorodibromomethane	1	0.025	0.0	0.0253	101	0.0283	113	64.3 - 125	11.3		20.8		
Chloroethane	1	0.025	0.0	0.0140	55.9	0.0159	63.5	51.5 - 136	12.7		40		
Chloroform	1	0.025	0.0	0.0224	89.6	0.0245	98.1	63 - 129	9.04		20		
Chloromethane	1	0.025	0.0	0.0238	95.4	0.0263	105	42.4 - 135	9.63		20		
cis-1,2-Dichloroethene	1	0.025	0.0	0.0233	93	0.0261	105	59.2 - 129	11.6		20		
cis-1,3-Dichloropropene	1	0.025	0.0	0.0243	97.3	0.0278	111	66.4 - 125	13.2		20		
Ethylbenzene	1	0.025	0.0	0.0251	100	0.0267	107	61.4 - 133	6.33		20		
Isopropylbenzene	1	0.025	0.0	0.0261	105	0.0284	114	66.8 - 141	8.35		20		
m&p-Xylenes	1	0.05	0.0006	0.0517	102	0.0562	111	61.7 - 133	8.33		20		
Methyl tert-butyl ether	1	0.025	0.0	0.0226	90.6	0.0259	103	57.7 - 134	13.3		20		
Methylene Chloride	1	0.025	0.0	0.0229	91.8	0.0258	103	58.1 - 122	11.9		20		
Naphthalene	1	0.025	0.0003	0.0297	117	0.0345	137	58 - 135	J5 15.1		25.5		
n-Butylbenzene	1	0.025	0.0	0.0278	111	0.0302	121	62.7 - 140	8.1		20.3		
n-Propylbenzene	1	0.025	0.0	0.0259	104	0.0281	112	65.9 - 131	8		20		
o-Xylene	1	0.025	0.0	0.0271	108	0.0299	120	63.3 - 130	9.87		20		
p-Isopropyltoluene	1	0.025	0.0	0.0248	99.3	0.0267	107	63.2 - 139	7.14		20.4		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Matrix Spike / Matrix Spike Duplicate

L733847-05

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
sec-Butylbenzene	1	0.025	0.0	0.0251	100	0.0274	109	62.2 - 136	8.52	20.3		
Styrene	1	0.025	0.0	0.0258	103	0.0286	114	66.8 - 133	10.2	20		
Tetrachloroethene	1	0.025	0.0133	0.0385	101	0.0408	110	53 - 139	5.79	20		
Toluene	1	0.025	0.0	0.0227	90.8	0.0254	102	61.4 - 130	11.4	20		
trans-1,2-Dichloroethene	1	0.025	0.0	0.0249	99.7	0.0279	112	56.5 - 129	11.4	20		
trans-1,3-Dichloropropene	1	0.025	0.0	0.0242	96.9	0.0267	107	64.1 - 128	9.63	20		
Trichloroethene	1	0.025	0.0018	0.0270	101	0.0294	110	44.1 - 149	8.5	20		
Vinyl chloride	1	0.025	0.0	0.0212	84.8	0.0240	95.8	47.8 - 137	12.2	20		
Xylenes, Total	1	0.075	0.0006	0.0788	104	0.0861	114	63.3 - 131	8.87	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Matrix Spike / Matrix Spike Duplicate

L734135-06

Analyte	Dil	Spike		Control				% Rec Qual	RPD	Control Limits	RPD	Qual
		Value	Sample	MS	% Rec	MSD	% Rec					
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0227	90.9	0.0227	90.9	64 - 128	0.02	20		
1,1,1-Trichloroethane	1	0.025	0.0	0.0308	123	0.0303	121	58.7 - 134	1.49	20		
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0263	105	0.0261	104	56 - 132	1.02	22.2		
1,1,2-Trichloroethane	1	0.025	0.0	0.0256	103	0.0249	99.8	66.3 - 125	2.75	20		
1,1-Dichloroethane	1	0.025	0.0	0.0304	121	0.0305	122	58.5 - 132	0.58	20		
1,1-Dichloroethene	1	0.025	0.0	0.0321	128	0.0320	128	51.1 - 140	0.28	20.2		
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0245	98	0.0236	94.5	57.4 - 137	3.62	20		
1,2-Dibromoethane	1	0.025	0.0	0.0248	99.4	0.0246	98.2	67.1 - 125	1.2	20		
1,2-Dichloroethane	1	0.025	0.0	0.0307	123	0.0307	123	60 - 126	0.11	20		
1,2-Dichloropropane	1	0.025	0.0011	0.0275	106	0.0275	105	64.2 - 123	0.17	20		
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0248	99.1	0.0241	96.4	63.6 - 132	2.76	20.5		
2-Butanone (MEK)	1	0.125	0.0008	0.1524	121	0.1561	124	22.4 - 138	2.39	27		
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1436	115	0.1427	114	60.8 - 140	0.57	25.1		
Acetone	1	0.125	0.0056	0.1380	106	0.1412	109	10 - 130	2.32	27.9		
Benzene	1	0.025	0.0	0.0281	112	0.0283	113	54.3 - 133	0.86	20		
Bromodichloromethane	1	0.025	0.0033	0.0306	109	0.0308	110	63.9 - 121	0.56	20		
Bromoform	1	0.025	0.0	0.0210	84	0.0218	87.1	59.5 - 134	3.61	20.5		
Bromomethane	1	0.025	0.0	0.0270	108	0.0276	110	41.7 - 155	2.06	21.9		
Carbon tetrachloride	1	0.025	0.0	0.0285	114	0.0284	114	55.7 - 134	0.26	20		
Chlorobenzene	1	0.025	0.0	0.0244	97.5	0.0240	95.8	67 - 125	1.79	20		
Chlorodibromomethane	1	0.025	0.0	0.0246	98.4	0.0245	98.1	64.3 - 125	0.34	20.8		
Chloroethane	1	0.025	0.0	0.0298	119	0.0298	119	51.5 - 136	0.01	40		
Chloroform	1	0.025	0.0172	0.0461	115	0.0474	121	63 - 129	2.9	20		
Chloromethane	1	0.025	0.0	0.0255	102	0.0262	105	42.4 - 135	2.79	20		
cis-1,2-Dichloroethene	1	0.025	0.0	0.0283	113	0.0278	111	59.2 - 129	1.88	20		
Ethylbenzene	1	0.025	0.0	0.0250	99.9	0.0239	95.7	61.4 - 133	4.2	20		
Isopropylbenzene	1	0.025	0.0	0.0246	98.6	0.0241	96.3	66.8 - 141	2.3	20		
m&p-Xylenes	1	0.05	0.0	0.0489	97.9	0.0474	94.8	61.7 - 133	3.21	20		
Methyl tert-butyl ether	1	0.025	0.0	0.0288	115	0.0289	115	57.7 - 134	0.09	20		
Methylene Chloride	1	0.025	0.0	0.0264	106	0.0265	106	58.1 - 122	0.38	20		
Naphthalene	1	0.025	0.0	0.0261	104	0.0259	104	58 - 135	0.48	25.5		
n-Butylbenzene	1	0.025	0.0	0.0305	122	0.0294	118	62.7 - 140	3.74	20.3		
n-Propylbenzene	1	0.025	0.0	0.0256	102	0.0249	99.7	65.9 - 131	2.5	20		
o-Xylene	1	0.025	0.0	0.0245	98.1	0.0239	95.8	63.3 - 130	2.41	20		
p-Isopropyltoluene	1	0.025	0.0	0.0236	94.5	0.0230	92.2	63.2 - 139	2.52	20.4		
sec-Butylbenzene	1	0.025	0.0	0.0248	99.2	0.0243	97.3	62.2 - 136	2.02	20.3		



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Matrix Spike / Matrix Spike Duplicate

L734135-06

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Styrene	1	0.025	0.0	0.0245	98	0.0242	96.7	66.8 - 133		1.34	20	
Tetrachloroethene	1	0.025	0.0	0.0221	88.4	0.0218	87	53 - 139		1.58	20	
Toluene	1	0.025	0.0005	0.0265	104	0.0263	103	61.4 - 130		0.67	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0263	105	0.0265	106	56.5 - 129		1	20	
Trichloroethene	1	0.025	0.0	0.0243	97.2	0.0241	96.3	44.1 - 149		0.94	20	
Vinyl chloride	1	0.025	0.0	0.0279	112	0.0282	113	47.8 - 137		0.94	20	
Xylenes, Total	1	0.075	0.0	0.0735	97.9	0.0713	95.1	63.3 - 131		2.94	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Matrix Spike / Matrix Spike Duplicate

L733743-158

Analyte	Dil	Spike		Control				% Rec Qual	RPD	Control Limits	RPD	Control Limits	RPD
		Value	Sample	MS	% Rec	MSD	% Rec						
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0239	95.5	0.0233	93.2	64 - 128	2.42	20			
1,1,1-Trichloroethane	1	0.025	0.0	0.0252	101	0.0243	97.4	58.7 - 134	3.4	20			
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0268	107	0.0254	102	56 - 132	5.42	22.2			
1,1,2-Trichloroethane	1	0.025	0.0	0.0264	106	0.0247	99	66.3 - 125	6.51	20			
1,1-Dichloroethane	1	0.025	0.0	0.0251	100	0.0242	96.7	58.5 - 132	3.74	20			
1,1-Dichloroethene	1	0.025	0.0	0.0202	80.7	0.0192	76.9	51.1 - 140	4.92	20.2			
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0228	91.2	0.0218	87.3	57.4 - 137	4.42	20			
1,2-Dibromoethane	1	0.025	0.0	0.0231	92.5	0.0223	89.4	67.1 - 125	3.41	20			
1,2-Dichloroethane	1	0.025	0.0	0.0232	92.7	0.0218	87.1	60 - 126	6.18	20			
1,2-Dichloropropane	1	0.025	0.0	0.0251	101	0.0244	97.5	64.2 - 123	3.11	20			
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0242	96.8	0.0230	92	63.6 - 132	5.05	20.5			
2-Butanone (MEK)	1	0.125	0.0	0.1456	116	0.1377	110	22.4 - 138	5.53	27			
2-Hexanone	1	0.125	0.0	0.1381	110	0.1267	101	43.3 - 137	8.59	25.5			
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1307	105	0.1256	101	60.8 - 140	3.96	25.1			
Acetone	1	0.125	0.0021	0.1136	89.2	0.1097	86.1	10 - 130	3.52	27.9			
Benzene	1	0.025	0.0	0.0240	96.1	0.0231	92.4	54.3 - 133	3.9	20			
Bromodichloromethane	1	0.025	0.0	0.0228	91.1	0.0224	89.5	63.9 - 121	1.74	20			
Bromoform	1	0.025	0.0	0.0228	91	0.0217	86.9	59.5 - 134	4.7	20.5			
Bromomethane	1	0.025	0.0	0.0320	128	0.0311	124	41.7 - 155	2.88	21.9			
Carbon disulfide	1	0.025	0.0	0.0145	58	0.0139	55.4	43.3 - 149	4.55	20.3			
Carbon tetrachloride	1	0.025	0.0	0.0228	91.3	0.0220	88	55.7 - 134	3.74	20			
Chlorobenzene	1	0.025	0.0	0.0237	94.9	0.0229	91.5	67 - 125	3.7	20			
Chlorodibromomethane	1	0.025	0.0	0.0234	93.7	0.0225	90	64.3 - 125	4.03	20.8			
Chloroethane	1	0.025	0.0	0.0232	92.9	0.0226	90.4	51.5 - 136	2.69	40			
Chloroform	1	0.025	0.0	0.0250	100	0.0241	96.3	63 - 129	3.95	20			
Chloromethane	1	0.025	0.0	0.0172	68.8	0.0166	66.4	42.4 - 135	3.5	20			
cis-1,2-Dichloroethene	1	0.025	0.0	0.0228	91.1	0.0221	88.4	59.2 - 129	2.97	20			
cis-1,3-Dichloropropene	1	0.025	0.0	0.0230	92.1	0.0226	90.3	66.4 - 125	1.99	20			
Ethylbenzene	1	0.025	0.0	0.0234	93.5	0.0221	88.4	61.4 - 133	5.57	20			
Isopropylbenzene	1	0.025	0.0	0.0240	96	0.0227	90.9	66.8 - 141	5.42	20			
m&p-Xylenes	1	0.05	0.0	0.0460	92	0.0437	87.4	61.7 - 133	5.21	20			
Methyl tert-butyl ether	1	0.025	0.0	0.0260	104	0.0242	96.7	57.7 - 134	7.32	20			
Methylene Chloride	1	0.025	0.0	0.0234	93.7	0.0224	89.5	58.1 - 122	4.56	20			
Naphthalene	1	0.025	0.0	0.0256	102	0.0252	101	58 - 135	1.72	25.5			
n-Butylbenzene	1	0.025	0.0	0.0261	104	0.0254	102	62.7 - 140	2.59	20.3			
n-Propylbenzene	1	0.025	0.0	0.0242	96.9	0.0230	92	65.9 - 131	5.23	20			



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Matrix Spike / Matrix Spike Duplicate

L733743-158

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
o-Xylene	1	0.025	0.0	0.0242	96.8	0.0226	90.2	63.3 - 130	7.01	20		
p-Isopropyltoluene	1	0.025	0.0	0.0242	96.8	0.0231	92.3	63.2 - 139	4.82	20.4		
sec-Butylbenzene	1	0.025	0.0	0.0248	99.1	0.0236	94.5	62.2 - 136	4.76	20.3		
Styrene	1	0.025	0.0	0.0232	92.7	0.0225	90.2	66.8 - 133	2.79	20		
Tetrachloroethene	1	0.025	0.0	0.0215	85.8	0.0207	82.7	53 - 139	3.72	20		
Toluene	1	0.025	0.0	0.0221	88.2	0.0217	86.6	61.4 - 130	1.82	20		
trans-1,2-Dichloroethene	1	0.025	0.0	0.0210	83.8	0.0202	80.8	56.5 - 129	3.65	20		
trans-1,3-Dichloropropene	1	0.025	0.0	0.0217	86.7	0.0223	89.1	64.1 - 128	2.78	20		
Trichloroethene	1	0.025	0.0	0.0221	88.6	0.0219	87.5	44.1 - 149	1.16	20		
Vinyl chloride	1	0.025	0.0	0.0190	75.9	0.0185	73.8	47.8 - 137	2.73	20		
Xylenes, Total	1	0.075	0.0	0.0702	93.6	0.0662	88.3	63.3 - 131	5.83	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Internal Standard Response and Retention Time Summary

File ID: 1118_02
 Analyzed: 11/18/14 093300

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	353813	8.21	741049	4.67	127022	5.83	406943	4.33
Upper Limit	708000	8.71	1480000	5.17	254000	6.33	814000	4.83
Lower Limit	177000	7.71	371000	4.17	63500	5.33	203000	3.83
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-16	312467	8.22	756219	4.67	120093	5.83	403047	4.34
L733743-17	306742	8.22	759637	4.67	120953	5.83	390356	4.33
L733743-18	304002	8.22	749766	4.67	119735	5.83	393872	4.34
L733743-19	299516	8.22	769402	4.67	120802	5.83	398290	4.34
L733743-20	299127	8.22	737003	4.67	116393	5.83	376962	4.34
L733743-01	300678	8.22	740259	4.67	119685	5.83	380157	4.34
L733743-02	299843	8.22	749033	4.67	120913	5.83	394355	4.34
L733743-03	303670	8.22	756898	4.67	123492	5.83	391784	4.34
L733743-04	303333	8.22	750730	4.67	120515	5.83	388704	4.34
L733743-05	305869	8.22	770638	4.67	122217	5.83	393226	4.34
MSD WG754786	359692	8.21	746292	4.67	130189	5.83	406736	4.33
MS WG754786	329205	8.22	693833	4.67	119336	5.83	382246	4.34
LCSD WG754786	342111	8.21	725955	4.67	121231	5.83	395550	4.33
LCS WG754786	352046	8.22	746679	4.67	125768	5.83	414703	4.34
BLANK WG754786	306059	8.22	692735	4.67	108988	5.83	365986	4.34

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Internal Standard Response and Retention Time Summary

File ID: 1118_31
Analyzed: 11/18/14 191600

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	352396	8.21	828935	4.67	136452	5.83	455349	4.34
Upper Limit	705000	8.71	1660000	5.17	273000	6.33	911000	4.84
Lower Limit	176000	7.71	414000	4.17	68200	5.33	228000	3.84
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-21	313004	8.22	783702	4.67	122965	5.83	406662	4.34
MSD WG754787	364010	8.21	852505	4.67	138071	5.83	450081	4.33
MS WG754787	374476	8.22	848313	4.67	142019	5.83	458777	4.34
LCSD WG754787	350806	8.21	791162	4.67	131521	5.83	430595	4.34
LCS WG754787	354039	8.22	775571	4.67	126659	5.83	432156	4.34
BLANK WG754787	315720	8.22	807497	4.67	127212	5.83	412152	4.34

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754909**
 Analysis Date: 11/21/2014 11:52:00 AM Analyst: 644
 Instrument ID: VOCMS20
 Sample Numbers: L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44

Internal Standard Response and Retention Time Summary

File ID: 1121_02
Analyzed: 11/21/14 071400

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	190836	8.22	413536	4.67	68737	5.84	238940	4.34
Upper Limit	382000	8.72	827000	5.17	137000	6.34	478000	4.84
Lower Limit	95400	7.72	207000	4.17	34400	5.34	119000	3.84
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-25	176122	8.22	391196	4.67	64031	5.84	212156	4.34
L733743-29	193475	8.22	408713	4.67	67790	5.84	220787	4.34
L733743-30	189373	8.22	397437	4.67	66833	5.84	216954	4.34
L733743-31	191328	8.22	409802	4.67	68904	5.84	222591	4.34
L733743-32	175038	8.22	372218	4.67	62255	5.84	199359	4.34
L733743-33	189881	8.22	399274	4.67	67446	5.84	216820	4.34
L733743-34	165464	8.22	333936	4.67	58383	5.84	181893	4.34
L733743-35	181406	8.22	392905	4.67	64624	5.84	213673	4.34
L733743-36	185556	8.22	402157	4.67	66172	5.84	219276	4.34
L733743-37	181099	8.22	394615	4.67	62995	5.84	213188	4.34
L733743-38	200639	8.22	430077	4.67	71123	5.84	230764	4.34
L733743-39	180244	8.22	380210	4.67	63418	5.84	208170	4.34
L733743-40	200939	8.22	432514	4.67	70344	5.84	235035	4.34
L733743-41	186189	8.22	414042	4.67	66996	5.84	224313	4.34
L733743-42	190298	8.22	412240	4.67	66201	5.84	222714	4.34
L733743-44	186643	8.22	407431	4.67	66872	5.84	222056	4.34
MSD WG754909	192499	8.22	403827	4.67	66061	5.84	226858	4.34
MS WG754909	181888	8.22	380998	4.67	65597	5.84	211292	4.34
LCSD WG754909	192837	8.22	413181	4.67	69508	5.84	231999	4.34
LCS WG754909	190509	8.22	410042	4.67	64952	5.84	229262	4.34
BLANK WG754909	174952	8.22	400983	4.67	64074	5.84	214792	4.34

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754914
Analysis Date:	11/17/2014 2:20:00 AM	Analyst:	644
Instrument ID:	VOCMS14		
Sample Numbers:	L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65		

