

GW - 028

712 Waste

YEAR(S):

2008 - Present

Chavez, Carl J, EMNRD

From: Moore, Darrell [Darrell.Moore@hollyfrontier.com]
Sent: Tuesday, November 08, 2011 2:26 PM
To: Chavez, Carl J, EMNRD; Tsinnajinnie, Leona, NMENV
Subject: Qrtly DAF
Attachments: 1110821 DAF October Final (2).pdf

Attached, please find the quarterly DAF analysis.

Darrell Moore
Environmental Manager for Water and Waste
The Holly Frontier Companies
Navajo Refining Company, LLC
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31-Oct-2011

Aaron Strange
Navajo Refining Company
PO Box 159
Artesia, NM 88211

Tel: (575) 748-3311
Fax: (575) 746-5421

Re: DAF October Resample

Work Order: 1110821

Dear Aaron,

ALS Environmental received 2 samples on 26-Oct-2011 08:50 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 26.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Electronically approved by: Yvan K. Ty

Patricia L. Lynch
Project Manager



Certificate No: T104704231-09A-TX

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RIGHT SOLUTIONS. RIGHT PARTNER.

Client: Navajo Refining Company
 Project: DAF October Resample
 Work Order: 1110821

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1110821-01	DAF	Solid		10/25/2011 09:05	10/26/2011 08:50	☐
1110821-02	Trip Blank	Water		10/25/2011	10/26/2011 08:50	☒

Client: Navajo Refining Company
Project: DAF October Resample
Work Order: 1110821

Case Narrative

Batch 56485, TCLP Semivolatiles : LCS/LCSD RPD was above the control limits for Pyridine. The individual recoveries were in control.

The analysis for Reactive Cyanide and Reactive Sulfide was subcontracted to ALS Laboratory Group in Holland, MI.

ALS Environmental

Date: 31-Oct-11

Client: Navajo Refining Company

Project: DAF October Resample

Sample ID: DAF

Collection Date: 10/25/2011 09:05 AM

Work Order: 1110821

Lab ID: 1110821-01

Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY			SW7470			
Mercury	ND		0.000200	mg/L	1	Prep Date: 10/28/2011 Analyst: JCJ 10/28/2011 03:41 PM
TCLP METALS			SW1311/6020			
Arsenic	0.0531		0.0500	mg/L	10	Prep Date: 10/27/2011 Analyst: IGF 10/28/2011 01:26 PM
Barium	ND		0.0500	mg/L	10	10/27/2011 07:43 PM
Cadmium	ND		0.0200	mg/L	10	10/27/2011 07:43 PM
Chromium	ND		0.0500	mg/L	10	10/28/2011 01:26 PM
Lead	ND		0.0500	mg/L	10	10/27/2011 07:43 PM
Selenium	0.122		0.0500	mg/L	10	10/28/2011 01:26 PM
Silver	ND		0.0500	mg/L	10	10/27/2011 07:43 PM
TCLP SEMIVOLATILES			SW1311/8270			
2,4,5-Trichlorophenol	ND		0.0050	mg/L	1	Prep Date: 10/28/2011 Analyst: JLJ 10/28/2011 05:12 PM
2,4,6-Trichlorophenol	ND		0.0050	mg/L	1	10/28/2011 05:12 PM
2,4-Dinitrotoluene	ND		0.0050	mg/L	1	10/28/2011 05:12 PM
Cresols, Total	0.020		0.015	mg/L	1	10/28/2011 05:12 PM
Hexachlorobenzene	ND		0.0050	mg/L	1	10/28/2011 05:12 PM
Hexachlorobutadiene	ND		0.0050	mg/L	1	10/28/2011 05:12 PM
Hexachloroethane	ND		0.0050	mg/L	1	10/28/2011 05:12 PM
Nitrobenzene	ND		0.0050	mg/L	1	10/28/2011 05:12 PM
Pentachlorophenol	ND		0.0050	mg/L	1	10/28/2011 05:12 PM
Pyridine	ND		0.0050	mg/L	1	10/28/2011 05:12 PM
Surr: 2,4,6-Tribromophenol	65.4		42-124	%REC	1	10/28/2011 05:12 PM
Surr: 2-Fluorobiphenyl	70.5		48-120	%REC	1	10/28/2011 05:12 PM
Surr: 2-Fluorophenol	59.2		20-120	%REC	1	10/28/2011 05:12 PM
Surr: 4-Terphenyl-d14	79.5		51-135	%REC	1	10/28/2011 05:12 PM
Surr: Nitrobenzene-d5	70.6		41-120	%REC	1	10/28/2011 05:12 PM
Surr: Phenol-d6	63.0		20-120	%REC	1	10/28/2011 05:12 PM
TCLP VOLATILES			SW1311/8260B			
1,1-Dichloroethene	ND		0.10	mg/L	20	Prep Date: 10/27/2011 Analyst: PC 10/28/2011 03:53 PM
1,2-Dichloroethane	ND		0.10	mg/L	20	10/28/2011 03:53 PM
1,4-Dichlorobenzene	ND		0.10	mg/L	20	10/28/2011 03:53 PM
2-Butanone	ND		0.20	mg/L	20	10/28/2011 03:53 PM
Benzene	ND		0.10	mg/L	20	10/28/2011 03:53 PM
Carbon tetrachloride	ND		0.10	mg/L	20	10/28/2011 03:53 PM
Chlorobenzene	ND		0.10	mg/L	20	10/28/2011 03:53 PM
Chloroform	ND		0.10	mg/L	20	10/28/2011 03:53 PM
Tetrachloroethene	ND		0.10	mg/L	20	10/28/2011 03:53 PM
Trichloroethene	ND		0.10	mg/L	20	10/28/2011 03:53 PM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Oct-11

Client: Navajo Refining Company

Project: DAF October Resample

Work Order: 1110821

Sample ID: DAF

Lab ID: 1110821-01

Collection Date: 10/25/2011 09:05 AM

Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Vinyl chloride	ND		0.10	mg/L	20	10/28/2011 03:53 PM
Surr: 1,2-Dichloroethane-d4	95.7		70-125	%REC	20	10/28/2011 03:53 PM
Surr: 4-Bromofluorobenzene	92.0		72-125	%REC	20	10/28/2011 03:53 PM
Surr: Dibromofluoromethane	94.0		71-125	%REC	20	10/28/2011 03:53 PM
Surr: Toluene-d8	96.0		75-125	%REC	20	10/28/2011 03:53 PM
REACTIVE CYANIDE			SW-846			Analyst: HN
Reactive Cyanide	ND		40.0	mg/Kg	1	10/28/2011 11:00 AM
REACTIVE SULFIDE			SW-846			Analyst: HN
Reactive Sulfide	ND		40.0	mg/Kg	1	10/28/2011 11:00 AM
IGNITABILITY			SW1030			Analyst: KAH
Ignitability, Solid	Negative			Burn Rate, mm/	1	10/26/2011 11:45 AM
PH			SW9045B			Analyst: CMC
pH	7.26		0.100	pH Units	1	10/28/2011 12:00 PM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 31-Oct-11

Client: Navajo Refining Company
Work Order: 1110821
Project: DAF October Resample

QC BATCH REPORT

Batch ID: 56466 Instrument ID ICPMS04 Method: SW1311/6020.

MBLK Sample ID: MBLKT1-102611-56466 Units: mg/L Analysis Date: 10/27/2011 06:58 PM

Client ID: Run ID: ICPMS04_111027A SeqNo: 2576971 Prep Date: 10/27/2011 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050								
Barium	ND	0.050								
Cadmium	ND	0.020								
Chromium	ND	0.050								
Lead	ND	0.050								
Selenium	ND	0.050								
Silver	ND	0.050								

MBLK Sample ID: MBLKT2-102611-56466 Units: mg/L Analysis Date: 10/27/2011 07:04 PM

Client ID: Run ID: ICPMS04_111027A SeqNo: 2576973 Prep Date: 10/27/2011 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050								
Barium	ND	0.050								
Cadmium	ND	0.020								
Chromium	ND	0.050								
Lead	ND	0.050								
Selenium	ND	0.050								
Silver	ND	0.050								

MBLK Sample ID: MBLKW3-102711-56466 Units: mg/L Analysis Date: 10/27/2011 07:11 PM

Client ID: Run ID: ICPMS04_111027A SeqNo: 2576975 Prep Date: 10/27/2011 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050								
Barium	ND	0.050								
Cadmium	ND	0.020								
Chromium	ND	0.050								
Lead	ND	0.050								
Selenium	ND	0.050								
Silver	ND	0.050								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
Work Order: 1110821
Project: DAF October Resample

QC BATCH REPORT

Batch ID: **56466** Instrument ID **ICPMS04** Method: **SW1311/6020**

LCS Sample ID: **MLCSW3-102711-56466** Units: **mg/L** Analysis Date: **10/27/2011 07:17 PM**

Client ID: Run ID: **ICPMS04_111027A** SeqNo: **2576976** Prep Date: **10/27/2011** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.5001	0.050	0.5	0	100	80-120	0			
Barium	0.4896	0.050	0.5	0	97.9	80-120	0			
Cadmium	0.512	0.020	0.5	0	102	80-120	0			
Chromium	0.5109	0.050	0.5	0	102	80-120	0			
Lead	0.5105	0.050	0.5	0	102	80-120	0			
Selenium	0.502	0.050	0.5	0	100	80-120	0			
Silver	0.4995	0.050	0.5	0	99.9	80-120	0			

MS Sample ID: **1110821-01AMS** Units: **mg/L** Analysis Date: **10/27/2011 07:56 PM**

Client ID: **DAF** Run ID: **ICPMS04_111027A** SeqNo: **2576982** Prep Date: **10/27/2011** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.5379	0.050	0.5	0.05341	96.9	75-125	0			
Barium	0.5094	0.050	0.5	0.04186	93.5	75-125	0			
Cadmium	0.4777	0.020	0.5	0.000145	95.5	75-125	0			
Chromium	0.4669	0.050	0.5	0.000241	93.3	75-125	0			
Lead	0.477	0.050	0.5	0.000038	95.4	75-125	0			
Selenium	0.5567	0.050	0.5	0.1129	88.8	75-125	0			
Silver	0.4457	0.050	0.5	0.00272	88.6	75-125	0			

MSD Sample ID: **1110821-01AMSD** Units: **mg/L** Analysis Date: **10/27/2011 08:03 PM**

Client ID: **DAF** Run ID: **ICPMS04_111027A** SeqNo: **2576983** Prep Date: **10/27/2011** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.5693	0.050	0.5	0.05341	103	75-125	0.5379	5.66	25	
Barium	0.5289	0.050	0.5	0.04186	97.4	75-125	0.5094	3.76	25	
Cadmium	0.5024	0.020	0.5	0.000145	100	75-125	0.4777	5.03	25	
Chromium	0.4968	0.050	0.5	0.000241	99.3	75-125	0.4669	6.22	25	
Lead	0.5155	0.050	0.5	0.000038	103	75-125	0.477	7.75	25	
Selenium	0.6315	0.050	0.5	0.1129	104	75-125	0.5567	12.6	25	
Silver	0.4741	0.050	0.5	0.00272	94.3	75-125	0.4457	6.18	25	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
Work Order: 1110821
Project: DAF October Resample

QC BATCH REPORT

Batch ID: **56466** Instrument ID **ICPMS04** Method: **SW1311/6020**

DUP Sample ID: **1110821-01ADUP** Units: **mg/L** Analysis Date: **10/27/2011 07:50 PM**
Client ID: **DAF** Run ID: **ICPMS04_111027A** SeqNo: **2576981** Prep Date: **10/27/2011** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.054	0.050	0	0	0	0-0	0.05341	1.11	25	
Barium	0.04363	0.050	0	0	0	0-0	0.04186	0	25	J
Cadmium	ND	0.020	0	0	0	0-0	0.000145	0	25	
Chromium	ND	0.050	0	0	0	0-0	0.000241	0	25	
Lead	ND	0.050	0	0	0	0-0	0.000038	0	25	
Selenium	0.1157	0.050	0	0	0	0-0	0.1129	2.52	25	
Silver	ND	0.050	0	0	0	0-0	0.00272	0	25	

The following samples were analyzed in this batch:

1110821-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1110821
 Project: DAF October Resample

QC BATCH REPORT

Batch ID: 56498 Instrument ID Mercury Method: SW7470

MBLK Sample ID: GBLKW3-102811-56498 Units: mg/L Analysis Date: 10/28/2011 03:15 PM

Client ID: Run ID: MERCURY_111028A SeqNo: 2577887 Prep Date: 10/28/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

MBLK Sample ID: GBLKT1-102711-56498 Units: mg/L Analysis Date: 10/28/2011 03:23 PM

Client ID: Run ID: MERCURY_111028A SeqNo: 2577891 Prep Date: 10/28/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

LCS Sample ID: GLCSW3-102811-56498 Units: mg/L Analysis Date: 10/28/2011 03:18 PM

Client ID: Run ID: MERCURY_111028A SeqNo: 2577889 Prep Date: 10/28/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0045	0.00020	0.005	0	90	80-120	0			