Internal Standard Response and Retention Time Summary

File ID: 1116_34
Analyzed: 11/16/14 215200

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	195956	8.35	511217	4.79	67971	5.96	312653	4.45
Upper Limit	392000	8.85	1020000	5.29	136000	6.46	625000	4.95
Lower Limit	98000	7.85	256000	4.29	34000	5.46	156000	3.95
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-64	195342	8.34	510033	4.79	60807	5.95	293574	4.45
L733743-65	210979	8.34	521932	4.79	64960	5.95	303944	4.45
L733743-45	217825	8.34	551302	4.79	69515	5.95	313096	4.45
L733743-46	205910	8.34	535021	4.79	68203	5.95	300864	4.45
L733743-47	227690	8.34	608962	4.79	72139	5.95	341440	4.45
L733743-48	262840	8.34	671132	4.79	81906	5.95	384552	4.45
L733743-49	276337	8.34	747023	4.79	93949	5.95	421637	4.45
L733743-50	255042	8.34	671405	4.78	80516	5.95	382470	4.45
L733743-51	246861	8.34	651468	4.78	80139	5.95	369127	4.45
L733743-52	260154	8.34	623816	4.79	76194	5.95	344187	4.45
L733743-53	246701	8.34	637940	4.79	76834	5.95	342028	4.45
L733743-54	255265	8.34	646322	4.79	79168	5.95	371305	4.45
L733743-55	266670	8.34	676776	4.79	84464	5.95	388913	4.45
L733743-57	255502	8.34	654290	4.78	81397	5.95	376217	4.45
L733743-58	253915	8.34	651431	4.78	80865	5.95	361455	4.45
L733743-59	255891	8.34	634375	4.78	86073	5.95	363835	4.45
L733743-60	238312	8.34	598709	4.79	73327	5.95	352789	4.45
L733743-61	256207	8.34	664186	4.78	80694	5.95	383329	4.45
L733743-62	277705	8.34	711114	4.78	89010	5.95	407043	4.45
L733743-63	264829	8.34	672775	4.79	79067	5.95	376375	4.45
MSD WG754914	215961	8.34	519121	4.79	65422	5.95	302854	4.45
MS WG754914	238217	8.35	557693	4.79	75899	5.95	332673	4.45
LCSD WG754914	208711	8.34	547626	4.79	66781	5.95	317927	4.45
LCS WG754914	227040	8.34	586049	4.79	77408	5.96	353972	4.45
BLANK WG754914	202007	8.34	527455	4.79	63780	5.95	312076	4.45

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754915**
 Analysis Date: 11/19/2014 3:01:00 PM Analyst: 611
 Instrument ID: VOCMS25
 Sample Numbers: L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86

Internal Standard Response and Retention Time Summary

File ID: 1119_01
Analyzed: 11/19/14 091200

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	405237	7.65	914568	4.11	132891	5.25	521212	3.79
Upper Limit	810000	8.15	1830000	4.61	266000	5.75	1040000	4.29
Lower Limit	203000	7.15	457000	3.61	66400	4.75	261000	3.29
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-76	365960	7.66	803171	4.11	119415	5.26	467752	3.79
L733743-67	346797	7.66	746136	4.11	113053	5.26	434925	3.80
L733743-68	368903	7.66	797300	4.12	121003	5.26	462319	3.80
L733743-75	331244	7.66	711077	4.11	109787	5.26	425526	3.79
L733743-77	333502	7.66	724360	4.11	110238	5.26	428656	3.80
L733743-78	362471	7.66	772643	4.11	118246	5.26	463222	3.80
L733743-79	324186	7.66	708963	4.11	106104	5.25	425627	3.79
L733743-80	315825	7.66	691269	4.11	102013	5.26	417352	3.79
L733743-82	328298	7.66	708215	4.11	107606	5.25	427527	3.79
L733743-83	311500	7.66	685685	4.11	101305	5.26	415228	3.79
L733743-84	320086	7.66	697409	4.11	102090	5.26	420843	3.79
L733743-85	318629	7.66	682571	4.11	100847	5.26	414046	3.79
L733743-86	334075	7.66	727428	4.11	110130	5.26	431705	3.79
MSD WG754915	362703	7.66	762846	4.11	113476	5.26	438120	3.79
MS WG754915	379199	7.66	808760	4.11	121515	5.26	464148	3.79
LCSD WG754915	422422	7.66	913968	4.11	134469	5.25	521373	3.79
LCS WG754915	370833	7.66	792794	4.11	118779	5.25	456412	3.79
BLANK WG754915	353256	7.66	773569	4.11	115287	5.26	452317	3.80

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754917
Analysis Date:	11/19/2014 3:06:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125		

Internal Standard Response and Retention Time Summary

File ID: 1119_03
Analyzed: 11/19/14 100800

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	362031	8.28	773243	4.71	122288	5.89	470350	4.38
Upper Limit	724000	8.78	1550000	5.21	245000	6.39	941000	4.88
Lower Limit	181000	7.78	387000	4.21	61100	5.39	235000	3.88
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-115	364770	8.28	755312	4.71	124407	5.89	462428	4.38
L733743-106 50X	378357	8.28	783629	4.71	123481	5.89	486728	4.38
L733743-108	378411	8.28	783456	4.71	126851	5.89	488396	4.38
L733743-109 50X	390778	8.28	799890	4.71	128776	5.89	502487	4.38
L733743-111 250X	386247	8.28	800737	4.71	127341	5.89	498215	4.38
L733743-112 10X	383000	8.28	807748	4.71	125227	5.89	498574	4.38
L733743-114 10X	387755	8.28	795274	4.71	128588	5.89	511019	4.38
L733743-116	384039	8.28	802492	4.71	130460	5.89	486850	4.38
L733743-117	391002	8.28	786679	4.71	129856	5.89	490554	4.38
L733743-118	385313	8.28	778593	4.71	126642	5.89	521685	4.38
L733743-119	389759	8.28	811629	4.71	131995	5.89	507273	4.38
L733743-120	397860	8.28	822239	4.71	132655	5.89	506153	4.38
L733743-121	389929	8.28	809992	4.71	130586	5.89	499890	4.38
L733743-122	388406	8.28	800375	4.71	128600	5.89	490441	4.38
L733743-123	392827	8.28	810901	4.71	129266	5.89	502197	4.38
L733743-124	394466	8.28	797975	4.71	125734	5.89	491605	4.38
L733743-125	392050	8.28	804812	4.71	123283	5.89	496125	4.38
L733743-113	386248	8.28	800617	4.71	129603	5.89	487542	4.38
L733743-107 10X	382125	8.28	788544	4.71	124286	5.89	502757	4.38
MSD WG754917	371047	8.28	783380	4.71	126352	5.89	479269	4.38
MS WG754917	370749	8.28	796702	4.71	127661	5.89	487107	4.38
LCSD WG754917	361733	8.28	766017	4.71	117847	5.89	470281	4.38
LCS WG754917	359390	8.28	777225	4.71	121674	5.89	471566	4.38
BLANK WG754917	368449	8.28	785515	4.71	122586	5.89	489281	4.38

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754918
Analysis Date:	11/20/2014 5:53:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141		

Internal Standard Response and Retention Time Summary

File ID: 1120_02
Analyzed: 11/20/14 024200

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	361217	8.22	845531	4.67	142877	5.83	465058	4.34
Upper Limit	722000	8.72	1690000	5.17	286000	6.33	930000	4.84
Lower Limit	181000	7.72	423000	4.17	71400	5.33	233000	3.84
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-126	348685	8.22	838778	4.67	129114	5.83	444992	4.34
L733743-127	320975	8.22	783335	4.67	125752	5.83	402576	4.34
L733743-128	353605	8.22	871639	4.67	136924	5.83	423906	4.33
L733743-129	334762	8.22	834719	4.67	126041	5.83	449245	4.34
L733743-130	318373	8.22	788893	4.67	123688	5.83	405343	4.34
L733743-131	330888	8.22	809796	4.67	123515	5.83	444707	4.34
L733743-132	325037	8.22	800043	4.67	126031	5.83	414604	4.34
L733743-133	321763	8.22	768644	4.67	119632	5.83	401516	4.34
L733743-134	312315	8.22	740154	4.67	118884	5.83	382997	4.34
L733743-135	320795	8.22	797313	4.67	123093	5.83	437768	4.33
L733743-136	324808	8.22	788966	4.67	123958	5.83	415912	4.34
L733743-137	322443	8.22	778192	4.67	117839	5.83	432191	4.34
L733743-138	337166	8.22	810599	4.67	124309	5.83	443682	4.34
L733743-139	336201	8.22	832223	4.67	126039	5.83	445912	4.34
L733743-140	337694	8.22	799291	4.67	125599	5.83	439738	4.34
L733743-141	319814	8.22	815842	4.67	128339	5.83	442609	4.34
MSD WG754918	362278	8.22	845962	4.67	138527	5.83	449136	4.34
MS WG754918	362224	8.22	835903	4.67	138907	5.83	452125	4.34
LCSD WG754918	353085	8.22	809146	4.67	131986	5.83	435708	4.34
LCS WG754918	365328	8.22	845275	4.67	141294	5.83	457267	4.34
BLANK WG754918	320773	8.22	777886	4.67	120647	5.83	407401	4.34

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754919**
 Analysis Date: 11/21/2014 10:42:00 PM Analyst: 644
 Instrument ID: VOCMS13
 Sample Numbers: L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162

Internal Standard Response and Retention Time Summary

File ID: 1121_03
Analyzed: 11/21/14 135200

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	358492	8.14	981999	4.63	125873	5.78	620940	4.30
Upper Limit	717000	8.64	1960000	5.13	252000	6.28	1240000	4.80
Lower Limit	179000	7.64	491000	4.13	62900	5.28	310000	3.80
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-161	491615	8.14	1007550	4.62	145065	5.77	613845	4.30
L733743-162	402897	8.14	953924	4.63	132992	5.78	583528	4.30
L733743-156	364278	8.14	931851	4.63	120400	5.78	607648	4.30
L733743-146	343124	8.14	937757	4.63	114525	5.78	601430	4.30
L733743-147	324123	8.14	863533	4.63	108079	5.78	550473	4.30
L733743-149	313799	8.14	842519	4.63	102275	5.78	538049	4.30
L733743-151	317849	8.14	873285	4.63	105436	5.78	555295	4.30
L733743-152	314476	8.14	857929	4.63	101857	5.78	552240	4.30
L733743-153	334362	8.14	897830	4.63	111900	5.78	563097	4.30
L733743-154	387226	8.14	961625	4.63	126602	5.78	616380	4.30
L733743-155	335565	8.14	852442	4.63	108831	5.78	543781	4.30
L733743-157	332712	8.14	907782	4.63	110813	5.78	581929	4.30
MSD WG754919	343553	8.14	907937	4.63	114893	5.78	564313	4.30
MS WG754919	391331	8.14	1015649	4.62	135947	5.77	633572	4.30
LCSD WG754919	326897	8.14	868694	4.63	113046	5.78	547302	4.30
LCS WG754919	357866	8.14	928324	4.62	121519	5.78	581364	4.30
BLANK WG754919	349328	8.14	946376	4.63	118557	5.78	604742	4.30

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Internal Standard Response and Retention Time Summary

File ID: 1121_32
Analyzed: 11/21/14 161500

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	395915	7.65	835462	4.10	122260	5.24	508385	3.79
Upper Limit	792000	8.15	1670000	4.60	245000	5.74	1020000	4.29
Lower Limit	198000	7.15	418000	3.60	61100	4.74	254000	3.29
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-06	326119	7.65	686390	4.10	106830	5.25	418696	3.78
L733743-07	324128	7.65	684178	4.10	104080	5.25	415033	3.79
L733743-08	324110	7.65	700305	4.10	104223	5.25	417211	3.78
L733743-09	324129	7.65	692766	4.10	103750	5.25	411041	3.78
L733743-10	311929	7.65	662463	4.10	99368	5.25	402813	3.78
L733743-11	338882	7.65	723034	4.10	109739	5.25	434348	3.78
L733743-12	330880	7.65	700706	4.10	107799	5.25	423802	3.78
MSD WG755340	351924	7.65	743638	4.10	109372	5.25	455716	3.78
MS WG755340	416685	7.65	870834	4.11	130172	5.25	551889	3.79
LCSD WG755340	363946	7.65	773844	4.10	115112	5.24	470880	3.78
LCS WG755340	367890	7.65	786034	4.10	114756	5.24	485702	3.78
BLANK WG755340	325135	7.65	708599	4.10	106439	5.25	431326	3.79

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755673
Analysis Date:	11/21/2014 8:51:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-106, -107, -110, -115		

Internal Standard Response and Retention Time Summary

File ID: 1121_02
Analyzed: 11/21/14 035100

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	374731	7.65	778321	4.10	112172	5.24	479076	3.78
Upper Limit	749000	8.15	1560000	4.60	224000	5.74	958000	4.28
Lower Limit	187000	7.15	389000	3.60	56100	4.74	240000	3.28
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-106 500X	374977	7.65	814978	4.10	117828	5.24	503010	3.78
L733743-107 200X	410585	7.65	878752	4.10	128012	5.24	543117	3.79
L733743-110 25X	342965	7.65	729537	4.10	107357	5.24	452084	3.78
L733743-115 10X	332897	7.65	722113	4.10	106930	5.24	448723	3.78
MSD WG755673	364951	7.65	759877	4.10	112350	5.24	476485	3.78
MS WG755673	374977	7.65	789781	4.10	117243	5.24	493064	3.78
LCSD WG755673	377933	7.65	774746	4.10	116708	5.24	487560	3.78
LCS WG755673	376478	7.65	779363	4.10	116110	5.25	478931	3.78
BLANK WG755673	352983	7.65	770030	4.10	111888	5.24	469297	3.78

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG755736**
 Analysis Date: 11/20/2014 4:24:00 PM Analyst: 644
 Instrument ID: VOCMS6
 Sample Numbers: L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145

Internal Standard Response and Retention Time Summary

File ID: 1120_05
Analyzed: 11/20/14 081600

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	188423	8.10	432506	4.58	68944	5.73	230842	4.25
Upper Limit	377000	8.60	865000	5.08	138000	6.23	462000	4.75
Lower Limit	94200	7.60	216000	4.08	34500	5.23	115000	3.75
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-114	180935	8.10	413092	4.58	64204	5.73	227498	4.25
L733743-142	174099	8.10	400125	4.58	61325	5.73	204028	4.25
L733743-143	183378	8.10	419154	4.58	64872	5.73	216924	4.25
L733743-144	177087	8.10	422000	4.58	66082	5.73	219433	4.25
L733743-145	191977	8.10	451582	4.58	67868	5.73	254947	4.25
L733743-69	180596	8.10	424348	4.58	64710	5.73	229263	4.25
L733743-70	160435	8.10	379499	4.58	58820	5.73	213182	4.25
L733743-71	179768	8.10	419920	4.58	66674	5.73	236845	4.25
L733743-72	172399	8.10	410127	4.58	63823	5.73	223183	4.25
L733743-73	184714	8.10	439868	4.58	66996	5.73	236680	4.25
L733743-74	182121	8.10	420899	4.58	64728	5.73	229762	4.25
L733743-81	185584	8.10	437169	4.58	68114	5.73	243544	4.25
MSD WG755736	170404	8.10	418829	4.58	64403	5.73	225149	4.25
MSD WG755736	178149	8.10	405276	4.58	66546	5.73	213526	4.25
MS WG755736	165129	8.10	402058	4.58	62353	5.73	215876	4.25
MS WG755736	176124	8.10	425404	4.58	71408	5.73	221206	4.25
LCSD WG755736	182502	8.10	432734	4.58	70590	5.73	234815	4.25
LCSD WG755736	181596	8.10	442512	4.58	66688	5.73	240014	4.25
LCS WG755736	187476	8.10	430508	4.58	69570	5.73	230840	4.25
LCS WG755736	179782	8.10	417888	4.58	64182	5.73	227501	4.25
BLANK WG755736	185850	8.10	441230	4.58	68502	5.73	251525	4.25

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Internal Standard Response and Retention Time Summary

File ID: 1121_02
 Analyzed: 11/21/14 074700

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	234115	7.78	488750	4.22	82995	5.37	278941	3.90
Upper Limit	468000	8.28	978000	4.72	166000	5.87	558000	4.40
Lower Limit	117000	7.28	244000	3.72	41500	4.87	139000	3.40
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-128	234943	7.78	483521	4.22	80707	5.37	277969	3.90
L733743-135	240726	7.78	493609	4.22	83397	5.37	278413	3.90
L733743-137	238487	7.78	492221	4.22	83113	5.37	280907	3.90
L733743-138	226236	7.78	467005	4.22	78133	5.37	264853	3.90
L733743-139	227141	7.78	458393	4.22	77311	5.37	263534	3.90
L733743-142	219105	7.78	447094	4.22	75617	5.37	260469	3.90
L733743-143	252992	7.78	521802	4.22	87014	5.37	300560	3.90
L733743-144	222900	7.78	450330	4.22	75721	5.37	259084	3.90
MSD WG755901	222004	7.78	446283	4.22	80774	5.37	255845	3.90
MS WG755901	220260	7.78	475275	4.22	86700	5.37	268821	3.90
LCSD WG755901	239544	7.78	501977	4.22	84757	5.37	284006	3.90
LCS WG755901	201055	7.78	416835	4.22	70733	5.37	237738	3.90
BLANK WG755901	245626	7.78	500262	4.22	84836	5.37	283689	3.90

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Internal Standard Response and Retention Time Summary

File ID: 1122_31
Analyzed: 11/22/14 120300

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	367062	8.28	779992	4.71	122497	5.89	481663	4.38
Upper Limit	734000	8.78	1560000	5.21	245000	6.39	963000	4.88
Lower Limit	184000	7.78	390000	4.21	61200	5.39	241000	3.88
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-13	375520	8.28	795800	4.71	122598	5.89	500854	4.38
L733743-14	370274	8.28	794654	4.71	121261	5.89	505078	4.38
L733743-15	369046	8.28	787990	4.71	119397	5.89	498505	4.38
L733743-26	367014	8.28	788117	4.71	121661	5.89	498659	4.38
L733743-27	365257	8.28	788710	4.71	123177	5.89	497889	4.38
L733743-28	347060	8.28	756081	4.71	116851	5.89	476977	4.38
MSD WG756231	337192	8.28	744494	4.71	116175	5.89	464784	4.38
MS WG756231	345019	8.28	770707	4.71	117998	5.89	481988	4.38
LCSD WG756231	362125	8.28	787711	4.71	118367	5.89	485521	4.38
LCS WG756231	363675	8.28	782612	4.71	120149	5.89	495967	4.38
BLANK WG756231	371259	8.28	802836	4.71	121709	5.89	503515	4.38

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Internal Standard Response and Retention Time Summary

File ID: 1123_32
Analyzed: 11/23/14 123200

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	288397	8.05	745474	4.52	129284	5.67	371670	4.19
Upper Limit	577000	8.55	1490000	5.02	259000	6.17	743000	4.69
Lower Limit	144000	7.55	373000	4.02	64600	5.17	186000	3.69
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-97	285706	8.05	746609	4.52	134797	5.67	388337	4.19
MSD WG756371	289620	8.05	752346	4.52	132469	5.67	376719	4.19
MS WG756371	286038	8.05	745587	4.52	129763	5.67	378038	4.19
LCSD WG756371	295785	8.05	757240	4.52	133528	5.67	388788	4.19
LCS WG756371	298350	8.05	762257	4.52	133152	5.67	385958	4.19
BLANK WG756371	279093	8.05	754185	4.52	131635	5.67	390985	4.19

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
IS2 -- 1,4-DIFLUOROBENZENE
IS3 -- 2-BROMO-1-CHLOROPROPANE
IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Internal Standard Response and Retention Time Summary

File ID: 1123_37
Analyzed: 11/23/14 173400

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	187428	8.10	441757	4.58	69040	5.73	238578	4.25
Upper Limit	375000	8.60	884000	5.08	138000	6.23	477000	4.75
Lower Limit	93700	7.60	221000	4.08	34500	5.23	119000	3.75
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-158	185733	8.10	444992	4.58	67574	5.73	245884	4.25
L733743-148	184521	8.10	431106	4.58	67278	5.73	240104	4.25
L733743-150	181238	8.10	436345	4.58	66744	5.73	244248	4.25
L733743-159	188013	8.10	439447	4.58	67982	5.73	244022	4.25
L733743-160	191965	8.10	446971	4.58	69391	5.73	247199	4.25
MSD WG756413	176532	8.10	430520	4.58	66713	5.73	235820	4.25
MS WG756413	176788	8.10	433210	4.58	65201	5.73	232266	4.25
LCSD WG756413	182699	8.10	440694	4.58	67225	5.73	238863	4.25
LCS WG756413	178907	8.10	430831	4.58	67640	5.73	231833	4.25
BLANK WG756413	190492	8.10	460249	4.58	69268	5.73	254215	4.25

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
IS2 -- 1,4-DIFLUOROBENZENE
IS3 -- 2-BROMO-1-CHLOROPROPANE
IS1 -- PENTAFLUOROBENZENE



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
			ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-01	VOCMS2	1118_15	0.0383	95.7	0.0397	99.4	0.0433	108		
L733743-02	VOCMS2	1118_16	0.0369	92.3	0.0394	98.5	0.0436	109		
L733743-03	VOCMS2	1118_17	0.0368	92.1	0.0398	99.6	0.0435	109		
L733743-04	VOCMS2	1118_18	0.0373	93.2	0.0397	99.2	0.0428	107		
L733743-05	VOCMS2	1118_19	0.0378	94.5	0.0401	100	0.0428	107		
L733743-16	VOCMS2	1118_10	0.0394	98.6	0.0392	98.0	0.0429	107		
L733743-17	VOCMS2	1118_11	0.0381	95.1	0.0395	98.7	0.0424	106		
L733743-18	VOCMS2	1118_12	0.0385	96.2	0.0391	97.6	0.0429	107		
L733743-19	VOCMS2	1118_13	0.0378	94.6	0.0385	96.1	0.0425	106		
L733743-20	VOCMS2	1118_14	0.0387	96.8	0.0398	99.4	0.0429	107		
BLANK WG754786	VOCMS2	1118_09-2	0.0409	102	0.0404	101	0.0420	105	0.0409	102
LCS WG754786	VOCMS2	1118_03-2	0.0384	96.0	0.0429	107	0.0420	105	0.0430	107
LCSD WG754786	VOCMS2	1118_04-2	0.0392	98.0	0.0438	110	0.0421	105	0.0422	106
MS WG754786	VOCMS2	1118_06-2	0.0384	96.0	0.0435	109	0.0421	105	0.0420	105
MSD WG754786	VOCMS2	1118_07-2	0.0381	95.2	0.0444	111	0.0420	105	0.0417	104

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
			ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-21	VOCMS2	1118_43	0.0380	95.0	0.0386	96.5	0.0420	105		
BLANK WG754787	VOCMS2	1118_38-2	0.0366	91.4	0.0393	98.2	0.0419	105	0.0387	96.6
LCS WG754787	VOCMS2	1118_32-2	0.0373	93.1	0.0421	105	0.0414	103	0.0406	101
LCSD WG754787	VOCMS2	1118_33-2	0.0372	93.0	0.0411	103	0.0414	103	0.0402	100
MS WG754787	VOCMS2	1118_35-2	0.0370	92.5	0.0419	105	0.0416	104	0.0397	99.2
MSD WG754787	VOCMS2	1118_36-2	0.0374	93.6	0.0416	104	0.0418	105	0.0397	99.2

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754909
Analysis Date:	11/21/2014 11:52:00 AM	Analyst:	644
Instrument ID:	VOCMS20		
Sample Numbers:	L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44		

Surrogate Summary

Laboratory	Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
				ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
	L733743-25	VOCMS20	1121_11	0.0362	90.5	0.0370	92.5	0.0403	101		
	L733743-29	VOCMS20	1121_14	0.0378	94.5	0.0374	93.5	0.0400	100		
	L733743-30	VOCMS20	1121_15	0.0374	93.6	0.0369	92.3	0.0403	101		
	L733743-31	VOCMS20	1121_16	0.0358	89.5	0.0370	92.6	0.0398	99.6		
	L733743-32	VOCMS20	1121_17	0.0366	91.5	0.0366	91.5	0.0403	101		
	L733743-33	VOCMS20	1121_18	0.0371	92.7	0.0371	92.8	0.0405	101		
	L733743-34	VOCMS20	1121_19	0.0370	92.5	0.0373	93.2	0.0408	102		
	L733743-35	VOCMS20	1121_20	0.0366	91.5	0.0362	90.5	0.0400	99.9		
	L733743-36	VOCMS20	1121_21	0.0365	91.3	0.0358	89.6	0.0399	99.8		
	L733743-37	VOCMS20	1121_22	0.0385	96.3	0.0357	89.2	0.0393	98.2		
	L733743-38	VOCMS20	1121_23	0.0374	93.6	0.0367	91.7	0.0400	100		
	L733743-39	VOCMS20	1121_24	0.0372	93.1	0.0365	91.2	0.0400	100		
	L733743-40	VOCMS20	1121_25	0.0374	93.4	0.0362	90.4	0.0400	99.9		
	L733743-41	VOCMS20	1121_26	0.0374	93.4	0.0366	91.4	0.0400	100		
	L733743-42	VOCMS20	1121_27	0.0383	95.9	0.0363	90.8	0.0396	99.1		
	L733743-43	VOCMS20	1121_28	0.0367	91.9	0.0374	93.5	0.0401	100		
	L733743-44	VOCMS20	1121_29	0.0367	91.7	0.0369	92.3	0.0401	100		
	LCS WG754909	VOCMS20	1121_03	0.0366	91.6	0.0348	87.0	0.0394	98.4	0.0411	103
	LCSD WG754909	VOCMS20	1121_04	0.0345	86.2	0.0349	87.3	0.0394	98.5	0.0421	105
	MS WG754909	VOCMS20	1121_05	0.0353	88.3	0.0362	90.4	0.0399	99.8	0.0410	102
	MSD WG754909	VOCMS20	1121_06	0.0373	93.3	0.0365	91.2	0.0407	102	0.0419	105
	BLANK WG754909	VOCMS20	1121_09	0.0358	89.4	0.0361	90.2	0.0396	99.0	0.0420	105

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754914
Analysis Date:	11/17/2014 2:20:00 AM	Analyst:	644
Instrument ID:	VOCMS14		
Sample Numbers:	L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
			ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-45	VOCMS14	1116_45	0.0409	102	0.0425	106	0.0408	102		
L733743-46	VOCMS14	1116_46	0.0390	97.4	0.0421	105	0.0393	98.2		
L733743-47	VOCMS14	1116_47	0.0418	104	0.0420	105	0.0398	99.4		
L733743-48	VOCMS14	1116_48	0.0416	104	0.0428	107	0.0400	100		
L733743-49	VOCMS14	1116_49	0.0388	97.0	0.0403	101	0.0392	97.9		
L733743-50	VOCMS14	1116_50	0.0411	103	0.0420	105	0.0389	97.4		
L733743-51	VOCMS14	1116_51	0.0403	101	0.0428	107	0.0392	97.9		
L733743-52	VOCMS14	1116_52	0.0421	105	0.0445	111	0.0382	95.6		
L733743-53	VOCMS14	1116_53	0.0407	102	0.0443	111	0.0390	97.5		
L733743-54	VOCMS14	1116_54	0.0407	102	0.0409	102	0.0396	99.0		
L733743-55	VOCMS14	1116_55	0.0392	97.9	0.0406	102	0.0392	98.0		
L733743-57	VOCMS14	1116_56	0.0398	99.4	0.0406	101	0.0396	99.0		
L733743-58	VOCMS14	1116_57	0.0388	97.1	0.0426	107	0.0386	96.6		
L733743-59	VOCMS14	1116_58	0.0382	95.5	0.0425	106	0.0404	101		
L733743-60	VOCMS14	1116_59	0.0416	104	0.0407	102	0.0402	101		
L733743-61	VOCMS14	1116_60	0.0403	101	0.0412	103	0.0398	99.4		
L733743-62	VOCMS14	1116_61	0.0392	98.0	0.0428	107	0.0392	98.1		
L733743-63	VOCMS14	1116_62	0.0418	104	0.0436	109	0.0389	97.3		
L733743-64	VOCMS14	1116_43	0.0415	104	0.0405	101	0.0408	102		
L733743-65	VOCMS14	1116_44	0.0409	102	0.0404	101	0.0420	105		
LCS WG754914	VOCMS14	1116_36	0.0373	93.3	0.0404	101	0.0422	105	0.0404	101
LCSD WG754914	VOCMS14	1116_37	0.0387	96.8	0.0401	100	0.0412	103	0.0402	100
MS WG754914	VOCMS14	1116_38	0.0384	96.1	0.0423	106	0.0412	103	0.0393	98.4
MSD WG754914	VOCMS14	1116_39	0.0411	103	0.0415	104	0.0403	101	0.0399	99.8
BLANK WG754914	VOCMS14	1116_42	0.0410	103	0.0382	95.5	0.0410	102	0.0396	99.1

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754915
Analysis Date:	11/19/2014 3:01:00 PM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
			ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-67	VOCMS25	1119_11	0.0427	107	0.0416	104	0.0418	104		
L733743-68	VOCMS25	1119_12	0.0422	105	0.0410	103	0.0415	104		
L733743-75	VOCMS25	1119_19	0.0424	106	0.0411	103	0.0423	106		
L733743-76	VOCMS25	1119_10	0.0431	108	0.0415	104	0.0414	103		
L733743-77	VOCMS25	1119_20	0.0425	106	0.0412	103	0.0421	105		
L733743-78	VOCMS25	1119_21	0.0432	108	0.0402	100	0.0423	106		
L733743-79	VOCMS25	1119_22	0.0421	105	0.0409	102	0.0410	102		
L733743-80	VOCMS25	1119_23	0.0428	107	0.0409	102	0.0411	103		
L733743-82	VOCMS25	1119_25	0.0427	107	0.0397	99.2	0.0421	105		
L733743-83	VOCMS25	1119_26	0.0425	106	0.0398	99.5	0.0407	102		
L733743-84	VOCMS25	1119_27	0.0437	109	0.0401	100	0.0418	104		
L733743-85	VOCMS25	1119_28	0.0440	110	0.0398	99.4	0.0420	105		
L733743-86	VOCMS25	1119_29	0.0428	107	0.0396	99.0	0.0421	105		
LCS WG754915	VOCMS25	1119_03	0.0426	107	0.0412	103	0.0425	106	0.0435	109
LCSD WG754915	VOCMS25	1119_04	0.0427	107	0.0412	103	0.0414	104	0.0419	105
MS WG754915	VOCMS25	1119_06	0.0423	106	0.0415	104	0.0411	103	0.0426	106
MSD WG754915	VOCMS25	1119_07	0.0437	109	0.0411	103	0.0415	104	0.0428	107
BLANK WG754915	VOCMS25	1119_09	0.0427	107	0.0407	102	0.0419	105	0.0428	107

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754916
Analysis Date:	11/22/2014 3:10:00 AM	Analyst:	644
Instrument ID:	VOCMS7		
Sample Numbers:	L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105		

Surrogate Summary

Laboratory	Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
				ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
	L733743-100	VOCMS7	1121_41	0.0408	102	0.0388	96.9	0.0407	102		
	L733743-101	VOCMS7	1121_42	0.0410	102	0.0378	94.5	0.0402	101		
	L733743-102	VOCMS7	1121_43	0.0409	102	0.0382	95.5	0.0400	100		
	L733743-103	VOCMS7	1121_44	0.0419	105	0.0382	95.4	0.0399	99.8		
	L733743-104	VOCMS7	1121_45	0.0405	101	0.0380	95.1	0.0404	101		
	L733743-105	VOCMS7	1121_46	0.0405	101	0.0380	95.1	0.0401	100		
	L733743-66	VOCMS7	1121_47	0.0409	102	0.0381	95.3	0.0404	101		
	L733743-87	VOCMS7	1121_48	0.0419	105	0.0379	94.8	0.0400	100		
	L733743-88	VOCMS7	1121_49	0.0409	102	0.0384	96.1	0.0403	101		
	L733743-89	VOCMS7	1121_39	0.0413	103	0.0383	95.6	0.0399	99.6		
	L733743-90	VOCMS7	1121_50	0.0410	103	0.0378	94.5	0.0412	103		
	L733743-91	VOCMS7	1121_51	0.0415	104	0.0374	93.6	0.0401	100		
	L733743-92	VOCMS7	1121_52	0.0406	101	0.0370	92.4	0.0407	102		
	L733743-93	VOCMS7	1121_53	0.0410	103	0.0382	95.5	0.0406	101		
	L733743-94	VOCMS7	1121_54	0.0416	104	0.0384	95.9	0.0401	100		
	L733743-95	VOCMS7	1121_55	0.0418	104	0.0376	94.0	0.0398	99.6		
	L733743-96	VOCMS7	1121_56	0.0417	104	0.0376	93.9	0.0397	99.3		
	L733743-97	VOCMS7	1121_57	0.0409	102	0.0386	96.5	0.0408	102		
	L733743-98	VOCMS7	1121_58	0.0415	104	0.0379	94.9	0.0410	103		
	L733743-99	VOCMS7	1121_40	0.0409	102	0.0377	94.3	0.0403	101		
LCS	WG754916	VOCMS7	1121_32	0.0411	103	0.0387	96.7	0.0406	101	0.0430	108
LCSD	WG754916	VOCMS7	1121_33	0.0414	104	0.0379	94.7	0.0406	101	0.0429	107
MS	WG754916	VOCMS7	1121_34	0.0407	102	0.0376	93.9	0.0409	102	0.0434	109
MSD	WG754916	VOCMS7	1121_35	0.0408	102	0.0382	95.6	0.0404	101	0.0432	108
BLANK	WG754916	VOCMS7	1121_38	0.0408	102	0.0380	95.0	0.0401	100	0.0436	109

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754917
Analysis Date:	11/19/2014 3:06:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125		

Surrogate Summary

Laboratory	Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
				ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
	L733743-106 50x	VOCMS30	1119_13	0.0450	113	0.0392	98.1	0.0421	105		
	L733743-107 10x	VOCMS30	1119_14	0.0447	112	0.0375	93.7	0.0414	104		
	L733743-108	VOCMS30	1119_15	0.0443	111	0.0394	98.4	0.0419	105		
	L733743-109 50x	VOCMS30	1119_16	0.0438	110	0.0384	95.9	0.0417	104		
	L733743-111 250x	VOCMS30	1119_18	0.0445	111	0.0391	97.8	0.0416	104		
	L733743-112 10x	VOCMS30	1119_19	0.0450	112	0.0391	97.7	0.0413	103		
	L733743-113	VOCMS30	1119_20	0.0443	111	0.0395	98.7	0.0422	105		
	L733743-114 10x	VOCMS30	1119_21	0.0442	111	0.0373	93.3	0.0422	106		
	L733743-115	VOCMS30	1119_12	0.0436	109	0.0387	96.6	0.0422	105		
	L733743-116	VOCMS30	1119_22	0.0435	109	0.0391	97.6	0.0413	103		
	L733743-117	VOCMS30	1119_23	0.0443	111	0.0395	98.8	0.0428	107		
	L733743-118	VOCMS30	1119_24	0.0448	112	0.0361	90.3	0.0419	105		
	L733743-119	VOCMS30	1119_25	0.0436	109	0.0392	98.1	0.0416	104		
	L733743-120	VOCMS30	1119_26	0.0440	110	0.0399	99.7	0.0416	104		
	L733743-121	VOCMS30	1119_27	0.0423	106	0.0392	98.0	0.0415	104		
	L733743-122	VOCMS30	1119_28	0.0437	109	0.0395	98.8	0.0410	102		
	L733743-123	VOCMS30	1119_29	0.0436	109	0.0395	98.6	0.0415	104		
	L733743-124	VOCMS30	1119_30	0.0449	112	0.0395	98.7	0.0416	104		
	L733743-125	VOCMS30	1119_31	0.0462	115	0.0391	97.9	0.0413	103		
	LCS WG754917	VOCMS30	1119_05	0.0443	111	0.0388	97.1	0.0415	104	0.0426	106
	LCSD WG754917	VOCMS30	1119_07	0.0454	113	0.0392	97.9	0.0416	104	0.0430	107
	MS WG754917	VOCMS30	1119_08	0.0437	109	0.0386	96.5	0.0414	104	0.0427	107
	MSD WG754917	VOCMS30	1119_09	0.0434	108	0.0389	97.4	0.0418	104	0.0424	106
	BLANK WG754917	VOCMS30	1119_11	0.0436	109	0.0388	97.1	0.0409	102	0.0428	107

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754918
Analysis Date:	11/20/2014 5:53:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141		

Surrogate Summary

Laboratory	Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
				ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
	L733743-126	VOCMS2	1120_10	0.0398	99.6	0.0401	100	0.0413	103		
	L733743-127	VOCMS2	1120_11	0.0372	93.1	0.0411	103	0.0418	105		
	L733743-128	VOCMS2	1120_12	0.0379	94.9	0.0423	106	0.0411	103		
	L733743-129	VOCMS2	1120_13	0.0393	98.2	0.0378	94.4	0.0411	103		
	L733743-130	VOCMS2	1120_14	0.0377	94.2	0.0401	100	0.0415	104		
	L733743-131	VOCMS2	1120_15	0.0388	96.9	0.0365	91.3	0.0419	105		
	L733743-132	VOCMS2	1120_16	0.0379	94.7	0.0395	98.9	0.0417	104		
	L733743-133	VOCMS2	1120_17	0.0388	97.1	0.0397	99.3	0.0417	104		
	L733743-134	VOCMS2	1120_18	0.0381	95.3	0.0412	103	0.0418	104		
	L733743-135	VOCMS2	1120_19	0.0384	96.1	0.0370	92.6	0.0417	104		
	L733743-136	VOCMS2	1120_20	0.0378	94.4	0.0396	99.1	0.0415	104		
	L733743-137	VOCMS2	1120_21	0.0395	98.9	0.0371	92.7	0.0412	103		
	L733743-138	VOCMS2	1120_22	0.0394	98.5	0.0378	94.5	0.0413	103		
	L733743-139	VOCMS2	1120_23	0.0394	98.5	0.0374	93.4	0.0415	104		
	L733743-140	VOCMS2	1120_24	0.0383	95.8	0.0375	93.8	0.0419	105		
	L733743-141	VOCMS2	1120_25	0.0373	93.3	0.0369	92.1	0.0425	106		
	BLANK WG754918	VOCMS2	1120_09-2	0.0382	95.5	0.0396	99.0	0.0416	104	0.0393	98.1
	LCS WG754918	VOCMS2	1120_03-2	0.0365	91.2	0.0417	104	0.0416	104	0.0399	99.8
	LCSD WG754918	VOCMS2	1120_04-2	0.0366	91.5	0.0417	104	0.0410	103	0.0396	99.0
	MS WG754918	VOCMS2	1120_06-2	0.0367	91.8	0.0411	103	0.0423	106	0.0407	102
	MSD WG754918	VOCMS2	1120_07-2	0.0375	93.7	0.0421	105	0.0422	105	0.0394	98.4