MS Sample ID: 1110789-01BMS Units: mg/L Analysis Date: 10/28/2011 03:29 PM

Client ID: Run ID: MERCURY_111028A SeqNo: 2577896 Prep Date: 10/28/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00452	0.00020	0.005	-0.000042	91.2	75-125	0			

MSD Sample ID: 1110789-01BMSD Units: mg/L Analysis Date: 10/28/2011 03:31 PM

Client ID: Run ID: MERCURY_111028A SeqNo: 2577897 Prep Date: 10/28/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00456	0.00020	0.005	-0.000042	92	75-125	0.00452	0.881	20	

DUP Sample ID: 1110789-01BDUP Units: mg/L Analysis Date: 10/28/2011 03:27 PM

Client ID: Run ID: MERCURY_111028A SeqNo: 2577895 Prep Date: 10/28/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020	0	0	0	0-0	-0.000042	0	20	

The following samples were analyzed in this batch:

1110821-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1110821
 Project: DAF October Resample

QC BATCH REPORT

Batch ID: **56485** Instrument ID **SV-3** Method: **SW1311/8270**

MBLK Sample ID: **SBLKT1-111027-56485** Units: **µg/L** Analysis Date: **10/28/2011 03:12 PM**

Client ID: Run ID: **SV-3_111028C** SeqNo: **2578277** Prep Date: **10/28/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	ND	5.0								
2,4,6-Trichlorophenol	ND	5.0								
2,4-Dinitrotoluene	ND	5.0								
Cresols, Total	ND	15								
Hexachlorobenzene	ND	5.0								
Hexachlorobutadiene	ND	5.0								
Hexachloroethane	ND	5.0								
Nitrobenzene	ND	5.0								
Pentachlorophenol	ND	5.0								
Pyridine	ND	5.0								
Surr: 2,4,6-Tribromophenol	73.83	5.0	100	0	73.8	42-124	0			
Surr: 2-Fluorobiphenyl	74.6	5.0	100	0	74.6	48-120	0			
Surr: 2-Fluorophenol	64.9	5.0	100	0	64.9	20-120	0			
Surr: 4-Terphenyl-d14	80.8	5.0	100	0	80.8	51-135	0			
Surr: Nitrobenzene-d5	77.74	5.0	100	0	77.7	41-120	0			
Surr: Phenol-d6	66.15	5.0	100	0	66.1	20-120	0			

LCS Sample ID: **SLCST1-111027-56485** Units: **µg/L** Analysis Date: **10/28/2011 03:36 PM**

Client ID: Run ID: **SV-3_111028C** SeqNo: **2578278** Prep Date: **10/28/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	77.59	5.0	100	0	77.6	52-115	0			
2,4,6-Trichlorophenol	66.86	5.0	100	0	66.9	53-115	0			
2,4-Dinitrotoluene	41.32	5.0	50	0	82.6	56-115	0			
Cresols, Total	211.6	15	250	0	84.6	35-115	0			
Hexachlorobenzene	46.9	5.0	50	0	93.8	54-115	0			
Hexachlorobutadiene	43.13	5.0	50	0	86.3	51-115	0			
Hexachloroethane	45.18	5.0	50	0	90.4	54-115	0			
Nitrobenzene	44.32	5.0	50	0	88.6	40-124	0			
Pentachlorophenol	72.64	5.0	100	0	72.6	45-125	0			
Pyridine	22.52	5.0	50	0	45	34-115	0			
Surr: 2,4,6-Tribromophenol	68.07	5.0	100	0	68.1	42-124	0			
Surr: 2-Fluorobiphenyl	78.47	5.0	100	0	78.5	48-120	0			
Surr: 2-Fluorophenol	80.99	5.0	100	0	81	20-120	0			
Surr: 4-Terphenyl-d14	76.29	5.0	100	0	76.3	51-135	0			
Surr: Nitrobenzene-d5	81.51	5.0	100	0	81.5	41-120	0			
Surr: Phenol-d6	76.83	5.0	100	0	76.8	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1110821
 Project: DAF October Resample

QC BATCH REPORT

Batch ID: 56485 Instrument ID SV-3 Method: SW1311/8270

LCSD Sample ID: SLCSDT1-111027-56485 Units: µg/L Analysis Date: 10/28/2011 04:23 PM

Client ID: Run ID: SV-3_111028C SeqNo: 2578279 Prep Date: 10/28/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	71.92	5.0	100	0	71.9	52-115	77.59	7.59	25	
2,4,6-Trichlorophenol	61.67	5.0	100	0	61.7	53-115	66.86	8.08	25	
2,4-Dinitrotoluene	40.67	5.0	50	0	81.3	56-115	41.32	1.57	25	
Cresols, Total	174.6	15	250	0	69.9	35-115	211.6	19.2	25	
Hexachlorobenzene	42.54	5.0	50	0	85.1	54-115	46.9	9.74	25	
Hexachlorobutadiene	41.54	5.0	50	0	83.1	51-115	43.13	3.74	25	
Hexachloroethane	42.75	5.0	50	0	85.5	54-115	45.18	5.52	25	
Nitrobenzene	41.92	5.0	50	0	83.8	40-124	44.32	5.56	25	
Pentachlorophenol	68.05	5.0	100	0	68.1	45-125	72.64	6.52	25	
Pyridine	30.21	5.0	50	0	60.4	34-115	22.52	29.2	25	R
Surr: 2,4,6-Tribromophenol	63.9	5.0	100	0	63.9	42-124	68.07	6.32	25	
Surr: 2-Fluorobiphenyl	72.08	5.0	100	0	72.1	48-120	78.47	8.49	25	
Surr: 2-Fluorophenol	74.02	5.0	100	0	74	20-120	80.99	9	25	
Surr: 4-Terphenyl-d14	69.16	5.0	100	0	69.2	51-135	76.29	9.8	25	
Surr: Nitrobenzene-d5	77.25	5.0	100	0	77.3	41-120	81.51	5.37	25	
Surr: Phenol-d6	67.06	5.0	100	0	67.1	20-120	76.83	13.6	25	

The following samples were analyzed in this batch:

1110821-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1110821
 Project: DAF October Resample

QC BATCH REPORT

Batch ID: R118469 Instrument ID VOA1 Method: SW1311/8260B

MBLK Sample ID: VBLKW-102811-R118469 Units: µg/L Analysis Date: 10/28/2011 11:12 AM

Client ID: Run ID: VOA1_111028B SeqNo: 2578028 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2-Butanone	ND	10								
Benzene	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroform	ND	5.0								
Tetrachloroethene	ND	5.0								
Trichloroethene	ND	5.0								
Vinyl chloride	ND	2.0								
Surr: 1,2-Dichloroethane-d4	48.47	5.0	50	0	96.9	70-125	0			
Surr: 4-Bromofluorobenzene	47.73	5.0	50	0	95.5	72.4-125	0			
Surr: Dibromofluoromethane	47.71	5.0	50	0	95.4	71.2-125	0			
Surr: Toluene-d8	48.73	5.0	50	0	97.5	75-125	0			

MBLK Sample ID: MBLKV1-102611-R118469 Units: µg/L Analysis Date: 10/28/2011 03:27 PM

Client ID: Run ID: VOA1_111028B SeqNo: 2578033 Prep Date: 10/27/2011 DF: 20

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	100								
1,2-Dichloroethane	ND	100								
1,4-Dichlorobenzene	ND	100								
2-Butanone	ND	200								
Benzene	ND	100								
Carbon tetrachloride	ND	100								
Chlorobenzene	ND	100								
Chloroform	ND	100								
Tetrachloroethene	ND	100								
Trichloroethene	ND	100								
Vinyl chloride	ND	40								
Surr: 1,2-Dichloroethane-d4	939.6	100	1000	0	94	70-125	0			
Surr: 4-Bromofluorobenzene	931	100	1000	0	93.1	72.4-125	0			
Surr: Dibromofluoromethane	951.9	100	1000	0	95.2	71.2-125	0			
Surr: Toluene-d8	974.9	100	1000	0	97.5	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1110821
 Project: DAF October Resample

QC BATCH REPORT

Batch ID: R118469 Instrument ID VOA1 Method: SW1311/8260B

LCS Sample ID: VLCSW-102811-R118469 Units: µg/L Analysis Date: 10/28/2011 10:20 AM

Client ID: Run ID: VOA1_111028B SeqNo: 2578027 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	47.85	5.0	50	0	95.7	73-124	0			
1,2-Dichloroethane	48.25	5.0	50	0	96.5	76-120	0			
1,4-Dichlorobenzene	49.12	5.0	50	0	98.2	70-130	0			
2-Butanone	92.95	10	100	0	92.9	70-130	0			
Benzene	46.66	5.0	50	0	93.3	70-128	0			
Carbon tetrachloride	50.38	5.0	50	0	101	70-130	0			
Chlorobenzene	50.32	5.0	50	0	101	72-127	0			
Chloroform	47.33	5.0	50	0	94.7	70-130	0			
Tetrachloroethene	51.46	5.0	50	0	103	70-130	0			
Trichloroethene	52.44	5.0	50	0	105	72-129	0			
Vinyl chloride	41.42	2.0	50	0	82.8	70-130	0			
Surr: 1,2-Dichloroethane-d4	45.91	5.0	50	0	91.8	70-125	0			
Surr: 4-Bromofluorobenzene	50.18	5.0	50	0	100	72-125	0			
Surr: Dibromofluoromethane	47.24	5.0	50	0	94.5	71-125	0			
Surr: Toluene-d8	48.68	5.0	50	0	97.4	75-125	0			

MS Sample ID: 1110919-01ZMS Units: µg/L Analysis Date: 10/28/2011 02:36 PM

Client ID: Run ID: VOA1_111028B SeqNo: 2578030 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	51.31	5.0	50	0	103	73-124	0			
1,2-Dichloroethane	50.28	5.0	50	0	101	76-120	0			
1,4-Dichlorobenzene	50.37	5.0	50	0	101	70-130	0			
2-Butanone	91.6	10	100	0	91.6	70-130	0			
Benzene	50.71	5.0	50	0	101	70-128	0			
Carbon tetrachloride	50.77	5.0	50	0	102	70-130	0			
Chlorobenzene	49.81	5.0	50	0	99.6	72-127	0			
Chloroform	48.83	5.0	50	0	97.7	70-130	0			
Tetrachloroethene	88.25	5.0	50	40.02	96.5	70-130	0			
Trichloroethene	57.87	5.0	50	9.628	96.5	72-129	0			
Vinyl chloride	46.97	2.0	50	0	93.9	70-130	0			
Surr: 1,2-Dichloroethane-d4	47.87	5.0	50	0	95.7	70-125	0			
Surr: 4-Bromofluorobenzene	47.93	5.0	50	0	95.9	72-125	0			
Surr: Dibromofluoromethane	46.88	5.0	50	0	93.8	71-125	0			
Surr: Toluene-d8	47.73	5.0	50	0	95.5	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1110821
 Project: DAF October Resample

QC BATCH REPORT

Batch ID: R118469 Instrument ID VOA1 Method: SW1311/8260B

MSD Sample ID: 1110919-01ZMSD Units: µg/L Analysis Date: 10/28/2011 03:02 PM

Client ID: Run ID: VOA1_111028B SeqNo: 2578032 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	52.54	5.0	50	0	105	73-124	51.31	2.38	20	
1,2-Dichloroethane	53.74	5.0	50	0	107	76-120	50.28	6.66	20	
1,4-Dichlorobenzene	51.12	5.0	50	0	102	70-130	50.37	1.48	20	
2-Butanone	95.07	10	100	0	95.1	70-130	91.6	3.71	20	
Benzene	53.48	5.0	50	0	107	70-128	50.71	5.31	20	
Carbon tetrachloride	53.13	5.0	50	0	106	70-130	50.77	4.54	20	
Chlorobenzene	51.41	5.0	50	0	103	72-127	49.81	3.17	20	
Chloroform	51.9	5.0	50	0	104	70-130	48.83	6.1	20	
Tetrachloroethene	85.83	5.0	50	40.02	91.6	70-130	88.25	2.77	20	
Trichloroethene	64.06	5.0	50	9.628	109	72-129	57.87	10.1	20	
Vinyl chloride	47.01	2.0	50	0	94	70-130	46.97	0.0856	20	
Surr: 1,2-Dichloroethane-d4	46.37	5.0	50	0	92.7	70-125	47.87	3.18	20	
Surr: 4-Bromofluorobenzene	48.75	5.0	50	0	97.5	72-125	47.93	1.69	20	
Surr: Dibromofluoromethane	49.31	5.0	50	0	98.6	71-125	46.88	5.04	20	
Surr: Toluene-d8	48.91	5.0	50	0	97.8	75-125	47.73	2.46	20	

The following samples were analyzed in this batch:

1110821-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
Work Order: 1110821
Project: DAF October Resample

QC BATCH REPORT

Batch ID: **R118341** Instrument ID **WetChem** Method: **SW1030**

DUP Sample ID: **1110707-11CDUP** Units: **Burn Rate, mm/se** Analysis Date: **10/26/2011 11:45 AM**

Client ID: Run ID: **WETCHEM_111026F** SeqNo: **2575446** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ignitability, Solid	ND	0	0	0	0		0	0		

The following samples were analyzed in this batch:

1110821-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
Work Order: 1110821
Project: DAF October Resample

QC BATCH REPORT

Batch ID: **R118448** Instrument ID **WetChem** Method: **SW9045B**

LCS Sample ID: **WLCSS1-102811-R118448** Units: **pH Units** Analysis Date: **10/28/2011 12:00 PM**

Client ID: Run ID: **WETCHEM_111028D** SeqNo: **2577645** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	5.97	0.10	6	0	99.5	90-110	0			

DUP Sample ID: **1110742-05BDUP** Units: **pH Units** Analysis Date: **10/28/2011 12:00 PM**

Client ID: Run ID: **WETCHEM_111028D** SeqNo: **2577658** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.6	0.10	0	0	0	0-0	7.56	0.528	20	

The following samples were analyzed in this batch:

1110821-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 31-Oct-11

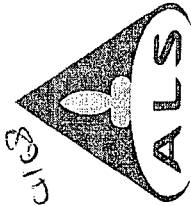
Client: Navajo Refining Company
Project: DAF October Resample
WorkOrder: 1110821

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Units Reported	Description
Turn Rate, mm/sec	
mg/Kg	Milligrams per Kilogram
mg/L	Milligrams per Liter
pH Units	



ALS Laboratory Group
10450 Stancil Rd. #210
Houston, Texas 77099
(Tel) 281.530.5656
(Fax) 281.530.5887

Chain of Custody Form

Page 1 of 1

1110821

NAVAJO REFINING: Navajo Refining Company

Project: DAF October Resample



ALS Project Manager: Chris Bryson

Customer Information				Project Information													
Purchase Order	Project Name			DAF October Resample													
Work Order	Project Number			A. TCLP Volatiles													
Company Name	Navajo Refining Company			B. TCLP Semi-Volatiles													
Send Report To	Invoice Attn:			C. TCLP Metals													
Address	Address			D. R. C. I.													
City/State/Zip	City/State/Zip			E.													
Phone	Phone			F.													
Fax	Fax			G.													
e-Mail Address	e-Mail Address			H.													
				I.													
				J.													
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	DAF	10/25/11	9:05	Solid	None	1	X	X	X	X							
2	Trip Blank					2											
3	Temperature Blank					1											
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s): Please Print & Sign <i>Aaron Strange</i>		Shipment Method: Federal Express		Required Turnaround Time: ☐ STD 10 Wk Days ☐ 5 Wk Days ☒ 2 Wk Days ☐ Other		Results Due Date	
Relinquished by: <i>Chris Bryson</i>	Date: 10-25-11	Time: 16:15	Received by: <i>Chris Bryson</i>	Date: 10-26-11	Time: 08:50	Notes: Rush Turnaround - Two Days	
Relinquished by:	Date:	Time:	Received by (Laboratory):	Date:	Time:	QC Package: (Check Box Below)	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	Date:	Time:	Level II: Standard QC	
Preservative Key:	1-HCL	2-HNO3	3-H2SO4	4-NaOH	5-Na2S2O3	6-NaHSO4	7-Other
							Level III: Std QC + Raw Data
							Level IV: SW846 CLP-Like
							Other:

Client: ALS Environmental
Project: 1110821
Work Order: 1110974

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1110974-01	1110821-01B	Solid		10/25/2011 09:05	10/28/2011 11:00	☐

Client: ALS Environmental
Project: 1110821
WorkOrder: 1110974

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier Description

*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym Description

DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
SD	Serial Dilution
TDL	Target Detection Limit

Units Reported Description

mg/Kg	Milligrams per Kilogram
-------	-------------------------

ALS Group USA, Corp

Date: 28-Oct-11

Client: ALS Environmental
Project: 1110821
Sample ID: 1110821-01B
Collection Date: 10/25/2011 09:05 AM

Work Order: 1110974
Lab ID: 1110974-01
Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
CYANIDE, REACTIVE Cyanide, Reactive	ND		SW7.3.3.2 40.0	mg/Kg	1	Analyst: NZ 10/28/2011 11:00 AM
SULFIDE, REACTIVE Sulfide, Reactive	ND		SW7.3.4.2 40.0	mg/Kg	1	Analyst: NZ 10/28/2011 11:00 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 28-Oct-11

Client: ALS Environmental
Work Order: 1110974
Project: 1110821

QC BATCH REPORT

Batch ID: **R96770** Instrument ID **WETCHEM** Method: **SW7.3.4.2**

MBLK	Sample ID: MB-R96770-R96770				Units: mg/Kg		Analysis Date: 10/26/2011 11:00 AM			
Client ID:	Run ID: WETCHEM 111026F				SeqNo: 1794355		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide, Reactive	ND		40							

The following samples were analyzed in this batch:

1110974-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ALS Environmental
Work Order: 1110974
Project: 1110821

QC BATCH REPORT

Batch ID: R96772 Instrument ID WETCHEM Method: SW7.3.3.2

MBLK Sample ID: MB-R96772-R96772 Units: mg/Kg Analysis Date: 10/26/2011 11:00 AM
Client ID: Run ID: WETCHEM_111026G SeqNo: 1794384 Prep Date: DF: 1
Analyte Result PQL SPK Val SPK Ref Value %REC Control Limit RPD Ref Value %RPD RPD Limit Qual

Cyanide, Reactive ND 40

LCS Sample ID: LCS-R96772-R96772 Units: mg/Kg Analysis Date: 10/26/2011 11:00 AM
Client ID: Run ID: WETCHEM_111026G SeqNo: 1794385 Prep Date: DF: 1
Analyte Result PQL SPK Val SPK Ref Value %REC Control Limit RPD Ref Value %RPD RPD Limit Qual

Cyanide, Reactive 249.6 40 250 0 99.8 75-125 0

LCSD Sample ID: LCSD-R96772-R96772 Units: mg/Kg Analysis Date: 10/26/2011 11:00 AM
Client ID: Run ID: WETCHEM_111026G SeqNo: 1794392 Prep Date: DF: 1
Analyte Result PQL SPK Val SPK Ref Value %REC Control Limit RPD Ref Value %RPD RPD Limit Qual

Cyanide, Reactive 249.6 40 250 0 99.8 75-125 249.6 0 35

MS Sample ID: 1110883-02A MS Units: mg/Kg Analysis Date: 10/28/2011 11:00 AM
Client ID: Run ID: WETCHEM_111026G SeqNo: 1797881 Prep Date: DF: 1
Analyte Result PQL SPK Val SPK Ref Value %REC Control Limit RPD Ref Value %RPD RPD Limit Qual

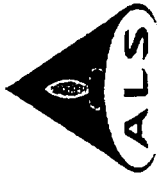
Cyanide, Reactive 249.6 40 250 0 99.8 50-150 0

MSD Sample ID: 1110883-02A MSD Units: mg/Kg Analysis Date: 10/28/2011 11:00 AM
Client ID: Run ID: WETCHEM_111026G SeqNo: 1797882 Prep Date: DF: 1
Analyte Result PQL SPK Val SPK Ref Value %REC Control Limit RPD Ref Value %RPD RPD Limit Qual

Cyanide, Reactive 249.6 40 250 0 99.8 50-150 249.6 0 35

The following samples were analyzed in this batch: 1110974-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



Subcontractor:
ALS Laboratory Group
3352 128th Ave.
Holland, MI 49424

TEL: (616) 399-6070
FAX: (616) 399-6185
Acct #:

Salesperson: Jeffrey L. Croston

CHAIN-OF-CUSTODY RECORD

Date: 26-Oct-11
COC ID: 11125
Due Date: 28-Oct-11

Page 1 of 1

1110974

Customer Information		Project Information		Parameter/Method Request for Analysis												
Purchase Order	Project Name	Project Number	A Reactive Cyanide (SW-846)													
Work Order	Project Number	Project Number	B Reactive Sulfide (SW-846)													
Company Name	ALS Group USA, Corp.	Bill To Company	C													
Send Report To	Patricia L. Lynch	Inv Attn	D													
Address	10450 Stanciliff Rd, Suite 210	Address	E													
City/State/Zip	Houston, Texas 77099-4338	City/State/Zip	F													
Phone	(281) 530-5656	Phone	G													
Fax	(281) 530-5887	Fax	H													
eMail Address	pat.lynych@alsenviro.com	eMail CC	I													
Sample ID	Matrix	Collection Date	24hr	Bottle	A	B	C	D	E	F	G	H	I	J		
1110821-01B (DAF)	Solid	25/Oct/2011 9:05	(1) 4OZGNEAT		X											

Comments:

Please analyze for reactive cyanide & reactive sulfide. cc Mary.knowles & Yvan.ty@alsglobal.com

uf

Relinquished by:		Received by:		Cooler IDs		Report/QC Level	
Date/Time	Signature	Date/Time	Signature	Date/Time	Signature	Date/Time	Signature
10/26/11	[Signature]	10/26/11	Jessie Baer	100	6.0C		

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: ALS - HOUSTON

Date/Time Received: 28-Oct-11 11:00

Work Order: 1110974

Received by: JB

Checklist completed by Jessica Dacan
eSignature

28-Oct-11
Date

Reviewed by: Bill Carey
eSignature

28-Oct-11
Date

Matrices: solid

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	<u>6.0 C</u>		
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

Chavez, Carl J, EMNRD

From: Moore, Darrell [Darrell.Moore@hollyfrontier.com]
Sent: Wednesday, August 17, 2011 10:06 AM
To: Chavez, Carl J, EMNRD; Cobrain, Dave, NMENV; Tsinnajinnie, Leona, NMENV
Subject: DAF Analysis
Attachments: 1107429 DAF Final.pdf

Attached, please find our Quarterly DAF analysis. The DAF is still being managed as non-hazardous waste.

Darrell Moore
Environmental Manager for Water and Waste
The HollyFrontier Companies
Phone Number 575-746-5281
Cell Number 575-703-5058
Fax Number 575-746-5451

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26-Jul-2011

Aaron Strange
Navajo Refining Company
PO Box 159
Artesia, NM 88211

Tel: (575) 748-3311
Fax: (575) 746-5421

Re: DAF

Work Order: 1107429

Dear Aaron,

ALS Environmental received 1 sample on 14-Jul-2011 09:20 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 26.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Electronically approved by Makenzie L. Henderson

Chris Bryson
Project Manager



Certificate No. T104704231-09A-TX

4107429-001 104704231-09A-TX 210 Houston, Texas 77099-4338 TEL (281) 531-3650 FAX (281) 531-3657

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RIGHT SOLUTIONS. RIGHT PARTNER.

ALS Environmental

Date: 26-Jul-11

Client: Navajo Refining Company
Project: DAF
Work Order: 1107429

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1107429-01	DAF	Solid		7/13/2011 09:22	7/14/2011 09:20	☐

ALS Environmental

Date: 26-Jul-11

Client: Navajo Refining Company
Project: DAF
Work Order: 1107429

Case Narrative

The analysis for Reactive Cyanide and Reactive Sulfide was subcontracted to ALS Laboratory Group in Holland, MI.

ALS Environmental

Date: 26-Jul-11

Client: Navajo Refining Company
Project: DAF
Sample ID: DAF
Collection Date: 7/13/2011 09:22 AM

Work Order: 1107429
Lab ID: 1107429-01
Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY			SW7470		Prep Date: 7/20/2011	Analyst: JCJ
Mercury	0.000316		0.000200	mg/L	1	7/20/2011 03:14 PM
TCLP METALS			SW1311/6020		Prep Date: 7/20/2011	Analyst: SKS
Arsenic	ND		0.0500	mg/L	10	7/20/2011 04:17 PM
Barium	0.119		0.0500	mg/L	10	7/20/2011 04:17 PM
Cadmium	ND		0.0200	mg/L	10	7/20/2011 04:17 PM
Chromium	ND		0.0500	mg/L	10	7/20/2011 04:17 PM
Lead	ND		0.0500	mg/L	10	7/20/2011 04:17 PM
Selenium	0.255		0.0500	mg/L	10	7/20/2011 04:17 PM
Silver	ND		0.0500	mg/L	10	7/20/2011 04:17 PM
TCLP SEMIVOLATILES			SW1311/8270		Prep Date: 7/20/2011	Analyst: ACN
2,4,5-Trichlorophenol	ND		0.0050	mg/L	1	7/20/2011 09:45 PM
2,4,6-Trichlorophenol	ND		0.0050	mg/L	1	7/20/2011 09:45 PM
2,4-Dinitrotoluene	ND		0.0050	mg/L	1	7/20/2011 09:45 PM
Cresols, Total	ND		0.015	mg/L	1	7/20/2011 09:45 PM
Hexachlorobenzene	ND		0.0050	mg/L	1	7/20/2011 09:45 PM
Hexachlorobutadiene	ND		0.0050	mg/L	1	7/20/2011 09:45 PM
Hexachloroethane	ND		0.0050	mg/L	1	7/20/2011 09:45 PM
Nitrobenzene	ND		0.0050	mg/L	1	7/20/2011 09:45 PM
Pentachlorophenol	ND		0.0050	mg/L	1	7/20/2011 09:45 PM
Pyridine	ND		0.0050	mg/L	1	7/20/2011 09:45 PM
Surr: 2,4,6-Tribromophenol	73.8		42-124	%REC	1	7/20/2011 09:45 PM
Surr: 2-Fluorobiphenyl	51.4		48-120	%REC	1	7/20/2011 09:45 PM
Surr: 2-Fluorophenol	35.0		20-120	%REC	1	7/20/2011 09:45 PM
Surr: 4-Terphenyl-d14	69.5		51-135	%REC	1	7/20/2011 09:45 PM
Surr: Nitrobenzene-d5	45.8		41-120	%REC	1	7/20/2011 09:45 PM
Surr: Phenol-d6	43.6		20-120	%REC	1	7/20/2011 09:45 PM
TCLP VOLATILES			SW1311/8260B		Prep Date: 7/20/2011	Analyst: PC
1,1-Dichloroethene	ND		0.10	mg/L	20	7/21/2011 08:11 PM
1,2-Dichloroethane	ND		0.10	mg/L	20	7/21/2011 08:11 PM
1,4-Dichlorobenzene	ND		0.10	mg/L	20	7/21/2011 08:11 PM
2-Butanone	ND		0.20	mg/L	20	7/21/2011 08:11 PM
Benzene	ND		0.10	mg/L	20	7/21/2011 08:11 PM
Carbon tetrachloride	ND		0.10	mg/L	20	7/21/2011 08:11 PM
Chlorobenzene	ND		0.10	mg/L	20	7/21/2011 08:11 PM
Chloroform	ND		0.10	mg/L	20	7/21/2011 08:11 PM
Tetrachloroethene	ND		0.10	mg/L	20	7/21/2011 08:11 PM
Trichloroethene	ND		0.10	mg/L	20	7/21/2011 08:11 PM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 26-Jul-11