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754919
Analysis Date:	11/21/2014 10:42:00 PM	Analyst:	644
Instrument ID:	VOCMS13		
Sample Numbers:	L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162		

Surrogate Summary

Laboratory	Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
				ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
	L733743-146	VOCMS13	1121_17	0.0402	101	0.0386	96.5	0.0396	98.9		
	L733743-147	VOCMS13	1121_18	0.0398	99.4	0.0395	98.8	0.0399	99.8		
	L733743-149	VOCMS13	1121_20	0.0409	102	0.0391	97.8	0.0396	99.0		
	L733743-151	VOCMS13	1121_22	0.0407	102	0.0391	97.6	0.0398	99.5		
	L733743-152	VOCMS13	1121_23	0.0420	105	0.0381	95.2	0.0402	100		
	L733743-153	VOCMS13	1121_24	0.0399	99.9	0.0402	100	0.0399	99.7		
	L733743-154	VOCMS13	1121_25	0.0400	100	0.0411	103	0.0399	99.8		
	L733743-155	VOCMS13	1121_26	0.0408	102	0.0418	104	0.0396	99.0		
	L733743-156	VOCMS13	1121_16	0.0401	100	0.0405	101	0.0399	99.8		
	L733743-157	VOCMS13	1121_27	0.0406	101	0.0387	96.7	0.0396	99.1		
	L733743-161	VOCMS13	1121_11	0.0408	102	0.0466	116	0.0400	100		
	L733743-162	VOCMS13	1121_12	0.0402	100	0.0455	114	0.0400	100		
	LCS WG754919	VOCMS13	1121_04	0.0401	100	0.0416	104	0.0405	101	0.0405	101
	LCSD WG754919	VOCMS13	1121_05	0.0387	96.7	0.0401	100	0.0402	101	0.0409	102
	MS WG754919	VOCMS13	1121_06	0.0390	97.6	0.0424	106	0.0400	99.9	0.0395	98.8
	MSD WG754919	VOCMS13	1121_07	0.0405	101	0.0411	103	0.0399	99.7	0.0411	103
	BLANK WG754919	VOCMS13	1121_10	0.0401	100	0.0403	101	0.0402	101	0.0416	104

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
			ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-06	VOCMS25	1121_45	0.0429	107	0.0395	98.7	0.0424	106		
L733743-07	VOCMS25	1121_46	0.0432	108	0.0388	97.1	0.0420	105		
L733743-08	VOCMS25	1121_47	0.0437	109	0.0388	96.9	0.0416	104		
L733743-09	VOCMS25	1121_48	0.0432	108	0.0388	97.0	0.0415	104		
L733743-10	VOCMS25	1121_49	0.0430	107	0.0399	99.6	0.0420	105		
L733743-11	VOCMS25	1121_50	0.0429	107	0.0385	96.2	0.0417	104		
L733743-12	VOCMS25	1121_51	0.0433	108	0.0384	96.1	0.0422	106		
LCS WG755340	VOCMS25	1121_33	0.0427	107	0.0375	93.8	0.0418	104	0.0446	111
LCSD WG755340	VOCMS25	1121_34	0.0426	107	0.0369	92.3	0.0417	104	0.0441	110
MS WG755340	VOCMS25	1121_36	0.0431	108	0.0368	92.0	0.0421	105	0.0449	112
MSD WG755340	VOCMS25	1121_37	0.0435	109	0.0373	93.1	0.0408	102	0.0441	110
BLANK WG755340	VOCMS25	1121_39	0.0425	106	0.0379	94.8	0.0421	105	0.0440	110

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755673
Analysis Date:	11/21/2014 8:51:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-106, -107, -110, -115		

Surrogate Summary

Laboratory	Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
				ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
	L733743-106 500x	VOCMS25	1121_13	0.0438	109	0.0373	93.2	0.0413	103		
	L733743-107 200x	VOCMS25	1121_14	0.0435	109	0.0380	95.0	0.0416	104		
	L733743-110 25x	VOCMS25	1121_15	0.0438	109	0.0384	96.1	0.0410	103		
	L733743-115 10x	VOCMS25	1121_16	0.0424	106	0.0379	94.9	0.0414	103		
	BLANK WG755673	VOCMS25	1121_10-2	0.0434	109	0.0384	95.9	0.0407	102	0.0446	112
	LCS WG755673	VOCMS25	1121_04-2	0.0421	105	0.0379	94.7	0.0411	103	0.0452	113
	LCSD WG755673	VOCMS25	1121_06-2	0.0429	107	0.0366	91.5	0.0424	106	0.0445	111
	MS WG755673	VOCMS25	1121_07-2	0.0425	106	0.0378	94.6	0.0414	103	0.0451	113
	MSD WG755673	VOCMS25	1121_08-2	0.0428	107	0.0372	93.0	0.0412	103	0.0441	110

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755736
Analysis Date:	11/20/2014 4:24:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145		

Surrogate Summary

Laboratory	Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
				ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
	L733743-114	VOCMS6	1120_21	0.0379	94.7	0.0425	106	0.0407	102		
	L733743-142	VOCMS6	1120_25	0.0385	96.4	0.0453	113	0.0421	105		
	L733743-143	VOCMS6	1120_26	0.0382	95.4	0.0449	112	0.0416	104		
	L733743-144	VOCMS6	1120_27	0.0368	91.9	0.0445	111	0.0408	102		
	L733743-145	VOCMS6	1120_28	0.0390	97.6	0.0400	100	0.0407	102		
	L733743-69	VOCMS6	1120_29	0.0385	96.1	0.0400	100	0.0410	102		
	L733743-70	VOCMS6	1120_30	0.0372	92.9	0.0401	100	0.0410	103		
	L733743-71	VOCMS6	1120_31	0.0376	94.0	0.0401	100	0.0417	104		
	L733743-72	VOCMS6	1120_32	0.0382	95.5	0.0417	104	0.0413	103		
	L733743-73	VOCMS6	1120_33	0.0387	96.8	0.0416	104	0.0407	102		
	L733743-74	VOCMS6	1120_34	0.0385	96.2	0.0419	105	0.0408	102		
	L733743-81	VOCMS6	1120_35	0.0374	93.4	0.0409	102	0.0417	104		
LCS	WG755736	VOCMS6	1120_07	0.0381	95.3	0.0410	103	0.0403	101	0.0391	97.8
LCSD	WG755736	VOCMS6	1120_08	0.0366	91.4	0.0393	98.3	0.0406	102	0.0393	98.3
LCS	WG755736	VOCMS6	1120_09	0.0391	97.8	0.0420	105	0.0406	102	0.0405	101
LCSD	WG755736	VOCMS6	1120_10	0.0385	96.2	0.0403	101	0.0411	103	0.0397	99.1
MS	WG755736	VOCMS6	1120_12	0.0371	92.7	0.0426	106	0.0406	102	0.0394	98.5
MSD	WG755736	VOCMS6	1120_13	0.0382	95.4	0.0416	104	0.0410	102	0.0407	102
MS	WG755736	VOCMS6	1120_14	0.0353	88.1	0.0413	103	0.0402	101	0.0390	97.4
MSD	WG755736	VOCMS6	1120_15	0.0370	92.6	0.0417	104	0.0405	101	0.0396	98.9
BLANK	WG755736	VOCMS6	1120_17	0.0384	95.9	0.0395	98.7	0.0411	103	0.0400	100

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
			ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-128	VOCMS23	1121_18	0.0417	104	0.0383	95.7	0.0404	101		
L733743-135	VOCMS23	1121_19	0.0417	104	0.0388	97.0	0.0395	98.7		
L733743-137	VOCMS23	1121_20	0.0415	104	0.0381	95.3	0.0405	101		
L733743-138	VOCMS23	1121_21	0.0419	105	0.0379	94.8	0.0399	99.7		
L733743-139	VOCMS23	1121_22	0.0422	105	0.0391	97.8	0.0400	100		
L733743-142	VOCMS23	1121_23	0.0415	104	0.0380	95.0	0.0404	101		
L733743-143	VOCMS23	1121_24	0.0420	105	0.0373	93.1	0.0400	100		
L733743-144	VOCMS23	1121_25	0.0420	105	0.0394	98.5	0.0403	101		
LCS WG755901	VOCMS23	1121_03	0.0401	100	0.0387	96.7	0.0401	100	0.0439	110
LCSD WG755901	VOCMS23	1121_04	0.0411	103	0.0377	94.3	0.0403	101	0.0435	109
MS WG755901	VOCMS23	1121_07	0.0377	94.2	0.0374	93.4	0.0403	101	0.0433	108
MSD WG755901	VOCMS23	1121_08	0.0393	98.3	0.0385	96.1	0.0400	100	0.0443	111
BLANK WG755901	VOCMS23	1121_10	0.0415	104	0.0384	95.9	0.0399	99.7	0.0431	108

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
			ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-13	VOCMS30	1122_50	0.0436	109	0.0392	97.9	0.0409	102		
L733743-14	VOCMS30	1122_51	0.0436	109	0.0386	96.4	0.0411	103		
L733743-15	VOCMS30	1122_52	0.0441	110	0.0387	96.7	0.0410	102		
L733743-26	VOCMS30	1122_53	0.0420	105	0.0382	95.4	0.0410	103		
L733743-27	VOCMS30	1122_54	0.0419	105	0.0383	95.8	0.0406	101		
L733743-28	VOCMS30	1122_55	0.0431	108	0.0386	96.5	0.0405	101		
LCS WG756231	VOCMS30	1122_32	0.0431	108	0.0380	95.0	0.0408	102	0.0429	107
LCSD WG756231	VOCMS30	1122_33	0.0436	109	0.0384	96.0	0.0405	101	0.0427	107
MS WG756231	VOCMS30	1122_35	0.0420	105	0.0372	92.9	0.0409	102	0.0429	107
MSD WG756231	VOCMS30	1122_36	0.0418	105	0.0385	96.4	0.0413	103	0.0438	109
BLANK WG756231	VOCMS30	1122_38	0.0428	107	0.0388	97.0	0.0405	101	0.0423	106

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
			ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-97	VOCMS4	1123_45	0.0372	93.1	0.0435	109	0.0423	106		
LCS WG756371	VOCMS4	1123_33	0.0394	98.5	0.0441	110	0.0417	104	0.0384	95.9
LCSD WG756371	VOCMS4	1123_34	0.0388	96.9	0.0443	111	0.0418	105	0.0381	95.3
BLANK WG756371	VOCMS4	1123_37	0.0390	97.5	0.0432	108	0.0419	105	0.0388	97.1
MS WG756371	VOCMS4	1123_41	0.0392	97.9	0.0435	109	0.0419	105	0.0380	94.9
MSD WG756371	VOCMS4	1123_42	0.0384	96.1	0.0445	111	0.0420	105	0.0384	95.9

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	BFB		DFM		TD8		TFT	
			ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-148	VOCMS6	1123_49	0.0381	95.3	0.0413	103	0.0408	102		
L733743-150	VOCMS6	1123_50	0.0389	97.2	0.0402	100	0.0413	103		
L733743-158	VOCMS6	1123_47	0.0371	92.7	0.0419	105	0.0398	99.6		
L733743-159	VOCMS6	1123_51	0.0385	96.3	0.0410	102	0.0411	103		
L733743-160	VOCMS6	1123_52	0.0385	96.4	0.0410	102	0.0407	102		
LCS WG756413	VOCMS6	1123_39	0.0373	93.2	0.0413	103	0.0413	103	0.0408	102
MS WG756413	VOCMS6	1123_42	0.0388	97.1	0.0410	102	0.0406	102	0.0409	102
MSD WG756413	VOCMS6	1123_43	0.0375	93.7	0.0398	99.5	0.0412	103	0.0406	102
LCSD WG756413	VOCMS6	1123_44	0.0374	93.5	0.0409	102	0.0408	102	0.0409	102
BLANK WG756413	VOCMS6	1123_46	0.0381	95.3	0.0404	101	0.0403	101	0.0404	101

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755117
Analysis Date:	11/19/2014 3:32:00 PM	Analyst:	546
Instrument ID:	SVGC31	Prep Date:	11/17/2014
Sample Numbers:	L733743-43, -44, -45, -48, -49, -50, -51, -52, -53, -57, -59, -60, -63, -66, -69, -70, -71, -72, -73, -40		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
C10-C28 Diesel Range		< 0.100	0.0228	
C28-C40 Oil Range		< 0.100	< 0.0118	
Extractable Petroleum Hydrocarbon		< 0.100	< 0.0330	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.6723	111	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.7428	116	70 - 130	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.6723	111	1.7428	116	70 - 130	4.13	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755118
Analysis Date:	11/19/2014 10:20:00 PM	Analyst:	546
Instrument ID:	SVGC31	Prep Date:	11/17/2014
Sample Numbers:	L733743-100, -74, -75, -77, -80, -81, -82, -83, -84, -85, -88, -91, -92, -98, -101, -102, -103, -105, -106, -108		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
C10-C28 Diesel Range		< 0.100	0.0419	
C28-C40 Oil Range		< 0.100	0.0209	
Extractable Petroleum Hydrocarbon		< 0.100	0.0498	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.6116	107	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.5672	104	70 - 130	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.6116	107	1.5672	104	70 - 130	2.79	20	



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755119
Analysis Date:	11/19/2014 5:55:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/17/2014
Sample Numbers:	L733743-27, -28, -30, -31, -32, -33, -35, -36, -39, -37, -41, -42, -46, -47, -54, -55, -58, -61, -62, -67		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
C10-C28 Diesel Range		< 0.100	< 0.0222	
C28-C40 Oil Range		< 0.100	< 0.0118	
Extractable Petroleum Hydrocarbon		< 0.100	< 0.0330	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.7578	117	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.7339	116	70 - 130	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.7578	117	1.7339	116	70 - 130	1.37	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755121
Analysis Date:	11/18/2014 4:19:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/17/2014
Sample Numbers:	L733743-78, -79, -86, -87, -90, -93, -94, -95, -96, -97, -99, -104, -107, -111, -114, -117, -119, -120, -121, -125		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
C10-C28 Diesel Range		< 0.100	< 0.0222	
C28-C40 Oil Range		< 0.100	< 0.0118	
Extractable Petroleum Hydrocarbon		< 0.100	0.0385	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.4510	96.7	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.5157	101	70 - 130	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.4510	96.7	1.5157	101	70 - 130	4.37	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755122
Analysis Date:	11/18/2014 9:55:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/17/2014
Sample Numbers:	L733743-109, -110, -112, -113, -115, -116, -126, -127, -128, -129, -131, -132, -139, -141, -142, -143, -146, -147, -158		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
C10-C28 Diesel Range		< 0.100	< 0.0222	
C28-C40 Oil Range		< 0.100	< 0.0118	
Extractable Petroleum Hydrocarbon		< 0.100	< 0.0330	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.5580	104	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.4915	99.4	70 - 130	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.5580	104	1.4915	99.4	70 - 130	4.36	20	

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755177
Analysis Date:	11/19/2014 2:41:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/17/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
C10-C28 Diesel Range		0.120	0.120	B
C28-C40 Oil Range		0.880	0.880	B
Extractable Petroleum Hydrocarbon		1.09	1.09	B

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.6309	109	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.5551	104	70 - 130	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.6309	109	1.5551	104	70 - 130	4.75	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755478
Analysis Date:	11/20/2014 10:14:00 AM	Analyst:	546
Instrument ID:	SVGC31	Prep Date:	11/19/2014
Sample Numbers:	L733743-118, -122, -123, -124, -130, -133, -135, -136, -137, -138, -140, -144, -145, -148, -149, -150, -151, -152, -153		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
C10-C28 Diesel Range		< 0.100	< 0.0222	
C28-C40 Oil Range		< 0.100	< 0.0118	
Extractable Petroleum Hydrocarbon		< 0.100	< 0.0330	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.4476	96.5	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.5040	100	70 - 130	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.4476	96.5	1.5040	100	70 - 130	3.82	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755492
Analysis Date:	11/21/2014 3:13:00 PM	Analyst:	546
Instrument ID:	SVGC31	Prep Date:	11/19/2014
Sample Numbers:	L733743-155, -156, -157, -160		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
C10-C28 Diesel Range		< 0.100	< 0.0222	
C28-C40 Oil Range		< 0.100	< 0.0118	
Extractable Petroleum Hydrocarbon		< 0.100	< 0.0330	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.5454	103	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.5877	106	70 - 130	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.5454	103	1.5877	106	70 - 130	2.7	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755545
Analysis Date:	11/20/2014 4:34:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/19/2014
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -29, -34, -38		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
C10-C28 Diesel Range		< 0.100	< 0.0222	
C28-C40 Oil Range		< 0.100	< 0.0118	
Extractable Petroleum Hydrocarbon		< 0.100	< 0.0330	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.6645	111	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.7027	114	70 - 130	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.6645	111	1.7027	114	70 - 130	2.27	20	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755117
Analysis Date:	11/19/2014 3:32:00 PM	Analyst:	546
Instrument ID:	SVGC31	Prep Date:	11/17/2014
Sample Numbers:	L733743-43, -44, -45, -48, -49, -50, -51, -52, -53, -57, -59, -60, -63, -66, -69, -70, -71, -72, -73, -40		

Surrogate Summary

			o-Terphenyl	
Laboratory				
Sample ID	Instrument	File ID	ppm	% Rec
L733743-40 40x	SVGC31	1121A_27	0.00	0.00 J7
L733743-43	SVGC31	1119_11	0.0260	130
L733743-44	SVGC31	1119_12	0.0262	131
L733743-45	SVGC31	1119_13	0.0271	136
L733743-48	SVGC31	1119_14	0.0252	126
L733743-49	SVGC31	1119_15	0.0254	127
L733743-50	SVGC31	1119_16	0.0261	131
L733743-51	SVGC31	1119_17	0.0272	136
L733743-52	SVGC31	1119_18	0.0267	133
L733743-53	SVGC31	1119_19	0.0284	142
L733743-57	SVGC31	1119_29	0.0273	136
L733743-59	SVGC31	1119_30	0.0262	131
L733743-60	SVGC31	1119_31	0.0279	139
L733743-63	SVGC31	1119_32	0.0279	140
L733743-66	SVGC31	1119_33	0.0269	135
L733743-69	SVGC31	1119_20	0.0260	130
L733743-70	SVGC31	1119_25	0.0298	149
L733743-71	SVGC31	1119_26	0.0225	113
L733743-72	SVGC31	1119_27	0.0204	102
L733743-73	SVGC31	1119_28	0.0273	136
BLANK WG755117	SVGC31	1119_05	0.0253	127
LCS WG755117	SVGC31	1119_06	0.0280	140
LCSD WG755117	SVGC31	1119_07	0.0286	143

o-Terphenyl --O-TERPHENYL

True Value: 0.02 ppm Limits: 50 - 150



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755118
Analysis Date:	11/19/2014 10:20:00 PM	Analyst:	546
Instrument ID:	SVGC31	Prep Date:	11/17/2014
Sample Numbers:	L733743-100, -74, -75, -77, -80, -81, -82, -83, -84, -85, -88, -91, -92, -98, -101, -102, -103, -105, -106, -108		

Surrogate Summary

			o-Terphenyl	
Laboratory				
Sample ID	Instrument	File ID	ppm	% Rec
L733743-100	SVGC31	1119_34	0.0228	114
L733743-101 5x	SVGC31	1120_39	0.0220	110
L733743-102 5x	SVGC31	1120_40	0.0228	114
L733743-103 5x	SVGC31	1120_41	0.0231	116
L733743-105 5x	SVGC31	1120_42	0.0288	144
L733743-106 10x	SVGC31	1120_43	0.0151	75.6
L733743-108 5x	SVGC31	1120_44	0.0239	119
L733743-74 5x	SVGC31	1120_45	0.0223	111
L733743-75 5x	SVGC31	1120_46	0.0250	125
L733743-77 5x	SVGC31	1120_47	0.0239	120
L733743-80 5x	SVGC31	1120_58	0.0231	115
L733743-81 20x	SVGC31	1120_60	0.0279	140
L733743-82 5x	SVGC31	1120_59	0.0238	119
L733743-83 10x	SVGC31	1120_61	0.0242	121
L733743-84	SVGC31	1120_62	0.0231	115
L733743-85 5x	SVGC31	1120_48	0.0255	127
L733743-88 5x	SVGC31	1120_54	0.111	553 J1
L733743-91 5x	SVGC31	1120_55	0.0230	115
L733743-92 5x	SVGC31	1120_56	0.0217	108
L733743-98 10x	SVGC31	1120_57	0.0163	81.5
BLANK WG755118	SVGC31	1119_08	0.0269	134
LCS WG755118	SVGC31	1119_09	0.0264	132
LCSD WG755118	SVGC31	1119_10	0.0259	129

o-Terphenyl --O-TERPHENYL

True Value: 0.02 ppm Limits: 50 - 150



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755119
Analysis Date:	11/19/2014 5:55:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/17/2014
Sample Numbers:	L733743-27, -28, -30, -31, -32, -33, -35, -36, -39, -37, -41, -42, -46, -47, -54, -55, -58, -61, -62, -67		

Surrogate Summary

			o-Terphenyl	
Laboratory				
Sample ID	Instrument	File ID	ppm	% Rec
L733743-27	SVGC27	1119_23	0.0243	121
L733743-28	SVGC27	1119_24	0.0230	115
L733743-30	SVGC27	1119_25	0.0249	124
L733743-31	SVGC27	1119_26	0.0225	113
L733743-32	SVGC27	1119_27	0.0235	118
L733743-33	SVGC27	1119_28	0.0239	120
L733743-35	SVGC27	1119_29	0.0255	128
L733743-36	SVGC27	1119_30	0.0283	142
L733743-37 20x	SVGC27	1121_22	0.00	0.00 J7
L733743-39 2x	SVGC27	1119_32	0.0253	127
L733743-41	SVGC27	1121_10	0.0233	117
L733743-42	SVGC27	1121_11	0.0240	120
L733743-46	SVGC27	1121_12	0.0240	120
L733743-47	SVGC27	1121_13	0.0235	117
L733743-54	SVGC27	1121_14	0.0237	118
L733743-55	SVGC27	1121_05	0.0243	121
L733743-58	SVGC27	1121_06	0.0239	120
L733743-61	SVGC27	1121_07	0.0247	123
L733743-62	SVGC27	1121_08	0.0248	124
L733743-67	SVGC27	1121_09	0.0248	124
BLANK WG755119	SVGC27	1119_09	0.0231	116
LCS WG755119	SVGC27	1119_10	0.0251	126
LCSD WG755119	SVGC27	1119_11	0.0237	119

o-Terphenyl --O-TERPHENYL

True Value: 0.02 ppm Limits: 50 - 150



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755121
Analysis Date:	11/18/2014 4:19:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/17/2014
Sample Numbers:	L733743-78, -79, -86, -87, -90, -93, -94, -95, -96, -97, -99, -104, -107, -111, -114, -117, -119, -120, -121, -125		

Surrogate Summary

			o-Terphenyl	
Laboratory				
Sample ID	Instrument	File ID	ppm	% Rec
L733743-104	SVGC27	1118_12	0.0228	114
L733743-107	SVGC27	1118_13	0.0228	114
L733743-111	SVGC27	1118_14	0.0217	108
L733743-114	SVGC27	1118_15	0.0232	116
L733743-117	SVGC27	1118_16	0.0230	115
L733743-119	SVGC27	1118_17	0.0220	110
L733743-120	SVGC27	1118_18	0.0228	114
L733743-121	SVGC27	1118_19	0.0227	114
L733743-125	SVGC27	1118_20	0.0219	109
L733743-78	SVGC27	1118_21	0.0226	113
L733743-79	SVGC27	1118_26	0.0227	113
L733743-86	SVGC27	1118_27	0.0225	113
L733743-87	SVGC27	1118_28	0.0234	117
L733743-90	SVGC27	1118_29	0.0246	123
L733743-93	SVGC27	1118_30	0.0228	114
L733743-94	SVGC27	1118_31	0.0232	116
L733743-95	SVGC27	1118_32	0.0229	115
L733743-96	SVGC27	1118_33	0.0228	114
L733743-97	SVGC27	1118_34	0.0217	109
L733743-99	SVGC27	1118_35	0.0247	124
BLANK WG755121	SVGC27	1118_06	0.0226	113
LCS WG755121	SVGC27	1118_07	0.0229	115
LCSD WG755121	SVGC27	1118_08	0.0226	113

o-Terphenyl --O-TERPHENYL

True Value: 0.02 ppm Limits: 50 - 150



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755122
Analysis Date:	11/18/2014 9:55:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/17/2014
Sample Numbers:	L733743-109, -110, -112, -113, -115, -116, -126, -127, -128, -129, -131, -132, -139, -141, -142, -143, -146, -147, -158		

Surrogate Summary

			o-Terphenyl	
Laboratory				
Sample ID	Instrument	File ID	ppm	% Rec
L733743-109	SVGC27	1118_40	0.0168	83.9
L733743-110	SVGC27	1118_41	0.0235	117
L733743-112	SVGC27	1118_42	0.0236	118
L733743-113	SVGC27	1118_43	0.0231	116
L733743-115	SVGC27	1118_44	0.0244	122
L733743-116	SVGC27	1118_45	0.0227	114
L733743-126	SVGC27	1118_46	0.0227	114
L733743-127	SVGC27	1118_47	0.0226	113
L733743-128	SVGC27	1118_48	0.0227	113
L733743-129	SVGC27	1118_49	0.0226	113
L733743-131	SVGC27	1118_54	0.0225	112
L733743-132	SVGC27	1118_55	0.0229	115
L733743-139 2x	SVGC27	1118_56	0.0145	72.5
L733743-141	SVGC27	1118_57	0.0225	112
L733743-142	SVGC27	1118_58	0.0234	117
L733743-143	SVGC27	1118_59	0.0210	105
L733743-146	SVGC27	1118_60	0.0235	118
L733743-147	SVGC27	1118_61	0.0237	118
L733743-158	SVGC27	1118_62	0.0235	118
L733743-159	SVGC27	1118_63	0.0233	117
BLANK WG755122	SVGC27	1118_09	0.0232	116
LCS WG755122	SVGC27	1118_10	0.0230	115
LCSD WG755122	SVGC27	1118_11	0.0225	112

o-Terphenyl --O-TERPHENYL

True Value: 0.02 ppm Limits: 50 - 150



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755177
Analysis Date:	11/19/2014 2:41:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/17/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05		

Surrogate Summary

			o-Terphenyl	
Laboratory				
Sample ID	Instrument	File ID	ppm	% Rec
L733743-01	SVGC27	1119_12	0.0236	118
L733743-02	SVGC27	1119_13	0.0230	115
L733743-03	SVGC27	1119_14	0.0229	114
L733743-04	SVGC27	1119_15	0.0231	116
L733743-05	SVGC27	1119_16	0.0220	110
BLANK WG755177	SVGC27	1119_05	0.0233	116
LCS WG755177	SVGC27	1119_06	0.0235	118
LCSD WG755177	SVGC27	1119_08	0.0232	116

o-Terphenyl --O-TERPHENYL

True Value: 0.02 ppm Limits: 50 - 150



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755478
Analysis Date:	11/20/2014 10:14:00 AM	Analyst:	546
Instrument ID:	SVGC31	Prep Date:	11/19/2014
Sample Numbers:	L733743-118, -122, -123, -124, -130, -133, -135, -136, -137, -138, -140, -144, -145, -148, -149, -150, -151, -152, -153		

Surrogate Summary

o-Terphenyl

Laboratory			o-Terphenyl	
Sample ID	Instrument	File ID	ppm	% Rec
L733743-118	SVGC31	1120_08	0.0257	128
L733743-122	SVGC31	1120_09	0.0232	116
L733743-123	SVGC31	1120_10	0.0233	117
L733743-124	SVGC31	1120_11	0.0239	119
L733743-130	SVGC31	1120_12	0.0249	124
L733743-133	SVGC31	1120_13	0.0271	135
L733743-135	SVGC31	1120_14	0.0233	116
L733743-136	SVGC31	1120_15	0.0216	108
L733743-137 2x	SVGC31	1120_16	0.0237	118
L733743-138	SVGC31	1120_17	0.0215	107
L733743-140 5x	SVGC31	1120_24	0.0297	148
L733743-144 5x	SVGC31	1120_25	0.0162	81.2
L733743-145 5x	SVGC31	1120_26	0.0208	104
L733743-148 5x	SVGC31	1120_27	0.0209	104
L733743-149 5x	SVGC31	1120_28	0.0193	96.7
L733743-150 2x	SVGC31	1120_29	0.0140	69.9
L733743-151 5x	SVGC31	1120_30	0.0228	114
L733743-152 5x	SVGC31	1120_31	0.0210	105
L733743-153 5x	SVGC31	1120_32	0.0232	116
L733743-154 5x	SVGC31	1120_33	0.0235	117
BLANK WG755478	SVGC31	1120_05	0.0239	120
LCS WG755478	SVGC31	1120_06	0.0233	116
LCSD WG755478	SVGC31	1120_07	0.0230	115

o-Terphenyl --O-TERPHENYL

True Value: 0.02 ppm Limits: 50 - 150



12065 Lebanon Rd
Mt. Juliet, TN 37122
(615) 758-5858
(800) 767-5859
Fax (615) 758-5859
Tax I.D 62-0814289
Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Diesel Range Organics by Method 8015
Project No: TX000836.0008.00004
Project: Navajo Refining Company - Artesia, NM
Collection Date: 11/11/2014
Analysis Date: 11/21/2014 3:13:00 PM
Instrument ID: SVGC31
Sample Numbers: L733743-155, -156, -157, -160
Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: **WG755492**
Analyst: 546
Prep Date: 11/19/2014

Surrogate Summary

			o-Terphenyl	
Laboratory				
Sample ID	Instrument	File ID	ppm	% Rec
L733743-155	SVGC31	1121A_08	0.0250	125
L733743-156	SVGC31	1121A_09	0.0249	125
L733743-157	SVGC31	1121A_10	0.0261	130
L733743-160	SVGC31	1121A_11	0.0261	131
BLANK WG755492	SVGC31	1121A_05	0.0252	126
LCS WG755492	SVGC31	1121A_06	0.0249	125
LCSD WG755492	SVGC31	1121A_07	0.0249	124

o-Terphenyl --O-TERPHENYL

True Value: 0.02 ppm Limits: 50 - 150



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755545
Analysis Date:	11/20/2014 4:34:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/19/2014
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -29, -34, -38		

Surrogate Summary

o-Terphenyl

Laboratory				
Sample ID	Instrument	File ID	ppm	% Rec
L733743-06 1.17x	SVGC27	1120A_17	0.0264	113
L733743-07 1.17x	SVGC27	1120A_18	0.0279	119
L733743-08 1.11x	SVGC27	1120A_19	0.0265	119
L733743-09 1.11x	SVGC27	1120A_20	0.0268	121
L733743-10 1.11x	SVGC27	1120A_21	0.0254	114
L733743-11 1.11x	SVGC27	1120A_26	0.0261	118
L733743-12 1.11x	SVGC27	1120A_27	0.0260	117
L733743-13 1.11x	SVGC27	1120A_28	0.0279	126
L733743-14 1.11x	SVGC27	1120A_29	0.0274	123
L733743-15 1.11x	SVGC27	1120A_30	0.0269	121
L733743-25	SVGC27	1120A_31	0.0269	134
L733743-26	SVGC27	1120A_32	0.0198	99.1
L733743-29	SVGC27	1120A_33	0.0243	121
L733743-34 20x	SVGC27	1121_24	0.0236	118 J7
L733743-38	SVGC27	1120A_35	0.0246	123
BLANK WG755545	SVGC27	1120A_06	0.0255	127
LCS WG755545	SVGC27	1120A_07	0.0235	117
LCSD WG755545	SVGC27	1120A_08	0.0248	124

o-Terphenyl --O-TERPHENYL

True Value: 0.02 ppm Limits: 50 - 150



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754898
Analysis Date:	11/18/2014 9:10:00 AM	Analyst:	280
Instrument ID:	BNAMS4, BNAMS1	Prep Date:	11/15/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
1-Methylnaphthalene	90-12-0	< 1.00	< 0.330	
2-Methylnaphthalene	91-57-6	< 1.00	< 0.311	
Benzo(a)pyrene	50-32-8	< 1.00	< 0.340	
Naphthalene	91-20-3	< 1.00	< 0.372	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754905
Analysis Date:	11/18/2014 5:34:00 AM	Analyst:	280
Instrument ID:	BNAMS11	Prep Date:	11/15/2014
Sample Numbers:	L733743-06, -07, -08, -09, -11		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
1-Methylnaphthalene	90-12-0	< 1.00	< 0.330	
2-Methylnaphthalene	91-57-6	< 1.00	< 0.311	
Benzo(a)pyrene	50-32-8	< 1.00	< 0.340	
Naphthalene	91-20-3	< 1.00	< 0.372	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755104
Analysis Date:	11/19/2014 6:54:00 AM	Analyst:	280
Instrument ID:	BNAMS2, BNAMS1	Prep Date:	11/17/2014
Sample Numbers:	L733743-10, -12, -13, -14, -15		

Method Blank				
Analyte	CAS	RDL	MDL	Qualifier
1-Methylnaphthalene	90-12-0	< 1.00	< 0.330	
2-Methylnaphthalene	91-57-6	< 1.00	< 0.311	
Benzo(a)pyrene	50-32-8	< 1.00	< 0.340	
Naphthalene	91-20-3	< 1.00	< 0.372	



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754898
Analysis Date:	11/18/2014 9:10:00 AM	Analyst:	280
Instrument ID:	BNAMS4, BNAMS1	Prep Date:	11/15/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1-Methylnaphthalene	1	25	18.081	72.3	34.7 - 102	
2-Methylnaphthalene	1	25	16.022	64.1	33.8 - 98.6	
Benzo(a)pyrene	1	25	17.323	69.3	45.6 - 106	
Naphthalene	1	25	15.035	60.1	32.2 - 101	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1-Methylnaphthalene	1	25	18.568	74.3	34.7 - 102	
2-Methylnaphthalene	1	25	17.282	69.1	33.8 - 98.6	
Benzo(a)pyrene	1	25	22.042	88.2	45.6 - 106	
Naphthalene	1	25	15.689	62.8	32.2 - 101	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD		
							Limits	Qual	% RPD	Limits	Qual
1-Methylnaphthalene	1	25	18.081	72.3	18.568	74.3	34.7 - 102		2.66	24.9	
2-Methylnaphthalene	1	25	16.022	64.1	17.282	69.1	33.8 - 98.6		7.57	24.2	
Benzo(a)pyrene	1	25	17.323	69.3	22.042	88.2	45.6 - 106		24	20	J3
Naphthalene	1	25	15.035	60.1	15.689	62.8	32.2 - 101		4.26	23.8	

Quality Control Summary
SDG: L733743
ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754905
Analysis Date:	11/18/2014 5:34:00 AM	Analyst:	280
Instrument ID:	BNAMS11	Prep Date:	11/15/2014
Sample Numbers:	L733743-06, -07, -08, -09, -11		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1-Methylnaphthalene	1	25	22.635	90.5	34.7 - 102	
2-Methylnaphthalene	1	25	20.468	81.9	33.8 - 98.6	
Benzo(a)pyrene	1	25	24.050	96.2	45.6 - 106	
Naphthalene	1	25	18.791	75.2	32.2 - 101	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1-Methylnaphthalene	1	25	23.251	93	34.7 - 102	
2-Methylnaphthalene	1	25	20.565	82.3	33.8 - 98.6	
Benzo(a)pyrene	1	25	25.131	101	45.6 - 106	
Naphthalene	1	25	19.448	77.8	32.2 - 101	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
1-Methylnaphthalene	1	25	22.635	90.5	23.251	93	34.7 - 102		2.68	24.9
2-Methylnaphthalene	1	25	20.468	81.9	20.565	82.3	33.8 - 98.6		0.48	24.2
Benzo(a)pyrene	1	25	24.050	96.2	25.131	101	45.6 - 106		4.4	20
Naphthalene	1	25	18.791	75.2	19.448	77.8	32.2 - 101		3.44	23.8



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755104
Analysis Date:	11/19/2014 6:54:00 AM	Analyst:	280
Instrument ID:	BNAMS2, BNAMS1	Prep Date:	11/17/2014
Sample Numbers:	L733743-10, -12, -13, -14, -15		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1-Methylnaphthalene	1	25	19.461	77.8	34.7 - 102	
2-Methylnaphthalene	1	25	17.107	68.4	33.8 - 98.6	
Benzo(a)pyrene	1	25	21.426	85.7	45.6 - 106	
Naphthalene	1	25	16.391	65.6	32.2 - 101	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1-Methylnaphthalene	1	25	20.402	81.6	34.7 - 102	
2-Methylnaphthalene	1	25	18.181	72.7	33.8 - 98.6	
Benzo(a)pyrene	1	25	21.895	87.6	45.6 - 106	
Naphthalene	1	25	17.057	68.2	32.2 - 101	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits
1-Methylnaphthalene	1	25	19.461	77.8	20.402	81.6	34.7 - 102		4.72	24.9
2-Methylnaphthalene	1	25	17.107	68.4	18.181	72.7	33.8 - 98.6		6.09	24.2
Benzo(a)pyrene	1	25	21.426	85.7	21.895	87.6	45.6 - 106		2.17	20
Naphthalene	1	25	16.391	65.6	17.057	68.2	32.2 - 101		3.99	23.8



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754905
Analysis Date:	11/18/2014 5:34:00 AM	Analyst:	280
Instrument ID:	BNAMS11	Prep Date:	11/15/2014
Sample Numbers:	L733743-06, -07, -08, -09, -11		