Client: Navajo Refining Company

Project: DAF

Work Order: 1107429

Sample ID: DAF

Lab ID: 1107429-01

Collection Date: 7/13/2011 09:22 AM

Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Vinyl chloride	ND		0.10	mg/L	20	7/21/2011 08:11 PM
Surr: 1,2-Dichloroethane-d4	90.2		70-125	%REC	20	7/21/2011 08:11 PM
Surr: 4-Bromofluorobenzene	98.4		72-125	%REC	20	7/21/2011 08:11 PM
Surr: Dibromofluoromethane	94.9		71-125	%REC	20	7/21/2011 08:11 PM
Surr: Toluene-d8	96.5		75-125	%REC	20	7/21/2011 08:11 PM
REACTIVE CYANIDE			SW-846			Analyst: HN
Reactive Cyanide	ND		40.0	mg/Kg	1	7/18/2011 02:00 PM
REACTIVE SULFIDE			SW-846			Analyst: HN
Reactive Sulfide	ND		40.0	mg/Kg	1	7/19/2011 02:00 PM
IGNITABILITY			SW1030			Analyst: KAH
Ignitability, Solid	Negative			Burn Rate, mm/	1	7/26/2011 05:00 PM
PH			SW9045B			Analyst: DM
pH	7.25		0.100	pH Units	1	7/17/2011 04:15 PM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 26-Jul-11

Client: Navajo Refining Company
Work Order: 1107429
Project: DAF

QC BATCH REPORT

Batch ID: 54059 Instrument ID Mercury Method: SW7470

MBLK Sample ID: GBLKW1-072011-54059 Units: mg/L Analysis Date: 7/20/2011 02:22 PM

Client ID: Run ID: MERCURY_110720A SeqNo: 2465482 Prep Date: 7/20/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

MBLK Sample ID: GBLKT1-071911-54059 Units: mg/L Analysis Date: 7/20/2011 02:50 PM

Client ID: Run ID: MERCURY_110720A SeqNo: 2465490 Prep Date: 7/20/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

LCS Sample ID: GLCSW1-072011-54059 Units: mg/L Analysis Date: 7/20/2011 02:24 PM

Client ID: Run ID: MERCURY_110720A SeqNo: 2465483 Prep Date: 7/20/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00496	0.00020	0.005	0	99.2	80-120	0			

MS Sample ID: 1107542-01AMS Units: mg/L Analysis Date: 7/20/2011 02:38 PM

Client ID: Run ID: MERCURY_110720A SeqNo: 2465486 Prep Date: 7/20/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00513	0.00020	0.005	-0.000015	103	75-125	0			

MSD Sample ID: 1107542-01AMSD Units: mg/L Analysis Date: 7/20/2011 02:40 PM

Client ID: Run ID: MERCURY_110720A SeqNo: 2465487 Prep Date: 7/20/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00523	0.00020	0.005	-0.000015	105	75-125	0.00513	1.93	20	

DUP Sample ID: 1107542-01ADUP Units: mg/L Analysis Date: 7/20/2011 02:34 PM

Client ID: Run ID: MERCURY_110720A SeqNo: 2465485 Prep Date: 7/20/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020	0	0	0	0-0	-0.000015	0	20	

The following samples were analyzed in this batch:

1107429-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation

QC Page: 1 of 10

Client: Navajo Refining Company
 Work Order: 1107429
 Project: DAF

QC BATCH REPORT

Batch ID: 54067 Instrument ID ICPMS05 Method: SW1311/6020

MBLK Sample ID: MBLKT1-071911-54067 Units: mg/L Analysis Date: 7/20/2011 03:32 PM

Client ID: Run ID: ICPMS05_110720A SeqNo: 2465712 Prep Date: 7/20/2011 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050								
Barium	ND	0.050								
Cadmium	ND	0.020								
Chromium	ND	0.050								
Lead	ND	0.050								
Selenium	ND	0.050								
Silver	ND	0.050								

MBLK Sample ID: MBLKW3-072011-54067 Units: mg/L Analysis Date: 7/20/2011 03:35 PM

Client ID: Run ID: ICPMS05_110720A SeqNo: 2465713 Prep Date: 7/20/2011 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050								
Barium	ND	0.050								
Cadmium	ND	0.020								
Chromium	ND	0.050								
Lead	ND	0.050								
Selenium	ND	0.050								
Silver	ND	0.050								

LCS Sample ID: MLCW3-072011-54067 Units: mg/L Analysis Date: 7/20/2011 03:37 PM

Client ID: Run ID: ICPMS05_110720A SeqNo: 2465714 Prep Date: 7/20/2011 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.4714	0.050	0.5	0	94.3	80-120	0			
Barium	0.468	0.050	0.5	0	93.6	80-120	0			
Cadmium	0.4887	0.020	0.5	0	97.7	80-120	0			
Chromium	0.4824	0.050	0.5	0	96.5	80-120	0			
Lead	0.4817	0.050	0.5	0	96.3	80-120	0			
Selenium	0.4944	0.050	0.5	0	98.9	80-120	0			
Silver	0.4631	0.050	0.5	0	92.6	80-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1107429
 Project: DAF

QC BATCH REPORT

Batch ID: 54067 Instrument ID ICPMS05 Method: SW1311/6020

MS Sample ID: 1107449-10AMS Units: mg/L Analysis Date: 7/20/2011 03:52 PM

Client ID: Run ID: ICPMS05_110720A SeqNo: 2465723 Prep Date: 7/20/2011 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.5517	0.050	0.5	0.001107	110	75-125	0			
Barium	0.7676	0.050	0.5	0.2421	105	75-125	0			
Cadmium	0.5456	0.020	0.5	0.000364	109	75-125	0			
Chromium	0.5614	0.050	0.5	0.008646	111	75-125	0			
Lead	0.5487	0.050	0.5	0.009051	108	75-125	0			
Selenium	0.5564	0.050	0.5	0.01207	109	75-125	0			
Silver	0.5048	0.050	0.5	0	101	75-125	0			

MSD Sample ID: 1107449-10AMSD Units: mg/L Analysis Date: 7/20/2011 03:59 PM

Client ID: Run ID: ICPMS05_110720A SeqNo: 2465726 Prep Date: 7/20/2011 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.5125	0.050	0.5	0.001107	102	75-125	0.5517	7.36	25	
Barium	0.711	0.050	0.5	0.2421	93.8	75-125	0.7676	7.66	25	
Cadmium	0.5057	0.020	0.5	0.000364	101	75-125	0.5456	7.6	25	
Chromium	0.5147	0.050	0.5	0.008646	101	75-125	0.5614	8.68	25	
Lead	0.5038	0.050	0.5	0.009051	98.9	75-125	0.5487	8.54	25	
Selenium	0.5266	0.050	0.5	0.01207	103	75-125	0.5564	5.52	25	
Silver	0.462	0.050	0.5	0	92.4	75-125	0.5048	8.86	25	

DUP Sample ID: 1107449-10ADUP Units: mg/L Analysis Date: 7/20/2011 03:50 PM

Client ID: Run ID: ICPMS05_110720A SeqNo: 2465722 Prep Date: 7/20/2011 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050	0	0	0	0-0	0.001107	0	25	
Barium	0.2401	0.050	0	0	0	0-0	0.2421	0.81	25	
Cadmium	ND	0.020	0	0	0	0-0	0.000364	0	25	
Chromium	ND	0.050	0	0	0	0-0	0.008646	0	25	
Lead	0.008201	0.050	0	0	0	0-0	0.009051	0	25	J
Selenium	ND	0.050	0	0	0	0-0	0.01207	0	25	
Silver	ND	0.050	0	0	0	0-0	0	0	25	

The following samples were analyzed in this batch: 1107429-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1107429
 Project: DAF

QC BATCH REPORT

Batch ID: 54068 Instrument ID SV-3 Method: SW1311/8270

MBLK Sample ID: SBLKT1-110720-54068 Units: µg/L Analysis Date: 7/20/2011 04:45 PM

Client ID: Run ID SV-3_110720A SeqNo: 2466082 Prep Date: 7/20/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	ND	5.0								
2,4,6-Trichlorophenol	ND	5.0								
2,4-Dinitrotoluene	ND	5.0								
Cresols, Total	ND	15								
Hexachlorobenzene	ND	5.0								
Hexachlorobutadiene	ND	5.0								
Hexachloroethane	ND	5.0								
Nitrobenzene	ND	5.0								
Pentachlorophenol	ND	5.0								
Pyridine	ND	5.0								
Surr: 2,4,6-Tribromophenol	77.28	5.0	100	0	77.3	42-124	0			
Surr: 2-Fluorobiphenyl	73.48	5.0	100	0	73.5	48-120	0			
Surr: 2-Fluorophenol	61.68	5.0	100	0	61.7	20-120	0			
Surr: 4-Terphenyl-d14	67.68	5.0	100	0	67.7	51-135	0			
Surr: Nitrobenzene-d5	75.81	5.0	100	0	75.8	41-120	0			
Surr: Phenol-d6	61.31	5.0	100	0	61.3	20-120	0			

LCS Sample ID: SLCST1-110720-54068 Units: µg/L Analysis Date: 7/20/2011 05:08 PM

Client ID: Run ID: SV-3_110720A SeqNo: 2466084 Prep Date: 7/20/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	82.01	5.0	100	0	82	52-115	0			
2,4,6-Trichlorophenol	83.8	5.0	100	0	83.8	53-115	0			
2,4-Dinitrotoluene	44.96	5.0	50	0	89.9	56-115	0			
Cresols, Total	187.9	15	250	0	75.2	35-115	0			
Hexachlorobenzene	46.18	5.0	50	0	92.4	54-115	0			
Hexachlorobutadiene	46.84	5.0	50	0	93.7	51-115	0			
Hexachloroethane	38.6	5.0	50	0	77.2	54-115	0			
Nitrobenzene	44.26	5.0	50	0	88.5	40-124	0			
Pentachlorophenol	77.69	5.0	100	0	77.7	45-125	0			
Pyridine	30.77	5.0	50	0	61.5	34-115	0			
Surr: 2,4,6-Tribromophenol	76.3	5.0	100	0	76.3	42-124	0			
Surr: 2-Fluorobiphenyl	78.53	5.0	100	0	78.5	48-120	0			
Surr: 2-Fluorophenol	77.63	5.0	100	0	77.6	20-120	0			
Surr: 4-Terphenyl-d14	71.02	5.0	100	0	71	51-135	0			
Surr: Nitrobenzene-d5	77.2	5.0	100	0	77.2	41-120	0			
Surr: Phenol-d6	68.74	5.0	100	0	68.7	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1107429
 Project: DAF

QC BATCH REPORT

Batch ID: 54068 Instrument ID: SV-3 Method: SW1311/8270

LCSD Sample ID: SLCSDT1-110720-54068 Units: µg/L Analysis Date: 7/20/2011 05:31 PM