Matrix Spike / Matrix Spike Duplicate

L733682-02

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
1-Methylnaphthalene	1	25	0.0	21.871	87.5	23.640	94.6	10 - 149		7.77		26
2-Methylnaphthalene	1	25	0.0	19.779	79.1	21.028	84.1	24.6 - 114		6.12		23.7
Benzo(a)pyrene	1	25	0.0	23.981	95.9	24.835	99.3	23.3 - 135		3.5		20
Naphthalene	1	25	0.2125	18.128	71.7	19.004	75.2	20.2 - 114		4.72		27.5

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754898
Analysis Date:	11/18/2014 9:10:00 AM	Analyst:	280
Instrument ID:	BNAMS4	Prep Date:	11/15/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05		

Internal Standard Response and Retention Time Summary

File ID: 1117B_02
Analyzed: 11/18/14 053000

	IS4		ACE		CHR		NAP	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	96540	5.44	266855	8.62	770545	13.14	365366	6.73
Upper Limit	193000	5.94	534000	9.12	1540000	13.64	731000	7.23
Lower Limit	48300	4.94	133000	8.12	385000	12.64	183000	6.23
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-01	74404	5.44	186785	8.62	528573	13.14	264209	6.72
L733743-02	73011	5.44	201251	8.62	473283	13.14	273646	6.72
L733743-03	69680	5.44	178445	8.62	474231	13.14	275419	6.72
L733743-04	72736	5.44	189866	8.62	491429	13.14	271773	6.72
L733743-05	74019	5.44	213587	8.61	519828	13.14	281988	6.72
LCSD WG754898	74200	5.44	200135	8.62	498098	13.14	297132	6.72
LCS WG754898	83320	5.44	217302	8.62	551627	13.14	311912	6.72
BLANK WG754898	73380	5.44	203265	8.62	494260	13.14	277870	6.72

Legend:

IS4 -- 1,4-Dichlorobenzene-d4
ACE -- Acenaphthene-d10
CHR -- Chrysene-d12
NAP -- Naphthalene-d8
PER -- Perylene-d12
PHEN -- Phenanthrene-d10

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754898
Analysis Date:	11/18/2014 9:10:00 AM	Analyst:	280
Instrument ID:	BNAMS4	Prep Date:	11/15/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05		

Internal Standard Response and Retention Time Summary

File ID: 1117B_02
Analyzed: 11/18/14 053000

	IS4		PER		PHEN	
	Response	RT	Response	RT	Response	RT
12 Hr. Std	96540	5.44	846499	14.64	539273	10.25
Upper Limit	193000	5.94	1690000	15.14	1080000	10.75
Lower Limit	48300	4.94	423000	14.14	270000	9.75
Sample ID	Response	RT	Response	RT	Response	RT
L733743-01	74404	5.44	564935	14.64	379064	10.25
L733743-02	73011	5.44	614831	14.64	376765	10.25
L733743-03	69680	5.44	577623	14.64	367544	10.25
L733743-04	72736	5.44	602257	14.64	383338	10.25
L733743-05	74019	5.44	578018	14.64	383772	10.25
LCSD WG754898	74200	5.44	621534	14.64	395763	10.25
LCS WG754898	83320	5.44	669359	14.64	460354	10.25
BLANK WG754898	73380	5.44	600596	14.64	400355	10.25

Legend:

IS4 -- 1,4-Dichlorobenzene-d4
ACE -- Acenaphthene-d10
CHR -- Chrysene-d12
NAP -- Naphthalene-d8
PER -- Perylene-d12
PHEN -- Phenanthrene-d10

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754905
Analysis Date:	11/18/2014 5:34:00 AM	Analyst:	280
Instrument ID:	BNAMS11	Prep Date:	11/15/2014
Sample Numbers:	L733743-06, -07, -08, -09, -11		

Internal Standard Response and Retention Time Summary

File ID: 1117A_03
Analyzed: 11/18/14 005900

	IS4		ACE		CHR		NAP	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	112097	5.44	300417	8.57	665559	13.04	473029	6.70
Upper Limit	224000	5.94	601000	9.07	1330000	13.54	946000	7.20
Lower Limit	56000	4.94	150000	8.07	333000	12.54	237000	6.20
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-06	100539	5.44	262737	8.57	608351	13.03	415952	6.70
L733743-07	102421	5.44	278292	8.57	641628	13.03	445774	6.70
L733743-08	95231	5.44	247725	8.57	574015	13.03	404539	6.70
L733743-09	102882	5.44	271158	8.57	615366	13.03	442411	6.70
L733743-11	102559	5.44	267900	8.57	608372	13.03	430876	6.70
MSD WG754905	92918	5.44	236277	8.57	555155	13.03	383025	6.70
MS WG754905	104786	5.44	281902	8.57	654480	13.03	447784	6.70
LCSD WG754905	89694	5.44	237027	8.57	527371	13.03	378266	6.70
LCS WG754905	104645	5.44	283976	8.57	650136	13.03	443346	6.70
BLANK WG754905	96078	5.44	258759	8.57	576116	13.03	408222	6.70

Legend:

IS4 -- 1,4-Dichlorobenzene-d4
ACE -- Acenaphthene-d10
CHR -- Chrysene-d12
NAP -- Naphthalene-d8
PER -- Perylene-d12
PHEN -- Phenanthrene-d10

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754905
Analysis Date:	11/18/2014 5:34:00 AM	Analyst:	280
Instrument ID:	BNAMS11	Prep Date:	11/15/2014
Sample Numbers:	L733743-06, -07, -08, -09, -11		

Internal Standard Response and Retention Time Summary

File ID: 1117A_03
Analyzed: 11/18/14 005900

	IS4		PER		PHEN	
	Response	RT	Response	RT	Response	RT
12 Hr. Std	112097	5.44	855919	14.52	554212	10.18
Upper Limit	224000	5.94	1710000	15.02	1110000	10.68
Lower Limit	56000	4.94	428000	14.02	277000	9.68
Sample ID	Response	RT	Response	RT	Response	RT
L733743-06	100539	5.44	797050	14.52	481435	10.18
L733743-07	102421	5.44	793667	14.52	508084	10.18
L733743-08	95231	5.44	698344	14.52	446087	10.17
L733743-09	102882	5.44	766721	14.52	499705	10.18
L733743-11	102559	5.44	754632	14.51	493537	10.18
MSD WG754905	92918	5.44	668943	14.52	441857	10.18
MS WG754905	104786	5.44	817970	14.51	509281	10.18
LCSD WG754905	89694	5.44	661787	14.52	427899	10.18
LCS WG754905	104645	5.44	812683	14.52	519947	10.18
BLANK WG754905	96078	5.44	730647	14.52	465339	10.18

Legend:

IS4 -- 1,4-Dichlorobenzene-d4
ACE -- Acenaphthene-d10
CHR -- Chrysene-d12
NAP -- Naphthalene-d8
PER -- Perylene-d12
PHEN -- Phenanthrene-d10

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755104
Analysis Date:	11/19/2014 6:54:00 AM	Analyst:	280
Instrument ID:	BNAMS2	Prep Date:	11/17/2014
Sample Numbers:	L733743-10, -12, -13, -14, -15		

Internal Standard Response and Retention Time Summary

File ID: 1118A_02
Analyzed: 11/19/14 014700

	IS4		ACE		CHR		NAP	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	43686	4.95	112389	8.01	267019	12.42	157972	6.17
Upper Limit	87400	5.45	225000	8.51	534000	12.92	316000	6.67
Lower Limit	21800	4.45	56200	7.51	134000	11.92	79000	5.67
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-10	32135	4.95	96347	8.01	195160	12.42	132104	6.17
L733743-12	34678	4.95	91303	8.01	179120	12.42	129866	6.17
L733743-13	33178	4.95	88811	8.01	180830	12.41	119470	6.17
L733743-14	33236	4.95	88092	8.01	186318	12.42	129377	6.17
L733743-15	33389	4.95	91827	8.01	176376	12.42	122828	6.17
LCSD WG755104	38127	4.95	97307	8.01	222074	12.42	138847	6.17
LCS WG755104	38217	4.95	97172	8.01	219425	12.42	138091	6.18
BLANK WG755104	36650	4.95	96984	8.01	201813	12.42	136842	6.18

Legend:

IS4 -- 1,4-Dichlorobenzene-d4
ACE -- Acenaphthene-d10
CHR -- Chrysene-d12
NAP -- Naphthalene-d8
PER -- Perylene-d12
PHEN -- Phenanthrene-d10

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755104
Analysis Date:	11/19/2014 6:54:00 AM	Analyst:	280
Instrument ID:	BNAMS2	Prep Date:	11/17/2014
Sample Numbers:	L733743-10, -12, -13, -14, -15		

Internal Standard Response and Retention Time Summary

File ID: 1118A_02
Analyzed: 11/19/14 014700

	IS4		PER		PHEN	
	Response	RT	Response	RT	Response	RT
12 Hr. Std	43686	4.95	312215	13.85	222028	9.60
Upper Limit	87400	5.45	624000	14.35	444000	10.10
Lower Limit	21800	4.45	156000	13.35	111000	9.10
Sample ID	Response	RT	Response	RT	Response	RT
L733743-10	32135	4.95	221482	13.85	179867	9.59
L733743-12	34678	4.95	213542	13.85	173032	9.59
L733743-13	33178	4.95	199642	13.85	164979	9.59
L733743-14	33236	4.95	226509	13.85	176573	9.59
L733743-15	33389	4.95	216036	13.85	171536	9.59
LCSD WG755104	38127	4.95	260298	13.85	187967	9.59
LCS WG755104	38217	4.95	248368	13.85	187882	9.59
BLANK WG755104	36650	4.95	231233	13.85	182763	9.59

Legend:

IS4 -- 1,4-Dichlorobenzene-d4
ACE -- Acenaphthene-d10
CHR -- Chrysene-d12
NAP -- Naphthalene-d8
PER -- Perylene-d12
PHEN -- Phenanthrene-d10



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754898
Analysis Date:	11/18/2014 9:10:00 AM	Analyst:	280
Instrument ID:	BNAMS4	Prep Date:	11/15/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	TBP		FBP		2FP		NBZ	
			ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-01	BNAMS4	1117B_12	0.0155	77.4	0.00762	76.2	0.00836	41.8	0.00739	73.9
L733743-02	BNAMS4	1117B_13	0.0172	86.2	0.00761	76.1	0.0113	56.6	0.00859	85.9
L733743-03	BNAMS4	1117B_14	0.0164	82.1	0.00820	82.0	0.0108	53.9	0.00727	72.7
L733743-04	BNAMS4	1117B_15	0.0145	72.3	0.00818	81.8	0.00243	12.1	0.00726	72.6
L733743-05	BNAMS4	1117B_16	0.0150	75.0	0.00715	71.5	0.0109	54.6	0.00747	74.7
LCS WG754898	BNAMS4	1117B_07	0.0131	65.4	0.00672	67.2	0.0104	51.8	0.00694	69.4
LCSD WG754898	BNAMS4	1117B_08	0.0154	77.1	0.00728	72.8	0.0112	56.0	0.00713	71.3
BLANK WG754898	BNAMS4	1117B_09	0.0147	73.3	0.00726	72.6	0.0107	53.5	0.00699	69.9

TBP --2,4,6-TRIBROMOPHENOL

True Value: 0.02 ppm Limits: 11.2 - 130

FBP --2-FLUOROBIPHENYL

True Value: 0.01 ppm Limits: 29.5 - 131

2FP --2-FLUOROPHENOL

True Value: 0.02 ppm Limits: 10 - 77.9

NBZ --NITROBENZENE-D5

True Value: 0.01 ppm Limits: 21.8 - 123

TPH --P-TERPHENYL-D14

True Value: 0.01 ppm Limits: 29.3 - 137

PHL --PHENOL-D5

True Value: 0.02 ppm Limits: 5 - 70.1



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754898
Analysis Date:	11/18/2014 9:10:00 AM	Analyst:	280
Instrument ID:	BNAMS4	Prep Date:	11/15/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	TPH		PHL	
			ppm	% Rec	ppm	% Rec
L733743-01	BNAMS4	1117B_12	0.00697	69.7	0.00640	32.0
L733743-02	BNAMS4	1117B_13	0.00777	77.7	0.00813	40.6
L733743-03	BNAMS4	1117B_14	0.00880	88.0	0.00757	37.8
L733743-04	BNAMS4	1117B_15	0.00847	84.7	0.00362	18.1
L733743-05	BNAMS4	1117B_16	0.00749	74.9	0.00839	41.9
LCS WG754898	BNAMS4	1117B_07	0.00716	71.6	0.00700	35.0
LCSD WG754898	BNAMS4	1117B_08	0.00804	80.4	0.00731	36.6
BLANK WG754898	BNAMS4	1117B_09	0.00736	73.6	0.00806	40.3

TBP --2,4,6-TRIBROMOPHENOL

True Value: 0.02 ppm Limits: 11.2 - 130

FBP --2-FLUOROBIPHENYL

True Value: 0.01 ppm Limits: 29.5 - 131

2FP --2-FLUOROPHENOL

True Value: 0.02 ppm Limits: 10 - 77.9

NBZ --NITROBENZENE-D5

True Value: 0.01 ppm Limits: 21.8 - 123

TPH --P-TERPHENYL-D14

True Value: 0.01 ppm Limits: 29.3 - 137

PHL --PHENOL-D5

True Value: 0.02 ppm Limits: 5 - 70.1



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754905
Analysis Date:	11/18/2014 5:34:00 AM	Analyst:	280
Instrument ID:	BNAMS11	Prep Date:	11/15/2014
Sample Numbers:	L733743-06, -07, -08, -09, -11		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	TBP		FBP		2FP		NBZ	
			ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-06	BNAMS11	1117A_16	0.0156	78.1	0.00885	88.5	0.00974	48.7	0.00715	71.5
L733743-07	BNAMS11	1117A_17	0.0151	75.5	0.00852	85.2	0.0100	50.0	0.00630	63.0
L733743-08	BNAMS11	1117A_18	0.0153	76.7	0.00794	79.4	0.00904	45.2	0.00563	56.3
L733743-09	BNAMS11	1117A_19	0.0169	84.4	0.00964	96.4	0.0101	50.5	0.00700	70.0
L733743-11	BNAMS11	1117A_20	0.0147	73.6	0.00877	87.7	0.00799	39.9	0.00669	66.9
LCS WG754905	BNAMS11	1117A_05	0.0204	102	0.00904	90.4	0.0101	50.7	0.00710	71.0
LCSD WG754905	BNAMS11	1117A_06	0.0210	105	0.00928	92.8	0.0104	52.1	0.00765	76.5
BLANK WG754905	BNAMS11	1117A_07	0.0173	86.5	0.00902	90.2	0.0110	54.8	0.00711	71.1
MS WG754905	BNAMS11	1117A_14	0.0189	94.3	0.00862	86.2	0.00923	46.1	0.00683	68.3
MSD WG754905	BNAMS11	1117A_15	0.0187	93.4	0.00921	92.1	0.00969	48.4	0.00759	75.9

TBP --2,4,6-TRIBROMOPHENOL

True Value: 0.02 ppm Limits: 11.2 - 130

FBP --2-FLUOROBIPHENYL

True Value: 0.01 ppm Limits: 29.5 - 131

2FP --2-FLUOROPHENOL

True Value: 0.02 ppm Limits: 10 - 77.9

NBZ --NITROBENZENE-D5

True Value: 0.01 ppm Limits: 21.8 - 123

TPH --P-TERPHENYL-D14

True Value: 0.01 ppm Limits: 29.3 - 137

PHL --PHENOL-D5

True Value: 0.02 ppm Limits: 5 - 70.1



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C	Matrix:	Water - ug/L
Project No:	TX000836.0008.00004	EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM	Analytic Batch:	WG754905
Collection Date:	11/11/2014	Analyst:	280
Analysis Date:	11/18/2014 5:34:00 AM	Prep Date:	11/15/2014
Instrument ID:	BNAMS11		
Sample Numbers:	L733743-06, -07, -08, -09, -11		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	TPH		PHL	
			ppm	% Rec	ppm	% Rec
L733743-06	BNAMS11	1117A_16	0.00857	85.7	0.00715	35.8
L733743-07	BNAMS11	1117A_17	0.00847	84.7	0.00793	39.7
L733743-08	BNAMS11	1117A_18	0.00877	87.7	0.00702	35.1
L733743-09	BNAMS11	1117A_19	0.00908	90.8	0.00742	37.1
L733743-11	BNAMS11	1117A_20	0.00830	83.0	0.00631	31.6
LCS WG754905	BNAMS11	1117A_05	0.00888	88.8	0.00791	39.6
LCSD WG754905	BNAMS11	1117A_06	0.00927	92.7	0.00835	41.8
BLANK WG754905	BNAMS11	1117A_07	0.00884	88.4	0.00814	40.7
MS WG754905	BNAMS11	1117A_14	0.00831	83.1	0.00683	34.2
MSD WG754905	BNAMS11	1117A_15	0.00867	86.7	0.00707	35.4

TBP --2,4,6-TRIBROMOPHENOL	True Value: 0.02 ppm	Limits: 11.2 - 130
FBP --2-FLUOROBIPHENYL	True Value: 0.01 ppm	Limits: 29.5 - 131
2FP --2-FLUOROPHENOL	True Value: 0.02 ppm	Limits: 10 - 77.9
NBZ --NITROBENZENE-D5	True Value: 0.01 ppm	Limits: 21.8 - 123
TPH --P-TERPHENYL-D14	True Value: 0.01 ppm	Limits: 29.3 - 137
PHL --PHENOL-D5	True Value: 0.02 ppm	Limits: 5 - 70.1



12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

YOUR LAB OF CHOICE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755104
Analysis Date:	11/19/2014 6:54:00 AM	Analyst:	280
Instrument ID:	BNAMS2	Prep Date:	11/17/2014
Sample Numbers:	L733743-10, -12, -13, -14, -15		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	TBP		FBP		2FP		NBZ	
			ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-10	BNAMS2	1118A_16	0.0146	72.8	0.00743	74.3	0.0122	60.8	0.00568	56.8
L733743-12	BNAMS2	1118A_17	0.0142	70.8	0.00764	76.4	0.00849	42.4	0.00611	61.1
L733743-13	BNAMS2	1118A_18	0.0134	66.8	0.00766	76.6	0.00915	45.7	0.00675	67.5
L733743-14	BNAMS2	1118A_19	0.0152	75.8	0.00865	86.5	0.0106	52.8	0.00718	71.8
L733743-15	BNAMS2	1118A_20	0.0129	64.5	0.00677	67.7	0.0112	56.2	0.00563	56.3
LCS WG755104	BNAMS2	1118A_04-	0.0172	85.9	0.00770	77.0	0.0111	55.4	0.00627	62.7
LCSD WG755104	BNAMS2	1118A_05-	0.0191	95.5	0.00751	75.1	0.0114	56.8	0.00698	69.8
BLANK WG755104	BNAMS2	1118A_06-	0.0147	73.3	0.00779	77.9	0.00940	47.0	0.00569	56.9