Client ID: Run ID: SV-3_110720A SeqNo: 2466086 Prep Date: 7/20/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	80.05	5.0	100	0	80.1	52-115	82.01	2.42	25	
2,4,6-Trichlorophenol	79.63	5.0	100	0	79.6	53-115	83.8	5.11	25	
2,4-Dinitrotoluene	44.13	5.0	50	0	88.3	56-115	44.96	1.86	25	
Cresols, Total	175	15	250	0	70	35-115	187.9	7.08	25	
Hexachlorobenzene	44.95	5.0	50	0	89.9	54-115	46.18	2.71	25	
Hexachlorobutadiene	44.32	5.0	50	0	88.6	51-115	46.84	5.53	25	
Hexachloroethane	37.96	5.0	50	0	75.9	54-115	38.6	1.67	25	
Nitrobenzene	42.01	5.0	50	0	84	40-124	44.26	5.2	25	
Pentachlorophenol	74.89	5.0	100	0	74.9	45-125	77.69	3.66	25	
Pyridine	30.65	5.0	50	0	61.3	34-115	30.77	0.393	25	
Surr: 2,4,6-Tribromophenol	72.14	5.0	100	0	72.1	42-124	76.3	5.61	25	
Surr: 2-Fluorobiphenyl	75.41	5.0	100	0	75.4	48-120	78.53	4.04	25	
Surr: 2-Fluorophenol	72.96	5.0	100	0	73	20-120	77.63	6.21	25	
Surr: 4-Terphenyl-d14	68.12	5.0	100	0	68.1	51-135	71.02	4.17	25	
Surr: Nitrobenzene-d5	73.52	5.0	100	0	73.5	41-120	77.2	4.88	25	
Surr: Phenol-d6	65.17	5.0	100	0	65.2	20-120	68.74	5.33	25	

The following samples were analyzed in this batch:

1107429-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1107429
 Project: DAF

QC BATCH REPORT

Batch ID **R113364** Instrument ID **VOA7** Method **SW1311/8260B**

MBLK Sample ID: **VLKW-072111-R113364** Units: **µg/L** Analysis Date: **7/21/2011 01:47 PM**

Client ID: Run ID: **VOA7_110721A** SeqNo: **2466924** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2-Butanone	ND	10								
Benzene	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroform	ND	5.0								
Tetrachloroethene	ND	5.0								
Trichloroethene	ND	5.0								
Vinyl chloride	ND	2.0								
Surr: 1,2-Dichloroethane-d4	45.15	5.0	50	0	90.3	70-125	0			
Surr: 4-Bromofluorobenzene	49.13	5.0	50	0	98.3	72.4-125	0			
Surr: Dibromofluoromethane	47.29	5.0	50	0	94.6	71.2-125	0			
Surr: Toluene-d8	48.52	5.0	50	0	97	75-125	0			

MBLK Sample ID: **MBLKV1-072011-R113364** Units: **µg/L** Analysis Date: **7/21/2011 02:38 PM**

Client ID: Run ID: **VOA7_110721A** SeqNo: **2466925** Prep Date: **7/21/2011** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	100								
1,2-Dichloroethane	ND	100								
1,4-Dichlorobenzene	ND	100								
2-Butanone	ND	200								
Benzene	ND	100								
Carbon tetrachloride	ND	100								
Chlorobenzene	ND	100								
Chloroform	ND	100								
Tetrachloroethene	ND	100								
Trichloroethene	ND	100								
Vinyl chloride	ND	40								
Surr: 1,2-Dichloroethane-d4	915.4	100	1000	0	91.5	70-125	0			
Surr: 4-Bromofluorobenzene	996.1	100	1000	0	99.6	72.4-125	0			
Surr: Dibromofluoromethane	938.1	100	1000	0	93.8	71.2-125	0			
Surr: Toluene-d8	972.5	100	1000	0	97.2	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1107429
 Project: DAF

QC BATCH REPORT

Batch ID: **R113364** Instrument ID **VOA7** Method: **SW1311/8260B**

MBLK Sample ID: **MBLKV1-071911-R113364** Units: **µg/L** Analysis Date: **7/21/2011 06:54 PM**

Client ID: Run ID: **VOA7_110721A** SeqNo: **2468474** Prep Date: **7/20/2011** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	100								
1,2-Dichloroethane	ND	100								
1,4-Dichlorobenzene	ND	100								
2-Butanone	ND	200								
Benzene	ND	100								
Carbon tetrachloride	ND	100								
Chlorobenzene	ND	100								
Chloroform	ND	100								
Tetrachloroethene	ND	100								
Trichloroethene	ND	100								
Vinyl chloride	ND	40								
Surr: 1,2-Dichloroethane-d4	909.4	100	1000	0	90.9	70-125	0			
Surr: 4-Bromofluorobenzene	975.8	100	1000	0	97.6	72.4-125	0			
Surr: Dibromofluoromethane	966.6	100	1000	0	96.7	71.2-125	0			
Surr: Toluene-d8	981	100	1000	0	98.1	75-125	0			

LCS Sample ID: **VLCSW-072111-R113364** Units: **µg/L** Analysis Date: **7/21/2011 12:56 PM**

Client ID: Run ID: **VOA7_110721A** SeqNo: **2466923** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	48.92	5.0	50	0	97.8	73-124	0			
1,2-Dichloroethane	48.4	5.0	50	0	96.8	76-120	0			
1,4-Dichlorobenzene	45.57	5.0	50	0	91.1	70-130	0			
2-Butanone	87.49	10	100	0	87.5	70-130	0			
Benzene	47.79	5.0	50	0	95.6	70-128	0			
Carbon tetrachloride	46.89	5.0	50	0	93.8	70-130	0			
Chlorobenzene	47.64	5.0	50	0	95.3	72-127	0			
Chloroform	43.97	5.0	50	0	87.9	70-130	0			
Tetrachloroethene	48.49	5.0	50	0	97	70-130	0			
Trichloroethene	48.02	5.0	50	0	96	72-129	0			
Vinyl chloride	48.06	2.0	50	0	96.1	70-130	0			
Surr: 1,2-Dichloroethane-d4	45.26	5.0	50	0	90.5	70-125	0			
Surr: 4-Bromofluorobenzene	49.34	5.0	50	0	98.7	72-125	0			
Surr: Dibromofluoromethane	48.17	5.0	50	0	96.3	71-125	0			
Surr: Toluene-d8	49.19	5.0	50	0	98.4	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation

Client: Navajo Refining Company
 Work Order: 1107429
 Project: DAF

QC BATCH REPORT

Batch ID: **R113364** Instrument ID **VOA7** Method: **SW1311/8260B**

MS		Sample ID: 1107582-01AMS				Units: µg/L		Analysis Date: 7/21/2011 03:29 PM		
Client ID:		Run ID: VOA7_110721A				SeqNo: 2466927		Prep Date:		DF: 20
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	925.5	100	1000	0	92.5	73-124	0			
1,2-Dichloroethane	1086	100	1000	0	109	76-120	0			
1,4-Dichlorobenzene	969.8	100	1000	0	97	70-130	0			
2-Butanone	1990	200	2000	0	99.5	70-130	0			
Benzene	1050	100	1000	0	105	70-128	0			
Carbon tetrachloride	882	100	1000	0	88.2	70-130	0			
Chlorobenzene	1035	100	1000	0	103	72-127	0			
Chloroform	1013	100	1000	0	101	70-130	0			
Tetrachloroethene	952.5	100	1000	0	95.2	70-130	0			
Trichloroethene	1025	100	1000	0	103	72-129	0			
Vinyl chloride	916.5	40	1000	0	91.6	70-130	0			
Surr: 1,2-Dichloroethane-d4	898.8	100	1000	0	89.9	70-125	0			
Surr: 4-Bromofluorobenzene	994.9	100	1000	0	99.5	72-125	0			
Surr: Dibromofluoromethane	943.8	100	1000	0	94.4	71-125	0			
Surr: Toluene-d8	985.9	100	1000	0	98.6	75-125	0			

MSD		Sample ID: 1107582-01AMSD				Units: µg/L		Analysis Date: 7/21/2011 03:54 PM		
Client ID:		Run ID: VOA7_110721A				SeqNo: 2466928		Prep Date:		DF: 20
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	915.1	100	1000	0	91.5	73-124	925.5	1.13	20	
1,2-Dichloroethane	1109	100	1000	0	111	76-120	1086	2.06	20	
1,4-Dichlorobenzene	990.2	100	1000	0	99	70-130	969.8	2.08	20	
2-Butanone	2045	200	2000	0	102	70-130	1990	2.72	20	
Benzene	1058	100	1000	0	106	70-128	1050	0.758	20	
Carbon tetrachloride	855.9	100	1000	0	85.6	70-130	882	3.01	20	
Chlorobenzene	1028	100	1000	0	103	72-127	1035	0.678	20	
Chloroform	990.5	100	1000	0	99	70-130	1013	2.22	20	
Tetrachloroethene	906.8	100	1000	0	90.7	70-130	952.5	4.91	20	
Trichloroethene	1014	100	1000	0	101	72-129	1025	1.09	20	
Vinyl chloride	876.8	40	1000	0	87.7	70-130	916.5	4.43	20	
Surr: 1,2-Dichloroethane-d4	900.8	100	1000	0	90.1	70-125	898.8	0.215	20	
Surr: 4-Bromofluorobenzene	977.7	100	1000	0	97.8	72-125	994.9	1.75	20	
Surr: Dibromofluoromethane	933.8	100	1000	0	93.4	71-125	943.8	1.07	20	
Surr: Toluene-d8	974.9	100	1000	0	97.5	75-125	985.9	1.12	20	

The following samples were analyzed in this batch:

1107429-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
Work Order: 1107429
Project: DAF

QC BATCH REPORT

Batch ID: **R113066** Instrument ID **WetChem** Method: **SW9045B**

LCS Sample ID: **WLCSS1-071711-R113066** Units: **pH Units** Analysis Date: **7/17/2011 04:15 PM**

Client ID: Run ID: **WETCHEM_110717E** SeqNo: **2460631** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6.01	0.10	6	0	100	90-110	0			

DUP Sample ID: **1107429-01ADUP** Units: **pH Units** Analysis Date: **7/17/2011 04:15 PM**

Client ID: **DAF** Run ID: **WETCHEM_110717E** SeqNo: **2460641** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.31	0.10	0	0	0	0-0	7.25	0.824	20	

The following samples were analyzed in this batch:

1107429-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
Work Order: 1107429
Project: DAF

QC BATCH REPORT

Batch ID: R113600 Instrument ID WetChem Method: SW1030

DUP Sample ID: 1107429-01ADUP Units: Burn Rate, mm/se Analysis Date: 7/26/2011 05:00 PM
Client ID: DAF Run ID: WETCHEM_110726H SeqNo: 2472486 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ignitability, Solid	ND	0	0	0	0		0	0		

The following samples were analyzed in this batch:

1107429-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Project: DAF
 WorkOrder: 1107429

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
Turn Rate, mm/sec	
mg/Kg	Milligrams per Kilogram
mg/L	Milligrams per Liter
pH Units	



ALS Laboratory Group
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

Chain of Custody Form

1107429

NAVAJO REFINING: Navajo Refining Company

Project: DAF

Page 1 of 1

ALS Project Manager:



Customer Information		Project Information	
Purchase Order		Project Name	DAF
Work Order		Project Number	
Company Name	Navajo Refining Co.	Bill To Company	Navajo Refining Co.
Send Report To	Aaron Strange	Invoice Attn	Aaron Strange
Address	P.O. Box 159	Address	501 E. MAIN
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88210
Phone	(575) 748-3311	Phone	(575) 748-3311
Fax	(575) 746-5451	Fax	(575) 746-5451
e-Mail Address		e-Mail Address	

Lo.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	DAF	7/13/11	0922	solid	NONE	1	✓	✓	✓	✓							
2	Trip Blank																
3	Temp Blank																
4																	
5																	
6																	
7																	
8																	
9																	
0																	

Sampler(s) Please Print & Sign Aaron Strange		Shipment Method Fed. Ex.		Required Turnaround Time: (Check Box) ☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour				Results Due Date:			
Relinquished by: Aaron Strange		Date: 7-13-11	Time: 1615	Received by: [Signature]		Notes:					
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler ID	Cooler Temp	QC Package: (Check One Box Below)			
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):				☐ Level II Std QC	☐ TRAP Checklist		
								☐ Level III Std QC/Raw Data	☐ TRAP Level IV		
								☐ Level IV SW846/CLP			
								☐ Other			

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

- Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
- Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.
- The Chain of Custody is a legal document. All information must be completed accurately.

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ALS Environmental

Sample Receipt Checklist

Client Name: **NAVAJO REFINING**

Date/Time Received **14-Jul-11 09:20**

Work Order: **1107429**

Received by: **RDH**

Checklist completed by Salvador D. Yanez 14-Jul-11
eSignature Date

Reviewed by: Chris Bryson 14-Jul-11
eSignature Date

Matrices: **Solid**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	

Temperature(s)/Thermometer(s): 2.7c 002

Cooler(s)/Kit(s): 3253

Water - VOA vials have zero headspace? Yes ☐ No ☐ No VOA vials submitted ☒

Water - pH acceptable upon receipt? Yes ☐ No ☐ N/A ☒

pH adjusted? Yes ☐ No ☐ N/A ☒

pH adjusted by:

Login Notes: Trip Blank Login w/ work order 1107419.

Client Contacted.

Date Contacted:

Person Contacted:

Contacted By.

Regarding:

Comments

CorrectiveAction:

1107429

ORIGIN ID: ROWA

NAVAJO ARTESIA
501 E MAIN

ARTESIA, NM 882109440
UNITED STATES US

SHIP DATE: 13JUL11
ACTWGT: 55.0 LB MAN
CAD: 634483/CAPE2472

BILL RECIPIENT

TO

ALS LABORATORY GROUP
10450 STANCLIFF RD., SUITE 210

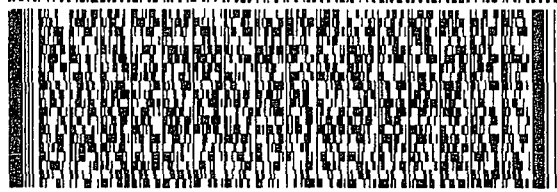
HOUSTON TX 77099

(281) 530-5656

REF.

PO:

DEPT:



FedEx
Express



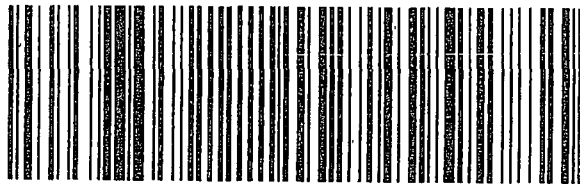
TRK# 4347 1019 4782
0201

THU - 14 JUL A2
PRIORITY OVERNIGHT

AB SGRA

77099
TX-US
IAH

Printed 15:14:04 PM 03/10/11



505C2/F556/DA47



ALS Environmental

10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

Date: 7/11
Name: Navajo Refining Co.
Company: N

CUSTODY SEAL

Date: 7/11 Time: 1530
Name: Navajo Refining Co.

Seal Broken By:

Date: 7/11

Client: ALS Environmental
Project: 1107429
Work Order: 1107355

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1107355-01	1107429-01B	Solid		7/13/2011 09:22	7/15/2011 09:30	☐

Client: ALS Environmental
Project: 1107429
WorkOrder: 1107355

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
TDL	Target Detection Limit

<u>Units Reported</u>	<u>Description</u>
mg/Kg	Milligrams per Kilogram

ALS Group USA, Corp

Date: 20-Jul-11

Client: ALS Environmental
Project: 1107429
Sample ID: 1107429-01B
Collection Date: 7/13/2011 09:22 AM

Work Order: 1107355
Lab ID: 1107355-01
Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
CYANIDE, REACTIVE			SW7.3.3.2			Analyst: NZ
Cyanide, Reactive	ND		40.0	mg/Kg	1	7/18/2011 02:00 PM
SULFIDE, REACTIVE			SW7.3.4.2			Analyst: NZ
Sulfide, Reactive	ND		40.0	mg/Kg	1	7/19/2011 02:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions

ALS Group USA, Corp

Date: 20-Jul-11

Client: ALS Environmental

Work Order: 1107355

Project: 1107429

QC BATCH REPORT

Batch ID: **R92349** Instrument ID **WETCHEM** Method: **SW7.3.4.2**

MBLK . Sample ID: **WBLKW1-110719-R92349** Units: **mg/Kg** Analysis Date: **7/19/2011 02:00 PM**

Client ID: Run ID: **WETCHEM_110719B** SeqNo: **1679794** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide, Reactive	ND	40								

The following samples were analyzed in this batch:

1107355-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ALS Environmental
 Work Order: 1107355
 Project: 1107429

QC BATCH REPORT

Batch ID: R92352 Instrument ID WETCHEM Method: SW7.3.3.2

MBLK Sample ID: WBLKW1-110718-R92352 Units: mg/Kg Analysis Date: 7/18/2011 02:00 PM

Client ID: Run ID: WETCHEM_110718I SeqNo: 1679869 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	ND	40								

LCS Sample ID: WLCSW1-110718-R92352 Units: mg/Kg Analysis Date: 7/18/2011 02:00 PM

Client ID: Run ID: WETCHEM_110718I SeqNo: 1679870 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	249.6	40	250	0	99.8	75-125	0			

LCSD Sample ID: WLCSDW1-110718-R92352 Units: mg/Kg Analysis Date: 7/18/2011 02:00 PM

Client ID: Run ID: WETCHEM_110718I SeqNo: 1679882 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	234.9	40	250	0	94	75-125	249.6	6.06	35	

MS Sample ID: 1107389-03A MS Units: mg/Kg Analysis Date: 7/18/2011 02:00 PM

Client ID: Run ID: WETCHEM_110718I SeqNo: 1679880 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	249.6	40	250	0	99.8	50-150	0			

MSD Sample ID: 1107389-03A MSD Units: mg/Kg Analysis Date: 7/18/2011 02:00 PM

Client ID: Run ID: WETCHEM_110718I SeqNo: 1679881 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	234.9	40	250	0	94	50-150	249.6	6.06	35	

The following samples were analyzed in this batch: 1107355-01A

1107355

**Subcontractor:**

ALS Laboratory Group
3352 128th Ave.
Holland, MI 49424

TEL: (616) 399-6070
FAX: (616) 399-6185
Acct #:

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Date: 14-Jul-11
COC ID: 10723
Due Date: 20-Jul-11

Customer Information		Project Information		Parameter/Method Request for Analysis											
Purchase Order	10-2121262	Project Name	1107429	A	Reactive Cyanide (SW-846)										
Work Order		Project Number		B	Reactive Sulfide (SW-846)										
Company Name	ALS Group USA, Corp.	Bill To Company	ALS Group USA, Corp.	C											
Send Report To	Chris Bryson	Inv Attn	Accounts Payable	D											
Address	10450 Stancliff Rd, Suite 210	Address	10450 Stancliff Rd, Suite 210	E											
				F											
City/State/Zip	Houston, Texas 77099-4338	City/State/Zip	Houston, Texas 77099-4338	G											
Phone	(281) 530-5656	Phone	(281) 530-5656	H											
Fax	(281) 530-5887	Fax	(281) 530-5887	I											
eMail Address	chris.bryson@alsglobal.com	eMail CC		J											
Sample ID	Matrix	Collection Date 24hr	Bottle	A	B	C	D	E	F	G	H	I	J		
1107429-01B (DAF)	Solid	13/Jul/2011 9:22	(1) 2OZGNEAT	X	X										

Comments:

Please analyze these samples for Reactive Sulfide & Reactive Cyanide CC:glenda.ramos@alsglobal.com & mary.knowles@alsglobal.com

Relinquished by:	Date/Time	Received by:	Date/Time	Cooler IDs	Report/QC Level
			7/15/11 0930		Std
Relinquished by:	Date/Time	Received by:	Date/Time		

322

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **ALS - HOUSTON**

Date/Time Received **15-Jul-11 09:30**

Work Order: **1107355**

Received by: **DS**

Checklist completed by Diane Shaw 15-Jul-11
eSignature Date

Reviewed by: Bill Carey 18-Jul-11
eSignature Date

Matrices: **Solid**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	<u>32 c</u>		
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by			
Login Notes			

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By

Regarding:

Comments:

Corrective Action:

Chavez, Carl J, EMNRD

From: Monzeglio, Hope, NMENV
Sent: Friday, May 13, 2011 8:38 AM
To: Moore, Darrell; Chavez, Carl J, EMNRD
Cc: Lackey, Johnny; Cobrain, Dave, NMENV
Subject: RE: Resampled DAF

Darrell

Thanks for the update.

Hope

From: Moore, Darrell [<mailto:Darrell.Moore@hollycorp.com>]
Sent: Friday, May 13, 2011 7:29 AM
To: Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD
Cc: Lackey, Johnny
Subject: Resampled DAF

Hope and Carl

Attached, please find the results for the DAF that we resampled after the recent excursion on cyanides. The resampled DAF shows no excursions for any parameter.
We will continue to manage the DAF waste stream as non-hazardous.

Darrell Moore
Environmental Manager for Water and Waste
Navajo Refining Company, LLC
Phone Number 575-746-5281
Cell Number 575-703-5058
Fax Number 575-746-5451

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12-May-2011

Aaron Strange
Navajo Refining Company
PO Box 159
Artesia, NM 88211

Tel: (575) 748-3311
Fax: (575) 746-5421

Re: DAF

Work Order: **1105260**

Dear Aaron,

ALS Environmental received 2 samples on 10-May-2011 08:50 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 28.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Electronically approved by: Glenda H. Ramos

JayLynn F Thibault
Project Manager



Certificate No: T104704231-09A-TX

ADDRESS 10450 Standiff Rd, Suite 210 Houston, Texas 77059-4338 | PHONE (281) 530-5656 | FAX (281) 530-5867

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ALS Environmental

Date: 12-May-11

Client: Navajo Refining Company
Project: DAF
Work Order: 1105260

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1105260-01	DAF	Soil		5/9/2011 13:35	5/10/2011 08:50	☐
1105260-02	Trip Blank	Water		5/9/2011	5/10/2011 08:50	☐

ALS Environmental

Date: 12-May-11

Client: Navajo Refining Company

Project: DAF

Work Order: 1105260

Sample ID: DAF

Lab ID: 1105260-01

Collection Date: 5/9/2011 01:35 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY			SW7470		Prep Date: 5/12/2011	Analyst: JCJ
Mercury	ND		0.000200	mg/L	1	5/12/2011 01:30 PM
TCLP METALS			SW1311/6020		Prep Date: 5/11/2011	Analyst: ALR
Arsenic	ND		0.0500	mg/L	10	5/12/2011 04:42 AM
Barium	0.847		0.0500	mg/L	10	5/12/2011 04:42 AM
Cadmium	ND		0.0500	mg/L	10	5/12/2011 04:42 AM
Chromium	ND		0.0500	mg/L	10	5/12/2011 04:42 AM
Lead	ND		0.0500	mg/L	10	5/12/2011 01:33 PM
Selenium	0.162		0.0500	mg/L	10	5/12/2011 04:42 AM
Silver	ND		0.0500	mg/L	10	5/12/2011 04:42 AM
TCLP SEMIVOLATILES			SW1311/8270		Prep Date: 5/11/2011	Analyst: ACN
2,4,5-Trichlorophenol	ND		5.0	µg/L	1	5/12/2011 03:33 PM
2,4,6-Trichlorophenol	ND		5.0	µg/L	1	5/12/2011 03:33 PM
2,4-Dinitrotoluene	ND		5.0	µg/L	1	5/12/2011 03:33 PM
Cresols, Total	ND		15	µg/L	1	5/12/2011 03:33 PM
Hexachlorobenzene	ND		5.0	µg/L	1	5/12/2011 03:33 PM
Hexachlorobutadiene	ND		5.0	µg/L	1	5/12/2011 03:33 PM
Hexachloroethane	ND		5.0	µg/L	1	5/12/2011 03:33 PM
Nitrobenzene	ND		5.0	µg/L	1	5/12/2011 03:33 PM
Pentachlorophenol	ND		5.0	µg/L	1	5/12/2011 03:33 PM
Pyridine	ND		5.0	µg/L	1	5/12/2011 03:33 PM
Surr: 2,4,6-Tribromophenol	70.0		42-124	%REC	1	5/12/2011 03:33 PM
Surr: 2-Fluorobiphenyl	57.0		48-120	%REC	1	5/12/2011 03:33 PM
Surr: 2-Fluorophenol	45.7		20-120	%REC	1	5/12/2011 03:33 PM
Surr: 4-Terphenyl-d14	67.5		51-135	%REC	1	5/12/2011 03:33 PM
Surr: Nitrobenzene-d5	53.4		41-120	%REC	1	5/12/2011 03:33 PM
Surr: Phenol-d6	55.5		20-120	%REC	1	5/12/2011 03:33 PM
TCLP VOLATILES			SW1311/8260B		Prep Date: 5/11/2011	Analyst: PC
1,1-Dichloroethene	ND		100	µg/L	20	5/12/2011 05:00 PM
1,2-Dichloroethane	ND		100	µg/L	20	5/12/2011 05:00 PM
1,4-Dichlorobenzene	ND		100	µg/L	20	5/12/2011 05:00 PM
2-Butanone	ND		200	µg/L	20	5/12/2011 05:00 PM
Benzene	ND		100	µg/L	20	5/12/2011 05:00 PM
Carbon tetrachloride	ND		100	µg/L	20	5/12/2011 05:00 PM
Chlorobenzene	ND		100	µg/L	20	5/12/2011 05:00 PM
Chloroform	ND		100	µg/L	20	5/12/2011 05:00 PM
Tetrachloroethene	ND		100	µg/L	20	5/12/2011 05:00 PM
Trichloroethene	ND		100	µg/L	20	5/12/2011 05:00 PM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 12-May-11

Client: Navajo Refining Company

Project: DAF

Work Order: 1105260

Sample ID: DAF

Lab ID: 1105260-01

Collection Date: 5/9/2011 01:35 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Vinyl chloride	ND		100	µg/L	20	5/12/2011 05:00 PM
Surr: 1,2-Dichloroethane-d4	100		70-125	%REC	20	5/12/2011 05:00 PM
Surr: 4-Bromofluorobenzene	99.9		72-125	%REC	20	5/12/2011 05:00 PM
Surr: Dibromofluoromethane	99.7		71-125	%REC	20	5/12/2011 05:00 PM
Surr: Toluene-d8	94.8		75-125	%REC	20	5/12/2011 05:00 PM
REACTIVE CYANIDE			SW-846			Analyst: HN
Reactive Cyanide	ND		40.0	mg/Kg	1	5/11/2011 02:40 PM
REACTIVE SULFIDE			SW-846			Analyst: HN
Reactive Sulfide	ND		40.0	mg/Kg	1	5/11/2011
IGNITABILITY			SW1030			Analyst: KAH
Ignitability, Solid	Negative			Burn Rate, mm/	1	5/12/2011 09:45 AM
PH			SW9045B			Analyst: DM
pH	6.92		0.100	pH Units	1	5/12/2011 12:00 PM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 12-May-11