TBP --2,4,6-TRIBROMOPHENOL

True Value: 0.02 ppm Limits: 11.2 - 130

FBP --2-FLUOROBIPHENYL

True Value: 0.01 ppm Limits: 29.5 - 131

2FP --2-FLUOROPHENOL

True Value: 0.02 ppm Limits: 10 - 77.9

NBZ --NITROBENZENE-D5

True Value: 0.01 ppm Limits: 21.8 - 123

TPH --P-TERPHENYL-D14

True Value: 0.01 ppm Limits: 29.3 - 137

PHL --PHENOL-D5

True Value: 0.02 ppm Limits: 5 - 70.1



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mt. Juliet, TN 37122
 (615) 758-5858
 (800) 767-5859
 Fax (615) 758-5859
 Tax I.D 62-0814289
 Est. 1970

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755104
Analysis Date:	11/19/2014 6:54:00 AM	Analyst:	280
Instrument ID:	BNAMS2	Prep Date:	11/17/2014
Sample Numbers:	L733743-10, -12, -13, -14, -15		

Surrogate Summary

Laboratory Sample ID	Instrument	File ID	TPH		PHL	
			ppm	% Rec	ppm	% Rec
L733743-10	BNAMS2	1118A_16	0.00809	80.9	0.00740	37.0
L733743-12	BNAMS2	1118A_17	0.00765	76.5	0.00528	26.4
L733743-13	BNAMS2	1118A_18	0.00696	69.6	0.00620	31.0
L733743-14	BNAMS2	1118A_19	0.00726	72.6	0.00805	40.3
L733743-15	BNAMS2	1118A_20	0.00774	77.4	0.00700	35.0
LCS WG755104	BNAMS2	1118A_04-	0.00748	74.8	0.00714	35.7
LCSD WG755104	BNAMS2	1118A_05-	0.00730	73.0	0.00749	37.4
BLANK WG755104	BNAMS2	1118A_06-	0.00666	66.6	0.00582	29.1

TBP --2,4,6-TRIBROMOPHENOL	True Value: 0.02 ppm	Limits: 11.2 - 130
FBP --2-FLUOROBIPHENYL	True Value: 0.01 ppm	Limits: 29.5 - 131
2FP --2-FLUOROPHENOL	True Value: 0.02 ppm	Limits: 10 - 77.9
NBZ --NITROBENZENE-D5	True Value: 0.01 ppm	Limits: 21.8 - 123
TPH --P-TERPHENYL-D14	True Value: 0.01 ppm	Limits: 29.3 - 137
PHL --PHENOL-D5	True Value: 0.02 ppm	Limits: 5 - 70.1

ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Billing Information:
 Attn: Accounts Payable
 630 Plaza Drive, Suite 600
 Highlands Ranch, CO 80129

Report to:
Project Manager

Email To: pam.krueger@arcadis-us.com; maisha.turner@arcadis-us.com

Project Description: **Navajo Refining Company - Artesia, NM**

City/State Collected:

Phone: **713-953-4800**
 Fax:

Client Project #
TX000836.0008.00004

Lab Project #
ARCADHTX-NAVAJO

Collected by (print):
Ron Wood

Site/Facility ID #

P.O. #

Collected by (signature):
Ron Wood
 Immediately Packed on Ice N Y

Rush? (Lab MUST Be Notified)
 ___ Same Day200%
 ___ Next Day100%
 ___ Two Day50%
 ___ Three Day25%

Date Results Needed
 Email? ___ No Yes
 FAX? ___ No ___ Yes

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
MW-25-1114-BG	G	GW	-	11/11/14	1200	14
MW-17-1114-BG	G	GW	-	11/11/14	1340	14
NP-5-1114-BG	G	GW	-	11/11/14	1500	14
MW-136-1114-BG	G	GW	-	11/11/14	1610	14
EB-12-1114-BG	G	GW	-	11/11/14	1700	14
MW-13-1114-BG	G	GW	-	11/12/14	0945	14
MW-12-1114-BG	G	GW	-	11/12/14	1040	14
MW-55-1114-BG	G	GW	-	11/12/14	1245	14
UG-2-1114-BG	G	GW	-	11/12/14	1435	14
UG-1-1114-BG	G	GW	-	11/13/14	1550	14

Analysis / Container / Preservative											
8270 100ml Amb NoPres	CL,FL,SO4 125mlHDPE-NoPres	CN 250mlHDPEAmb-NaOH >1/2	DIS METALS 500mlHDPE-HNO3 <2	DRO 100ml Amb-HCl <2	GRO 40mlAmb HCl	METALS 500mlHDPE-HNO3 <2	NO2NO3 250mlHDPE-H2SO4 <2	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl		

Chain of Custody Page 1 of 2



L.A.B S.C.I.E.N.C.E.S

YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859



L# **L733743**

G044

Acctnum: **ARCADHTX**
 Template: **T98202**
 Prelogin: **P488967**
 TSR: 633 - Pam Langford
 PB: **11-5-14 MW**
 Shipped Via: **FedEX Ground**

Rem./Contaminant	Sample # (lab only)
	-01
	02
	03
	04
	05
	06
	07
	08
	09
	10

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH _____ Temp _____
 Flow _____ Other _____

Relinquished by: (Signature)
Ron Wood

Date: **11/13/14**
 Time: **1400**

Received by: (Signature)
[Signature]

Samples returned via: UPS
 FedEx Courier _____

Condition: (lab use only)
OK

Relinquished by: (Signature)
[Signature]

Date: _____
 Time: _____

Received by: (Signature)
[Signature]

Temp: **7.8°C** Bottles Received: **216**

COC Seal Intact: Y N NA

Relinquished by: (Signature)
[Signature]

Date: _____
 Time: _____

Received for lab by: (Signature)
[Signature]

Date: **11/14/15** Time: **0900**

pH Checked: **12/12** NCF:

ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Billing Information:
 Attn: Accounts Payable
 630 Plaza Drive, Suite 600
 Highlands Ranch, CO 80129

Report to:
Project Manager

Email To: pam.krueger@arcadis-us.com; maisha.turner@arcadis-

Project Description: **Navajo Refining Company - Artesia, NM**

City/State Collected:

Phone: 713-953-4800
 Fax:

Client Project #
TX000836.0008.00004

Lab Project #
ARCADHTX-NAVAJO

Collected by (print):
Ron Wood

Site/Facility ID #

P.O. #

Collected by (signature):
Ron Wood
 Immediately Packed on Ice N ___ Y *X*

Rush? (Lab MUST Be Notified)
 ___ Same Day200%
 ___ Next Day100%
 ___ Two Day50%
 ___ Three Day25%

Date Results Needed
 Email? ___ No *X* Yes
 FAX? ___ No ___ Yes

Analysis / Container / Preservative	8270 100ml Amb NoPres	CL, FL, SO4 125ml HDPE-NoPres	CN 250ml HDPE Amb-NaOH 7.2	DIS METALS 500ml HDPE-HNO3 7.2	DRO 100ml Amb-HCl 7.2	GRO 40ml Amb HCl	METALS 500ml HDPE-HNO3 7.2	NO2NO3 250ml HDPE-H2SO4 7.2	TDS 250ml HDPE-NoPres	V8260 40ml Amb-HCl	
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs					
EB-13-1114-B6	G	GW	-	11/12/14	1655	14	X	X	X	X	X
UG-4-1114-B6	G	GW	-	11/13/14	0950	14	X	X	X	X	X
UG-3R-1114-B6	G	GW	-	11/13/14	1130	14	X	X	X	X	X
EB-14-1114-B6	G	GW	-	11/13/14	1230	14	X	X	X	X	X
DUP-5-1114		GW				14	X	X	X	X	X
Trip Blank 20		GW				14					X
Trip Blank 21		GW				14					X
Trip Blank 22		GW				14					X
Trip Blank 23		GW				14					X
Trip Blank 24		GW				14					X

Chain of Custody Page 2 of 3



L.A.B S.C.I.E.N.C.E.S

YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859

L# **L733743**

Table #

Acctnum: **ARCADHTX**
 Template: **T98202**
 Prelogin: **P488967**
 TSR: 633 - Pam Langford
 PB: *11-5-14 AWB*

Shipped Via: **FedEX Ground**

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH _____ Temp _____
 Flow _____ Other _____

Relinquished by: (Signature)
Ron Wood
 Relinquished by: (Signature)
 Relinquished by: (Signature)

Date: **11/13/14**
 Time: **1400**

Received by: (Signature)
 Received by: (Signature)
 Received for lab by: (Signature)
Jeany



Samples returned via: UPS
 FedEx Courier _____
 Temp: **2.8** °C Bottles Received: **216**
 Date: **11/14/15** Time: **0900**

Hold #


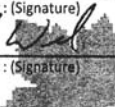


Condition: (lab use only)
701

COC Seal Intact: Y N NA

pH Checked: **12.7** NCF:

ARCADIS US - TX 2929 Briarpark Dr., Suite 300 Houston, TX 77042			Billing Information: Attn: Accounts Payable 630 Plaza Drive, Suite 600 Highlands Ranch, CO 80129			Analysis / Container / Preservative								Chain of Custody Page 3 of 3  L.A.B S.C.I.E.N.C.E.S. YOUR LAB OF CHOICE 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859 	
Report to: Project Manager			Email To: pam.krueger@arcadis-us.com; maisha.turner@arcadis-			8270 100ml Amb NoPres CL,FL,SO4 125mlHDPE-NoPres CN 250mlHDPEAmb-NaOH DIS METALS 500mlHDPE-HNO3 DRO 100ml Amb-HCl GRO 40mlAmb HCl METALS 500mlHDPE-HNO3 NO2NO3 250mlHDPE-H2SO4 TDS 250mlHDPE-NoPres V8260 40mlAmb-HCl								L# L73743	
Project Description: Navajo Refining Company - Artesia, NM			City/State Collected:											Table #	
Phone: 713-953-4800 Fax:	Client Project # TX000836.0008.00004		Lab Project # ARCADHTX-NAVAJO											Acctnum: ARCADHTX Template: T98202	
Collected by (print): <i>Ron Wood</i>	Site/Facility ID #		P.O. #											Prelogin: P488967 TSR: 633 - Pam Langford PB: 11-5-14 <i>rw</i>	
Collected by (signature): <i>Ron Wood</i>	Rush? (Lab MUST Be Notified) ___ Same Day200% ___ Next Day100% ___ Two Day50% ___ Three Day25%		Date Results Needed			Email? ___No ___Yes FAX? ___No ___Yes									
Immediately Packed on Ice N ___ Y X						No. of Cntrs									
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time							Rem./Contaminant	Sample # (lab only)		
Trip Blank 25		GW											X	-21	
Trip Blank 26		GW											X		
Trip Blank 27		GW											X		
		GW													
		GW													

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:						pH _____ Temp _____ Flow _____ Other _____		Hold #	
Relinquished by: (Signature) <i>Ron Wood</i>		Date: 11/13/14	Time: 1400	Received by: (Signature) 		Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____		Condition: (lab use only) TDI	
Relinquished by: (Signature) 		Date:	Time:	Received by: (Signature) 		Temp: 28°C Bottles Received: 216		COC Seal Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
Relinquished by: (Signature) 		Date:	Time:	Received for lab by: (Signature) <i>Janey We</i>		Date: 11/14/15 Time: 0910		pH Checked: 62.72 NCF: <input checked="" type="checkbox"/>	

ARCADIS US - TX 2929 Briarpark Dr., Suite 300 Houston, TX 77042		Billing Information: Attn: Accounts Payable 630 Plaza Drive, Suite 600 Highlands Ranch, CO 80129	
Report to: Project Manager		Email To: pam.krueger@arcadis-us.com; maisha.turner@arcadis-	

Project Description: Navajo Refining Company - Artesia, NM		City/State Collected:	
Phone: 713-953-4800	Client Project # TX000836.0008.00004	Lab Project # ARCADHTX-NAVAJO	
Collected by (print): Scott Ude + HMI Team	Site/Facility ID # EVAPORATION PONDS	P.O. #	
Collected by (signature): Scott Ude	Rush? (Lab MUST Be Notified) Same Day200% Next Day100% Two Day50% Three Day25%	Date Results Needed	
Immediately Packed on Ice N ___ Y <input checked="" type="checkbox"/>	Email? ___No X Yes FAX? ___No ___Yes	No. of Cntrs	

Chain of Custody Page 1 of 5



L.A.B. S.C.I.E.N.C.E.S.

YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# **L733743**

Table #

Acctnum: **ARCADHTX**
Template: **T98001**
Prelogin: **P487502**
TSR: **633 - Pam Langford**
PB: **10-28-146**

Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	300 CL, FL, SO4 125mlHDPE-NoPres	6020 NI. V. 7470 HG 500mlHDPE-HNO3 L2	CN 250mlHDPEAmb-NaOH >12	DROOROLVI 40mlAmb-HCl-BT	GRO 40mlAmb HCl	METALS, Nava 500mlHDPE-HNO3 L2	NO2NO3 250mlHDPE-H2SO4 L2	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl	Rem./Contaminant	Sample # (lab only)
MW-2A		GW		11/12/14	1440	10/8	X			X	X	X	X	X	X		-25
MW-3		GW		11/12/14	825	10/8	X			X	X	X	X	X	X		26
MW-4A		GW		11/13/14	1025	10/8	X			X	X	X	X	X	X		27
MW-5A		GW		11/13/14	1105	10/8	X			X	X	X	X	X	X		28
MW-7A		GW		11/12/14	1255	10/8	X			X	X	X	X	X	X		29
MW-10		GW		11/13/14	905	10/8	X			X	X	X	X	X	X		30
MW-18A		GW		11/13/14	1410	10/8	X	X	X	X	X	X	X	X	X		31
MW-22A		GW		11/13/14	1510	10/8	X			X	X	X	X	X	X		32
MW-70		GW		11/13/14	1315	7/8				X	X	X			X		33
MW-74		GW		11/12/14	1410	10/8	X			X	X	X	X	X	X		34

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Relinquished by: (Signature) Scott Ude	Date: 11/14/14	Time: 800	Received by: (Signature)	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/>	Condition: (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.1 °C Bottles Received: 1287	COC Seal Intact: ___Y___N___NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 11/15/14 Time: 0906	pH Checked: 12718 NCF: 532

ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Billing Information:
 Attn: Accounts Payable
 630 Plaza Drive, Suite 600
 Highlands Ranch, CO 80129

Report to:
Project Manager

Email To: pam.krueger@arcadis-us.com; maisha.turner@arcadis-

Project Description: **Navajo Refining Company - Artesia, NM**

City/State Collected:

Phone: 713-953-4800
 Fax:

Client Project #
TX000836.0008.00004

Lab Project #
ARCADHTX-NAVAJO

Collected by (print):
Scott Ude + HM Team

Site/Facility ID #
EVAPORATION PONDS

P.O. #

Collected by (signature):
Scott Ude
 Immediately Packed on Ice N ___ Y

Rush? (Lab MUST Be Notified)
 ___ Same Day200%
 ___ Next Day100%
 ___ Two Day50%
 ___ Three Day25%

Date Results Needed
 Email? ___ No Yes
 FAX? ___ No ___ Yes

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis / Container / Preservative										Rem./Contaminant	Sample # (lab only)
							300 CL, FL, SO4 12.5mlHDPE-NoPres	6020 NI, V, 7470 HG 500mlHDPE-HNO3	CN 250mlHDPEAmb-NaOH	DROORLVI 40mlAmb-HCl-BT	GRO 40mlAmb HCl	METALS, Nava 500mlHDPE-HNO3	NO2NO3 250mlHDPE-H2SO4	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl			
MW-75		GW		11/13/14	1205	108	X			X	X	X	X	X	X		35	
MW-76		GW		11/13/14	1405	108	X			X	X	X	X	X	X		36	
MW-77		GW		11/13/14	1320	108	X			X	X	X	X	X	X		37	
MW-79		GW		11/12/14	1320	108	X			X	X	X	X	X	X		38	
MW-83		GW		11/13/14	1450	108	X			X	X	X	X	X	X		39	
MW-84		GW		11/12/14	1110	108	X			X	X	X	X	X	X		40	
MW-87		GW		11/13/14	1130	78				X	X	X			X		41	
MW-88		GW		11/13/14	825	78				X	X	X			X		42	
MW-120		GW		11/12/14	925	108	X			X	X	X	X	X	X		43	
MW-121		GW		11/12/14	1010	108	X			X	X	X	X	X	X		44	

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH _____ Temp _____
 Flow _____ Other _____

Relinquished by: (Signature) <i>Scott Ude</i>	Date: 11/14/14	Time: 800	Received by: (Signature) <i>[Signature]</i>	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____	Condition: (lab use only)
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received by: (Signature) <i>[Signature]</i>	Temp: _____ °C Bottles Received: 3.1 1287	COC Seal Intact: ___ Y ___ N ___ NA
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: 11/15/14 Time: 0900	pH Checked: 2.2 NCF: _____ page 511 of 532

Chain of Custody Page 2 of 5



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859



L# **L733743**

Table #

Acctnum: **ARCADHTX**
 Template: **T98001**
 Prelogin: **P487502**
 TSR: 633 - Pam Langford
 PB: **10-88-146**

Shipped Via: **FedEX Ground**

ARCADIS US - TX 2929 Briarpark Dr., Suite 300 Houston, TX 77042		Billing Information: Attn: Accounts Payable 630 Plaza Drive, Suite 600 Highlands Ranch, CO 80129		Analysis / Container / Preservative				Chain of Custody Page 3 of 5	
------------------------------------------------------------------------------	--	------------------------------------------------------------------------------------------------------------------	--	--------------------------------------------	--	--	--	-------------------------------------	--



ESC
L.A.B S.C.I.E.N.C.E.S

YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



Report to: Project Manager		Email To: pam.krueger@arcadis-us.com; maisha.turner@arcadis-us.com		300 CL, FL, SO4 125mlHDPE-NoPres 6020 NI, V, 7470 HG 500mlHDPE-HNO3 CN 250mlHDPEAmb-NaOH DROOROLVI 40mlAmb-HCl-BT GRO 40mlAmb HCl METALS, Nava 500mlHDPE-HNO3 L2 NO2NO3 250mlHDPE-H2SO4 L2 TDS 250mlHDPE-NoPres V8260 40mlAmb-HCl				L # L733743			
Project Description: Navajo Refining Company - Artesia, NM		City/State Collected:						Table #			
Phone: 713-953-4800		Client Project # TX000836.0008.00004						Lab Project # ARCADHTX-NAVAJO		Acctnum: ARCADHTX	
Fax:		Site/Facility ID # EVAPORATION PONDS						P.O. #		Template: T98001	
Collected by (print): Scott Ude + Hm1 Team		Rush? (Lab MUST Be Notified)		Date Results Needed		Prelogin: P487502					
Collected by (signature): Scott Ude		<input type="checkbox"/> Same Day200% <input type="checkbox"/> Next Day100% <input type="checkbox"/> Two Day50% <input type="checkbox"/> Three Day25%		Email? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes FAX? <input type="checkbox"/> No <input type="checkbox"/> Yes		TSR: 633 - Pam Langford					
Packed on Ice N ___ Y <input checked="" type="checkbox"/>						PB: 1028-14					