Client: Navajo Refining Company

Work Order: 1105260

Project: DAF

QC BATCH REPORT

Batch ID: 52325 Instrument ID ICPMS03 Method: SW1311/6020

MBLK Sample ID: MBLKT1-051011-52325 Units: mg/L Analysis Date: 5/12/2011 01:25 AM

Client ID: Run ID: ICPMS03_110511A SeqNo: 2384358 Prep Date: 5/11/2011 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050								
Barium	0.00831	0.050								J
Cadmium	0.007321	0.050								J
Chromium	ND	0.050								
Lead	0.01201	0.050								J
Selenium	ND	0.050								
Silver	ND	0.050								

MBLK Sample ID: MBLKW1-051111-52325 Units: mg/L Analysis Date: 5/12/2011 01:30 AM

Client ID: Run ID: ICPMS03_110511A SeqNo: 2384359 Prep Date: 5/11/2011 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050								
Barium	ND	0.050								
Cadmium	0.006391	0.050								J
Chromium	ND	0.050								
Lead	0.011	0.050								J
Selenium	ND	0.050								
Silver	ND	0.050								

LCS Sample ID: MLCSW1-051111-52325 Units: mg/L Analysis Date: 5/12/2011 01:36 AM

Client ID: Run ID: ICPMS03_110511A SeqNo: 2384360 Prep Date: 5/11/2011 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.517	0.050	0.5	0	103	80-120	0			
Barium	0.521	0.050	0.5	0	104	80-120	0			
Cadmium	0.531	0.050	0.5	0	106	80-120	0			
Chromium	0.5469	0.050	0.5	0	109	80-120	0			
Lead	0.5103	0.050	0.5	0	102	80-120	0			
Selenium	0.5158	0.050	0.5	0	103	80-120	0			
Silver	0.5203	0.050	0.5	0	104	80-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1105260
 Project: DAF

QC BATCH REPORT

Batch ID: 52325 Instrument ID ICPMS03 Method: SW1311/6020

MS Sample ID: 1105245-01AMS Units: mg/L Analysis Date: 5/12/2011 01:58 AM

Client ID: Run ID: ICPMS03_110511A SeqNo: 2384364 Prep Date: 5/11/2011 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.5465	0.050	0.5	0.01204	107	75-125	0			
Barium	2.99	0.050	0.5	2.323	133	75-125	0			SO
Cadmium	0.5553	0.050	0.5	0.008839	109	75-125	0			
Chromium	0.5456	0.050	0.5	0.0004247	109	75-125	0			
Lead	0.6483	0.050	0.5	0.112	107	75-125	0			
Selenium	0.5249	0.050	0.5	0.01655	102	75-125	0			
Silver	0.5145	0.050	0.5	0.006147	102	75-125	0			

MSD Sample ID: 1105245-01AMSD Units: mg/L Analysis Date: 5/12/2011 02:03 AM

Client ID: Run ID: ICPMS03_110511A SeqNo: 2384365 Prep Date: 5/11/2011 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.5306	0.050	0.5	0.01204	104	75-125	0.5465	2.95	25	
Barium	2.952	0.050	0.5	2.323	126	75-125	2.99	1.28	25	SO
Cadmium	0.5272	0.050	0.5	0.008839	104	75-125	0.5553	5.19	25	
Chromium	0.5312	0.050	0.5	0.0004247	106	75-125	0.5456	2.67	25	
Lead	0.6118	0.050	0.5	0.112	100	75-125	0.6483	5.79	25	
Selenium	0.5307	0.050	0.5	0.01655	103	75-125	0.5249	1.1	25	
Silver	0.4909	0.050	0.5	0.006147	97	75-125	0.5145	4.69	25	

DUP Sample ID: 1105245-01ADUP Units: mg/L Analysis Date: 5/12/2011 01:47 AM

Client ID: Run ID: ICPMS03_110511A SeqNo: 2384362 Prep Date: 5/11/2011 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.009959	0.050	0	0	0	0-0	0.01204	0	25	J
Barium	2.338	0.050	0	0	0	0-0	2.323	0.644	25	
Cadmium	0.008691	0.050	0	0	0	0-0	0.008839	0	25	J
Chromium	ND	0.050	0	0	0	0-0	0.0004247	0	25	
Lead	0.1119	0.050	0	0	0	0-0	0.112	0.0893	25	
Selenium	ND	0.050	0	0	0	0-0	0.01655	0	25	
Silver	ND	0.050	0	0	0	0-0	0.006147	0	25	

The following samples were analyzed in this batch:

1105260-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1105260
 Project: DAF

QC BATCH REPORT

Batch ID: 52348 Instrument ID Mercury Method: SW7470

MBLK Sample ID: GBLKW1-051211-52348 Units: mg/L Analysis Date: 5/12/2011 01:05 PM

Client ID: Run ID: MERCURY_110512A SeqNo: 2385293 Prep Date: 5/12/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

MBLK Sample ID: GBLKT1-051111-52348 Units: mg/L Analysis Date: 5/12/2011 01:26 PM

Client ID: Run ID: MERCURY_110512A SeqNo: 2385301 Prep Date: 5/12/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020	0	0	0	0-0	0			

LCS Sample ID: GLCSW1-051211-52348 Units: mg/L Analysis Date: 5/12/2011 01:07 PM

Client ID: Run ID: MERCURY_110512A SeqNo: 2385294 Prep Date: 5/12/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00506	0.00020	0.005	0	101	80-120	0			

MS Sample ID: 1105212-15AMS Units: mg/L Analysis Date: 5/12/2011 01:16 PM

Client ID: Run ID: MERCURY_110512A SeqNo: 2385297 Prep Date: 5/12/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00501	0.00020	0.005	0	100	75-125	0			

MSD Sample ID: 1105212-15AMSD Units: mg/L Analysis Date: 5/12/2011 01:18 PM

Client ID: Run ID: MERCURY_110512A SeqNo: 2385298 Prep Date: 5/12/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00502	0.00020	0.005	0	100	75-125	0.00501	0.199	20	

DUP Sample ID: 1105212-15ADUP Units: mg/L Analysis Date: 5/12/2011 01:14 PM

Client ID: Run ID: MERCURY_110512A SeqNo: 2385296 Prep Date: 5/12/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020	0	0	0	0-0	0	0	20	

The following samples were analyzed in this batch:

1105260-01A

Client: Navajo Refining Company
 Work Order: 1105260
 Project: DAF

QC BATCH REPORT

Batch ID: 52337 Instrument ID SV-3 Method: SW1311/8270

MBLK Sample ID: SBLKT1-110511-52337 Units: µg/L Analysis Date: 5/12/2011 02:24 PM

Client ID: Run ID: SV-3_110512A SeqNo: 2385316 Prep Date: 5/11/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	ND	5.0								
2,4,6-Trichlorophenol	ND	5.0								
2,4-Dinitrotoluene	ND	5.0								
Cresols, Total	ND	15								
Hexachlorobenzene	ND	5.0								
Hexachlorobutadiene	ND	5.0								
Hexachloroethane	ND	5.0								
Nitrobenzene	ND	5.0								
Pentachlorophenol	ND	5.0								
Pyridine	ND	5.0								
Surr: 2,4,6-Tribromophenol	69.29	5.0	100	0	69.3	42-124	0			
Surr: 2-Fluorobiphenyl	72.79	5.0	100	0	72.8	48-120	0			
Surr: 2-Fluorophenol	65.79	5.0	100	0	65.8	20-120	0			
Surr: 4-Terphenyl-d14	76.64	5.0	100	0	76.6	51-135	0			
Surr: Nitrobenzene-d5	82.15	5.0	100	0	82.1	41-120	0			
Surr: Phenol-d6	71.3	5.0	100	0	71.3	20-120	0			

LCS Sample ID: SLCST1-110511-52337 Units: µg/L Analysis Date: 5/12/2011 02:47 PM

Client ID: Run ID: SV-3_110512A SeqNo: 2385317 Prep Date: 5/11/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	72.8	5.0	100	0	72.8	52-115	0			
2,4,6-Trichlorophenol	77.43	5.0	100	0	77.4	53-115	0			
2,4-Dinitrotoluene	41.85	5.0	50	0	83.7	56-115	0			
Cresols, Total	203.7	15	250	0	81.5	35-115	0			
Hexachlorobenzene	41.98	5.0	50	0	84	54-115	0			
Hexachlorobutadiene	38.26	5.0	50	0	76.5	51-115	0			
Hexachloroethane	40.35	5.0	50	0	80.7	54-115	0			
Nitrobenzene	41.75	5.0	50	0	83.5	40-124	0			
Pentachlorophenol	78.13	5.0	100	0	78.1	45-125	0			
Pyridine	33.69	5.0	50	0	67.4	34-115	0			
Surr: 2,4,6-Tribromophenol	68.36	5.0	100	0	68.4	42-124	0			
Surr: 2-Fluorobiphenyl	71.84	5.0	100	0	71.8	48-120	0			
Surr: 2-Fluorophenol	76.83	5.0	100	0	76.8	20-120	0			
Surr: 4-Terphenyl-d14	74.9	5.0	100	0	74.9	51-135	0			
Surr: Nitrobenzene-d5	79.05	5.0	100	0	79	41-120	0			
Surr: Phenol-d6	77.3	5.0	100	0	77.3	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1105260
 Project: DAF

QC BATCH REPORT

Batch ID: 52337 Instrument ID SV-3 Method: SW1311/8270

LCSD		Sample ID: SLCSDT1-110511-52337				Units: µg/L		Analysis Date: 5/12/2011 03:10 PM		
Client ID:		Run ID: SV-3_110512A				SeqNo: 2385318		Prep Date: 5/11/2011		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	73.52	5.0	100	0	73.5	52-115	72.8	0.983	25	
2,4,6-Trichlorophenol	76.86	5.0	100	0	76.9	53-115	77.43	0.74	25	
2,4-Dinitrotoluene	38	5.0	50	0	76	56-115	41.85	9.63	25	
Cresols, Total	205.5	15	250	0	82.2	35-115	203.7	0.904	25	
Hexachlorobenzene	44.64	5.0	50	0	89.3	54-115	41.98	6.16	25	
Hexachlorobutadiene	38.43	5.0	50	0	76.9	51-115	38.26	0.43	25	
Hexachloroethane	40.21	5.0	50	0	80.4	54-115	40.35	0.359	25	
Nitrobenzene	41.62	5.0	50	0	83.2	40-124	41.75	0.312	25	
Pentachlorophenol	77.68	5.0	100	0	77.7	45-125	78.13	0.581	25	
Pyridine	32.04	5.0	50	0	64.1	34-115	33.69	5.02	25	
Surr: 2,4,6-Tribromophenol	65.3	5.0	100	0	65.3	42-124	68.36	4.57	25	
Surr: 2-Fluorobiphenyl	72.22	5.0	100	0	72.2	48-120	71.84	0.534	25	
Surr: 2-Fluorophenol	75.63	5.0	100	0	75.6	20-120	76.83	1.58	25	
Surr: 4-Terphenyl-d14	75.47	5.0	100	0	75.5	51-135	74.9	0.758	25	
Surr: Nitrobenzene-d5	78.42	5.0	100	0	78.4	41-120	79.05	0.794	25	
Surr: Phenol-d6	78.34	5.0	100	0	78.3	20-120	77.3	1.33	25	

The following samples were analyzed in this batch:

1105260-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1105260
 Project: DAF

QC BATCH REPORT

Batch ID: R109797 Instrument ID VOA1 Method: SW1311/8260B

MBLK Sample ID: VBLKW-051211-R109797 Units: µg/L Analysis Date: 5/12/2011 12:20 PM

Client ID: Run ID: VOA1_110512B SeqNo: 2385552 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2-Butanone	ND	10								
Benzene	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroform	ND	5.0								
Tetrachloroethene	ND	5.0								
Trichloroethene	ND	5.0								
Vinyl chloride	ND	5.0								
Surr: 1,2-Dichloroethane-d4	51.35	5.0	50	0	103	70-125	0			
Surr: 4-Bromofluorobenzene	49.7	5.0	50	0	99.4	72.4-125	0			
Surr: Dibromofluoromethane	49.46	5.0	50	0	98.9	71.2-125	0			
Surr: Toluene-d8	49.38	5.0	50	0	98.8	75-125	0			

MBLK Sample ID: MBLKV1-051111-R109797 Units: µg/L Analysis Date: 5/12/2011 04:35 PM