Sample ID	Comp	Grab	Matrix *	Depth	Date	Time	No. of Cntrs	300 CL, FL, SO4 125mlHDPE-NoPres	6020 NI, V, 7470 HG 500mlHDPE-HNO3	CN 250mlHDPEAmb-NaOH	DROOROLVI 40mlAmb-HCl-BT	GRO 40mlAmb HCl	METALS, Nava 500mlHDPE-HNO3 L2	NO2NO3 250mlHDPE-H2SO4 L2	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl	Rem./Contaminant	Sample # (lab only)
MW-122			GW		11/12/14	1215	10/8	X			X	X	X	X	X	X		45
MW-123			GW		11/13/14	945	10/8	X			X	X	X	X	X	X		46
MW-124			GW		11/13/14	1225	10/8	X			X	X	X	X	X	X		47
OCD-1R			GW		11/12/14	825	10/8	X			X	X	X	X	X	X		48
OCD-2A			GW		11/12/14	920	7/8				X	X	X			X		49
OCD-3			GW		11/12/14	1010	7/8				X	X	X			X		50
OCD-4			GW		11/12/14	1100	7/8				X	X	X			X		51
OCD-5			GW		11/12/14	1150	10/8	X			X	X	X	X	X	X		52
OCD-6			GW		11/12/14	1530	10/8	X			X	X	X	X	X	X		53
OCD-7AR			GW		11/13/14	900	10/8	X			X	X	X	X	X	X		54

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:				pH _____ Temp _____		Hold #	
				Flow _____ Other _____			
Relinquished by: (Signature) Scott Ude		Date: 11/14/14	Time: 800	Received by: (Signature)		Samples returned via: <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____	
Relinquished by: (Signature)		Date:	Time:	Received by: (Signature)		Temp: 3.1 °C Bottles Received: 1287	
Relinquished by: (Signature)		Date:	Time:	Received for lab by: (Signature)		Date: 11/15/14 Time: 0900	
						Condition: (lab use only)	
						COC Seal Intact: ___ Y ___ N ___ NA	
						pH Checked: NCF:	
						Page 512 of 532	

ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Billing Information:
 Attn: Accounts Payable
 630 Plaza Drive, Suite 600
 Highlands Ranch, CO 80129

Report to:
 Project Manager

Email To: pam.krueger@arcadis-us.com; maisha.turner@arcadis-

Project Description: Navajo Refining Company - Artesia, NM

City/State Collected:

Phone: 713-953-4800
 Fax:

Client Project #
 TX000836.0008.00004

Lab Project #
 ARCADHTX-NAVAJO

Collected by (print):
 Scott Ude + HMI Team

Site/Facility ID #
 EVAPORATION PONDS (aa/ac)

P.O. #

Collected by (signature):
 Scott Ude
 Immediately Packed on Ice N Y

Rush? (Lab MUST Be Notified)
 Same Day200%
 Next Day100%
 Two Day50%
 Three Day25%

Date Results Needed
 Email? No Yes
 FAX? No Yes

Sample ID	Comp	Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis / Container / Preservative										Rem./Contaminant	Sample # (lab only)
								300 CL, FL, SO4	125mlHDPE-NoPres	6020 NI, V, 7470 HG	500mlHDPE-HNO3	CN-250mlHDPEAmb-NaOH	DROORLVI 40mlAmb-HCl-BT	GRO-40mlAmb HCl	METALS, Nava	500mlHDPE-HNO3	NO2NO3 250mlHDPE-H2SO4		
DUP-EP-01			GW		11/12/14	1200	10	X				X	X	X	X	X	X		57
DUP-EP-02			GW		11/13/14	1400	10	X				X	X	X	X	X	X		58
DUP-EP-03			GW		11/12/14	1000	10	X				X	X	X	X	X	X		59
EB-EP-01			GW		11/12/14	1425	10	X				X	X	X	X	X	X		60
EB-EP-02			GW		11/13/14	1235	10	X				X	X	X	X	X	X		61
EB-EP-03			GW		11/13/14	1120	10	X				X	X	X	X	X	X		62
EB-EP-04			GW		11/12/14	1340	10	X				X	X	X	X	X	X		63
Trip Blank-EP-01			GW		11/12/14	-	1	X									X		64
Trip Blank-EP-02			GW		11/13/14	-	1	X									X		65
			WW				3	X							X	X			

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH _____ Temp _____
 Flow _____ Other _____

Relinquished by: (Signature)
 Scott Ude

Date: 11/14/14
 Time: 800

Received by: (Signature)

Samples returned via: UPS
 FedEx Courier _____

Condition: (lab use only)

Relinquished by: (Signature)

Date:

Received by: (Signature)

Temp: 3.1 °C Bottles Received: 1287

COC Seal Intact: Y N NA

Relinquished by: (Signature)

Date:

Received for lab by: (Signature)

Date: 11/15/14 Time: 0900

pH Checked: <2 NCF: Page 514 of 532

Chain of Custody Page 5 of 5



YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859



L# L733743

Table #

Account: ARCADHTX
 Template: T98001
 Prelogin: P487502
 TSR: 633 - Pam Langford
 PB: 10-28-146

Shipped Via: FedEX Ground

ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Billing Information:
 Attn: Accounts Payable
 630 Plaza Drive, Suite 600
 Highlands Ranch, CO 80129

Report to:
Project Manager

Email To: pam.krueger@arcadis-us.com; maisha.turner@arcadis-us.com

Project Description: **Navajo Refining Company - Artesia, NM**

City/State Collected:

Phone: 713-953-4800
 Fax:

Client Project #
TX000836.0008.00004

Lab Project #
ARCADHTX-NAVAJO

Collected by (print):
Scott Ude + HMI Team

Site/Facility ID # (no additional a1/a2 loc)
TMD

P.O. #

Collected by (signature):
Scott Ude
 Immediately Packed on Ice N Y

Rush? (Lab MUST Be Notified)
 ___ Same Day200%
 ___ Next Day100%
 ___ Two Day50%
 ___ Three Day25%

Date Results Needed
 Email? ___ No Yes
 FAX? ___ No ___ Yes

Sample ID	Comp	Grab	Matrix *	Depth	Date	Time	No. of Cntrs	CL FL SO4 125mlHDPE-NoPres	DROOROLVI 40mlAmb-HCl-BT	GRO 40mlAmb HCl	METALS 500mlHDPE-HNO3 L2	NO2NO3 250mlHDPE-H2SO4 L2	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl	Rem./Contaminant	Sample # (lab only)
MW-21		↓	GW		11/12/14	1350 ³⁴ 1250	10/8	X	X	X	X	X	X	X		66
MW-46R		↓	GW		11/13/14	1640	8	X	X	X	X	X	X	X		67
NP-1		↓	GW		11/12/14	1350	2							X		68
			GW				2							X		
			GW				2							X		

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____

Remarks:

pH _____ Temp _____
 Flow _____ Other _____

Relinquished by: (Signature)
Scott Ude

Date: 11/14/14 Time: 800

Received by: (Signature)
[Signature]

Samples returned via: UPS FedEx Courier _____

Condition: (lab use only)

Relinquished by: (Signature)
[Signature]

Date: _____ Time: _____

Received by: (Signature)
[Signature]

Temp: 3.1 °C Bottles Received: 1287

COC Seal Intact: ___ Y ___ N ___ NA

Relinquished by: (Signature)
[Signature]

Date: _____ Time: _____

Received for lab by: (Signature)
[Signature]

Date: 11/15/14 Time: 0900

pH Checked: _____ NCF: _____
 page 515 of 532

ESC
 L.A.B S.C.I.E.N.C.E.S
 YOUR LAB OF CHOICE
 12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859

L# **L73743**
 Table #
 Acctnum: **ARCADHTX**
 Template: **T98008**
 Prelogin: **P487505**
 TSR: 633 - Pam Langford
 PB: *10.27 MF*
 Shipped Via: **FedEX Ground**

ARCADIS US - TX

2929 Briarpark Dr., Suite 300
Houston, TX 77042

Billing Information:
Attn: Accounts Payable
630 Plaza Drive, Suite 600
Highlands Ranch, CO 80129

Report to:
Project Manager

Email To: pam.krueger@arcadis-us.com; maisha.turner@arcadis-

Project Description: **Navajo Refining Company - Artesia, NM**

City/State Collected:

Phone: 713-953-4800
Fax:

Client Project #
TX000836.0008.00004

Lab Project #
ARCADHTX-NAVAJO

Collected by (print):
Scott Ude + HMI Team

Site/Facility ID #
TEL

P.O. #

Collected by (signature):
Scott Ude

Rush? (Lab MUST Be Notified)
Same Day200%
Next Day100%
Two Day50%
Three Day25%

Date Results Needed

Email? No Yes
FAX? No Yes

Immediately Packed on Ice N Y

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

L# **L733743**

Table #
Acctnum: **ARCADHTX**
Template: **T98003**
Prelogin: **P487503**
TSR: **633 Pam Langford**
PB: *10/27/14 MMB*
Shipped Via: **FedEX Ground**

Sample ID	Comp (Grab)	Matrix *	Depth	Date	Time	No. of Cntrs	CN 250mlHDPEAmb-NAOH >12	DROOROLVI 40mlAmb-HCl-BT	GRO 40mlAmb HCl	METALS 500mlHDPE-HNO3 <2	Metals 500mlHDPE-HNO3 6020 Ni, V, Ti, Tl, Hg 500mlHDPE-HNO3 <2	NO2-NH3, CL, FL, SO4 125mlHDPE-NoPres	NO2NO3 250mlHDPE-H2SO4 <2	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl	Rem./Contaminant	Sample # (lab only)
MW-49		GW		11/12/14	1600	128	X	X	X	X	X	X	X	X	X		-69
TEL-1		GW		11/12/14	1020	108		X	X	X		X	X	X	X		76
TEL-2		GW		11/12/14	1115	108		X	X	X		X	X	X	X		71
TEL-3		GW		11/12/14	1210	108		X	X	X		X	X	X	X		72
TEL-4		GW		11/12/14	1335	108		X	X	X		X	X	X	X		73
		GW				8		X	X	X		X	X	X			
		GW				8		X	X	X		X	X	X			
		GW				8		X	X	X		X	X	X			
		GW				2									X		
		GW				2									X		

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Relinquished by: (Signature) <i>Scott Ude</i>	Date: 11/14/14	Time: 800	Received by: (Signature) <i>[Signature]</i>	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____	Hold #
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received by: (Signature) <i>[Signature]</i>	Temp: 3.1 °C Bottles Received: 1287	Condition: (lab use only)
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: 11/15/14 Time: 0900	COC Seal Intact: <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA pH Checked: _____ NCF: _____ Page 516 of 532

ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Billing Information:
 Attn: Accounts Payable
 630 Plaza Drive, Suite 600
 Highlands Ranch, CO 80129

Report to:
Project Manager

Email To: pam.krueger@arcadis-us.com; maisha.turner@arcadis-

Project Description: **Navajo Refining Company - Artesia, NM**

City/State Collected:

Phone: 713-953-4800
 Fax:

Client Project #
TX000836.0008.00004

Lab Project #
ARCADHTX-NAVAJO

Collected by (print):
Scott Ude + HMI Team

Site/Facility ID #
TEL (QA/QC)

P.O. #

Collected by (signature):
Scott Ude

Rush? (Lab MUST Be Notified)
 ___ Same Day200%
 ___ Next Day100%
 ___ Two Day50%
 ___ Three Day25%

Date Results Needed
 Email? ___ No Yes
 FAX? ___ No ___ Yes

Immediately Packed on Ice N ___ Y

Sample ID	Comp	Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis / Container / Preservative									
								CN 250mlHDPEAmb-NaOH	DROOROLVI 40mlAmb-HCl-BT	GRO 40mlAmb-HCl	METALS 500mlHDPE-HNO3	Metals-500mlHDPE-HNO3	NO2/NO3, CL, FL, SO4 125mlHDPE-NoPres	NO2NO3 250mlHDPE-H2SO4	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl	
DUP-TEL-01			GW		11/12/14	1200	10	X	X	X	X	X	X	X	X		74
EB-TEL-01			GW		11/12/14	1235	10	X	X	X	X	X	X	X	X		75
Trip Blank-TEL-01			GW		11/12/14	---	1										76
			GW				2										
			GW				2										
			GW				2										
			GW				2										
			GW				2	X			X						

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH _____ Temp _____
 Flow _____ Other _____

Relinquished by: (Signature)
Scott Ude

Date: 11/14/14 Time: 800

Received by: (Signature)

Samples returned via: UPS FedEx Courier Other

Condition: (lab use only)

Relinquished by: (Signature)

Date: _____ Time: _____

Received by: (Signature)

Temp: 3.1 °C Bottles Received: 1287

COC Seal Intact: ___ Y ___ N ___ NA

Relinquished by: (Signature)

Date: _____ Time: _____

Received for lab by: (Signature)

Date: 11/15/14 Time: 0900

pH Checked: NCF: L2 Page 517 of 532

Chain of Custody Page 2 of 2

12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Fax: 615-758-5859

L# **L733743**

Table #

Acctnum: **ARCADHTX**
 Template: **T98003**
 Prelogin: **P487503**
 TSR: 633 - Pam Langford
 PB: 10/27/14 mb

Shipped Via: **FedEX Ground**



ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Billing Information:
 Attn: Accounts Payable
 630 Plaza Drive, Suite 600
 Highlands Ranch, CO 80129

Report to:
Project Manager

Email To: pam.krueger@arcadis-us.com; maisha.turner@arcadis-

Project Description: **Navajo Refining Company - Artesia, NM**

City/State Collected:

Phone: 713-953-4800
 Fax:

Client Project #
TX000836.0008.00004

Lab Project #
ARCADHTX-NAVAJO

Collected by (print):
Scott Wade + HMI Team

Site/Facility ID #
NCL

P.O. #

Collected by (signature):
Scott Wade
 Immediately Packed on Ice Y N

Rush? (Lab MUST Be Notified)
 ___ Same Day200%
 ___ Next Day100%
 ___ Two Day50%
 ___ Three Day25%

Date Results Needed
 Email? ___ No Yes
 FAX? ___ No ___ Yes

Analysis / Container / Preservative	
300 CL FL SO4 125mlHDPE-NoPres	6020 Ni, V, 7470 Hg 500ml HDPE - HNO3 L2
CN 250mlHDPEAmb-NaOH > 12	
DROOROLVI 40mlAmb-HCl-BT	
GRO 40mlAmb HCl	
METALS 500mlHDPE-HNO3 L2	
NO2NO3 250mlHDPE-H2SO4 L2	
TDS 250mlHDPE-NoPres	
V8260 40mlAmb-HCl	

Chain of Custody Page 1 of 2

12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859

YOUR LAB OF CHOICE

L# **L733743**

Table #

Accnum: **ARCADHTX**
 Template: **T98007**
 Prelogin: **P487504**
 TSR: 633 - Pam Langford
 PB: *10/28/14 RMB*
 Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	300 CL FL SO4 125mlHDPE-NoPres	CN 250mlHDPEAmb-NaOH > 12	DROOROLVI 40mlAmb-HCl-BT	GRO 40mlAmb HCl	METALS 500mlHDPE-HNO3 L2	NO2NO3 250mlHDPE-H2SO4 L2	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl	6020 Ni, V, 7470 Hg 500ml HDPE - HNO3 L2	Rem./Contaminant	Sample # (lab only)
MW-45		GW		11/12/14	815	10	X	X	X		X	X	X	X	X		77
MW-54A		GW		11/13/14	1125	88	X		X		X	X	X	X			78
MW-55		GW		11/13/14	930	108	X	X	X	X	X	X	X	X	X		79
MW-56		GW		11/12/14	925	88	X		X	X	X	X	X	X	X		80
MW-108		GW		11/12/14	1150	82	X		X		X	X	X	X			81
NCL-31		GW		11/12/14	1025	82	X		X		X	X	X	X			82
NCL-32		GW		11/12/14	1310	82	X		X		X	X	X	X			83
NCL-33		GW		11/12/14	1545	82	X		X		X	X	X	X			84
NCL-44		GW		11/12/14	1435	82	X		X		X	X	X	X			85
NCL-49		GW		11/13/14	1215	82	X		X		X	X	X	X			86

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH _____ Temp _____
 Flow _____ Other _____

Relinquished by: (Signature) <i>Scott Wade</i>	Date: 11/14/14	Time: 800	Received by: (Signature) <i>[Signature]</i>	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____	Hold #
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received by: (Signature) <i>[Signature]</i>	Temp: 3.1 °C Bottles Received: 1287	Condition: (lab use only)
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: 11/15/14 Time: 0900	COC Seal Intact: ___ Y ___ N ___ NA pH Checked: ___ NCF: ___ Page 518 of 532

ARCADIS US - TX
 2929 Briarpark Dr., Suite 300
 Houston, TX 77042

Billing Information:
 Attn: Accounts Payable
 630 Plaza Drive, Suite 600
 Highlands Ranch, CO 80129

Report to:
Project Manager

Email To: pam.krueger@arcadis-us.com; maisha.turner@arcadis-

Project Description: **Navajo Refining Company - Artesia, NM**

City/State Collected:

Phone: 713-953-4800
 Fax:

Client Project #
TX000836.0008.00004

Lab Project #
ARCADHTX-NAVAJO

Collected by (print):
Scott Ude + HMI Team

Site/Facility ID #
NCL (QA/QC)

P.O. #

Collected by (signature):
Scott Ude
 Immediately Packed on Ice Y N

Rush? (Lab MUST Be Notified)
 Same Day200%
 Next Day100%
 Two Day50%
 Three Day25%

Date Results Needed
 Email? No Yes
 FAX? No Yes

Analysis / Container / Preservative	
300 CL FL SQ4 125mlHDPE-NoPres	
CN 250mlHDPEAmb-NaOH	
DROOROLVI 40mlAmb-HCl-BT	
GRO 40mlAmb HCl	
METALS 500mlHDPE-HNO3 L2	
NO2NO3 250mlHDPE-H2SO4 L2	
TDS 250mlHDPE-NoPres	
V8260 40mlAmb-HCl	

Chain of Custody Page 2 of 2



L.A.B S.C.I.E.N.C.E.S
 YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859

L# **L733743**

Table #

Accnum: **ARCADHTX**
 Template: **T98007**
 Prelogin: **P487504**
 TSR: 633 - Pam Langford
 PB: **10/28/14 MB**
 Shipped Via: **FedEX Ground**

Sample ID	Comp (Grab)	Matrix *	Depth	Date	Time	No. of Cntrs	300 CL FL SQ4 125mlHDPE-NoPres	CN 250mlHDPEAmb-NaOH	DROOROLVI 40mlAmb-HCl-BT	GRO 40mlAmb HCl	METALS 500mlHDPE-HNO3 L2	NO2NO3 250mlHDPE-H2SO4 L2	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl	Rem./Contaminant	Sample # (lab only)
DUP-NCL-01		GW		11/13/14	TBD	8/8	X		X		X	X	X	X		87
EB-NCL-01		GW		11/12/14	1318 1225	8/8	X		X		X	X	X	X		88
Trip Blank-NCL-01		GW		11/12/14		1/8	X	X	X	X	X	X	X	X		89
		GW				6	X		X		X	X	X			
		GW				6	X		X		X	X	X			
		GW				6	X		X		X	X	X			
		GW				6	X		X		X	X	X			
		GW				6	X		X		X	X	X			
		GW				6	X		X		X	X	X			

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH _____ Temp _____
 Flow _____ Other _____

Relinquished by: (Signature) <i>Scott Ude</i>	Date: 11/14/14	Time: 800	Received by: (Signature) <i>[Signature]</i>	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/>	Condition: (lab use only)
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received by: (Signature) <i>[Signature]</i>	Temp: 3.1 °C Bottles Received: 1287	COC Seal Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: 11/15/14 Time: 0900	pH Checked: L2 NCF: Page 519 of 532