Client ID: Run ID: VOA1_110512B SeqNo: 2385556 Prep Date: 5/12/2011 DF: 20

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	100								
1,2-Dichloroethane	ND	100								
1,4-Dichlorobenzene	ND	100								
2-Butanone	ND	200								
Benzene	ND	100								
Carbon tetrachloride	ND	100								
Chlorobenzene	ND	100								
Chloroform	ND	100								
Tetrachloroethene	ND	100								
Trichloroethene	ND	100								
Vinyl chloride	ND	100								
Surr: 1,2-Dichloroethane-d4	972.1	100	1000	0	97.2	70-125	0			
Surr: 4-Bromofluorobenzene	983.6	100	1000	0	98.4	72.4-125	0			
Surr: Dibromofluoromethane	954.3	100	1000	0	95.4	71.2-125	0			
Surr: Toluene-d8	978.8	100	1000	0	97.9	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1105260
 Project: DAF

QC BATCH REPORT

Batch ID: R109797 Instrument ID VOA1 Method: SW1311/8260B

LCS Sample ID: VLCSW-051211-R109797 Units: µg/L Analysis Date: 5/12/2011 11:03 AM

Client ID: Run ID: VOA1_110512B SeqNo: 2385551 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	49.23	5.0	50	0	98.5	73-124	0			
1,2-Dichloroethane	55.05	5.0	50	0	110	76-120	0			
1,4-Dichlorobenzene	48.97	5.0	50	0	97.9	70-130	0			
2-Butanone	104.7	10	100	0	105	70-130	0			
Benzene	43.61	5.0	50	0	87.2	70-128	0			
Carbon tetrachloride	52.97	5.0	50	0	106	70-130	0			
Chlorobenzene	48.4	5.0	50	0	96.8	72-127	0			
Chloroform	51.79	5.0	50	0	104	70-130	0			
Tetrachloroethene	55.62	5.0	50	0	111	70-130	0			
Trichloroethene	54.33	5.0	50	0	109	72-129	0			
Vinyl chloride	49.38	5.0	50	0	98.8	70-130	0			
Surr: 1,2-Dichloroethane-d4	53.51	5.0	50	0	107	70-125	0			
Surr: 4-Bromofluorobenzene	51.08	5.0	50	0	102	72-125	0			
Surr: Dibromofluoromethane	50.46	5.0	50	0	101	71-125	0			
Surr: Toluene-d8	50.44	5.0	50	0	101	75-125	0			

MS Sample ID: 1105083-02ZMS Units: µg/L Analysis Date: 5/12/2011 02:55 PM

Client ID: Run ID: VOA1_110512B SeqNo: 2385554 Prep Date: DF: 5

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	217.7	25	250	0	87.1	73-124	0			
1,2-Dichloroethane	284.8	25	250	0	114	76-120	0			
1,4-Dichlorobenzene	244.8	25	250	0	97.9	70-130	0			
2-Butanone	502	50	500	0	100	70-130	0			
Benzene	223.5	25	250	0	89.4	70-128	0			
Carbon tetrachloride	247.8	25	250	0	99.1	70-130	0			
Chlorobenzene	246.7	25	250	0	98.7	72-127	0			
Chloroform	253.8	25	250	0	102	70-130	0			
Tetrachloroethene	247.2	25	250	0	98.9	70-130	0			
Trichloroethene	266	25	250	0	106	72-129	0			
Vinyl chloride	226.6	25	250	0	90.6	70-130	0			
Surr: 1,2-Dichloroethane-d4	262	25	250	0	105	70-125	0			
Surr: 4-Bromofluorobenzene	249.3	25	250	0	99.7	72-125	0			
Surr: Dibromofluoromethane	248.4	25	250	0	99.4	71-125	0			
Surr: Toluene-d8	241.4	25	250	0	96.5	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1105260
 Project: DAF

QC BATCH REPORT

Batch ID: R109797 Instrument ID VOA1 Method: SW1311/8260B

MSD		Sample ID: 1105083-02ZMSD		Units: µg/L		Analysis Date: 5/12/2011 03:20 PM				
Client ID:		Run ID: VOA1_110512B		SeqNo: 2385555		Prep Date:		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	200	25	250	0	80	73-124	217.7	8.49	20	
1,2-Dichloroethane	277.9	25	250	0	111	76-120	284.8	2.43	20	
1,4-Dichlorobenzene	219.6	25	250	0	87.9	70-130	244.8	10.8	20	
2-Butanone	412.2	50	500	0	82.4	70-130	502	19.6	20	
Benzene	205.3	25	250	0	82.1	70-128	223.5	8.48	20	
Carbon tetrachloride	245	25	250	0	98	70-130	247.8	1.13	20	
Chlorobenzene	237.1	25	250	0	94.9	72-127	246.7	3.96	20	
Chloroform	227.6	25	250	0	91	70-130	253.8	10.9	20	
Tetrachloroethene	237.6	25	250	0	95	70-130	247.2	3.96	20	
Trichloroethene	251.3	25	250	0	101	72-129	266	5.69	20	
Vinyl chloride	207.2	25	250	0	82.9	70-130	226.6	8.93	20	
Surr: 1,2-Dichloroethane-d4	246.1	25	250	0	98.5	70-125	262	6.23	20	
Surr: 4-Bromofluorobenzene	251.1	25	250	0	100	72-125	249.3	0.747	20	
Surr: Dibromofluoromethane	232.1	25	250	0	92.8	71-125	248.4	6.81	20	
Surr: Toluene-d8	236.2	25	250	0	94.5	75-125	241.4	2.18	20	

The following samples were analyzed in this batch:

1105260-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
Work Order: 1105260
Project: DAF

QC BATCH REPORT

Batch ID: **R109756** Instrument ID **WetChem** Method: **SW1030**

DUP Sample ID: **1105260-01ADUP** Units: **Burn Rate, mm/se** Analysis Date: **5/12/2011 09:45 AM**
Client ID: **DAF** Run ID: **WETCHEM_110512A** SeqNo: **2384780** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ignitability, Solid	ND	0	0	0	0		0	0		

The following samples were analyzed in this batch:

1105260-01A

Client: Navajo Refining Company
Work Order: 1105260
Project: DAF

QC BATCH REPORT

Batch ID: **R109762** Instrument ID **WetChem** Method: **SW9045B**

LCS Sample ID: **WLCSS1-051211-R109762** Units: **pH Units** Analysis Date: **5/12/2011 12:00 PM**

Client ID: Run ID: **WETCHEM_110512D** SeqNo: **2384892** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6.04	0.10	6	0	101	90-110	0			

DUP Sample ID: **1105330-01BDUP** Units: **pH Units** Analysis Date: **5/12/2011 12:00 PM**

Client ID: Run ID: **WETCHEM_110512D** SeqNo: **2384913** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.59	0.10	0	0	0	0-0	8.53	0.701	20	

The following samples were analyzed in this batch:

1105260-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 12-May-11

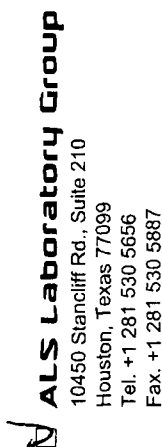
Client: Navajo Refining Company
Project: DAF
WorkOrder: 1105260

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
µg/L	Micrograms per Liter
urn Rate, mm/sec	
mg/Kg	Milligrams per Kilogram
mg/L	Milligrams per Liter
pH Units	



Chain of Custody Form

1105260

NAVAJO REFINING: Navajo Refining Company

Project: DAF

Page _____ of _____[illegible]

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.

2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.

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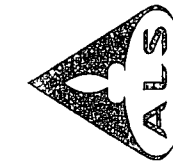
2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group

3. The Chain of Custody is a legal document. All information must be completed accurately.

1105266

	ALS Environmental	CL	
	10450 Stancliff Rd., Suite 210		Date: <u>5-9-11</u>
	Houston, Texas 77099		Name: <u>Harv</u>
	Tel. +1 281 530 5656		Company: <u>Nat</u>
	Fax. +1 281 530 5887		

JSTODY SEAL	Seal Broken By: <u>RVC</u>
Time: <u>1615</u>	Date: <u>5/10/11</u>
<u>u Stancliff</u>	
<u>aje Refractory Co.</u>	



ALS Laboratory Group
10450 Standliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

Chain of Custody Form

1105260

NAVAJO REFINING: Navajo Refining Company

Project DAF

Page 1 of 1



Customer Information				Project Information															
Purchase Order	Project Name	Project Number	Project Manager																
	Navajo Refining Co.		DAF																
Send Report To	Artesia NM 88210	Bill To Company																	
Address	501 E Main	Invoice Attn																	
City/State/Zip	575-748-3311	Address																	
Phone	575-746-5451	City/State/Zip																	
Fax		Phone																	
e-Mail Address		Fax																	
		e-Mail Address																	
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	DAF	5-9-11	1335	S	NO	1	X	X	X	X									
2	Trip Blank																		
3	Temp Blank																		
4																			
5																			
6																			
7																			
8																			
9																			
10																			
Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:													
Artesia NM 88210		FedEx		☒ 5 Wk Days ☐ 10 Wk Days ☐ 24 Hour		ASAP													
Relinquished by:		Received by:		Notes:															
Artesia NM 88210		5-9-11 1615		5-10-11 0315															
Relinquished by:		Time:		Time:															
Artesia NM 88210		Date:		Date:															
Logged by (Laboratory):		Time:		Time:															
Artesia NM 88210		Date:		Date:															
Preservative Key:		1-HCl		2-HNO ₃		3-H ₂ SO ₄		4-NaOH		5-Na ₂ S ₂ O ₃		6-NaHSO ₄		7-Other		8-4°C		9-5035	

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

11057160



ALS Environmental

10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

CL

Date: 5-9-11
Name: Anna
Company: Nat

JSTODY SEAL

Time: 1615
u Stancliff
Coje Refining Co

Seal Broken By:

R/C
Date: 5/10/11

Sample Receipt Checklist

Client Name: **NAVAJO REFINING**

Date/Time Received: **10-May-11 08:50**

Work Order: **1105260**

Received by: **RNG**

Checklist completed by Robert D. Harris
eSignature

10-May-11
Date

Reviewed by:

eSignature

Date

Matrices: soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	<u>2.4c</u>		<u>002</u>
Cooler(s)/Kit(s):	<u>3546</u>		
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:	<u></u>		
Login Notes:	<u>Trip blank not on COC; logged in without analysis.</u>		

Client Contacted: _____ Date Contacted: _____ Person Contacted: _____
Contacted By: _____ Regarding: _____

Comments:

CorrectiveAction:

ALS Group USA, Corp

Date: 12-May-11

Client: ALS Environmental

Project: 1105260

Work Order: 1105256

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1105256-01	1105260-01B	Soil		5/9/2011 13:35	5/11/2011 09:20	☐

Client: ALS Environmental
Project: 1105260
WorkOrder: 1105256

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
TDL	Target Detection Limit

<u>Units Reported</u>	<u>Description</u>
mg/Kg	Milligrams per Kilogram

ALS Group USA, Corp

Date: 12-May-11

Client: ALS Environmental

Project: 1105260

Work Order: 1105256

Sample ID: 1105260-01B

Lab ID: 1105256-01

Collection Date: 5/9/2011 01:35 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
CYANIDE, REACTIVE			SW7.3.3.2			Analyst: CV
Cyanide, Reactive	ND		40.0	mg/Kg	1	5/11/2011 02:40 PM
SULFIDE, REACTIVE			SW7.3.4.2			Analyst: CV
Sulfide, Reactive	ND		40.0	mg/Kg	1	5/11/2011

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 12-May-11

Client: ALS Environmental

Work Order: 1105256

Project: 1105260

QC BATCH REPORT

Batch ID: R89913 Instrument ID WETCHEM Method: SW7.3.3.2

MBLK Sample ID: WBLKW1-110510-R89913 Units: mg/Kg Analysis Date: 5/10/2011 02:00 PM

Client ID: Run ID: WETCHEM_110510K SeqNo: 1621898 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	ND	40								

LCS Sample ID: WLCBW1-110510-R89913 Units: mg/Kg Analysis Date: 5/10/2011 02:00 PM

Client ID: Run ID: WETCHEM_110510K SeqNo: 1621908 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	234.9	40	250	0	94	75-125	0			

LCSD Sample ID: WLCSDW1-110510-R89913 Units: mg/Kg Analysis Date: 5/10/2011 02:00 PM

Client ID: Run ID: WETCHEM_110510K SeqNo: 1621911 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	249.6	40	250	0	99.8	75-125	234.9	6.06	35	

MS Sample ID: 1105219-01A MS Units: mg/Kg Analysis Date: 5/10/2011 02:00 PM

Client ID: Run ID: WETCHEM_110510K SeqNo: 1621909 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	264.2	40	250	0	106	50-150	0			

MSD Sample ID: 1105219-01A MSD Units: mg/Kg Analysis Date: 5/10/2011 02:00 PM

Client ID: Run ID: WETCHEM_110510K SeqNo: 1621910 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	249.6	40	250	0	99.8	50-150	264.2	5.71	35	

The following samples were analyzed in this batch:

1105256-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ALS Environmental
Work Order: 1105256
Project: 1105260

QC BATCH REPORT

Batch ID: **R89914** Instrument ID **WETCHEM** Method: **SW7.3.4.2**

MBLK Sample ID: **WBLKW1-110510-R89914** Units: **mg/Kg** Analysis Date: **5/10/2011**
Client ID: Run ID: **WETCHEM_110510L** SeqNo: **1621912** Prep Date: DF: **1**

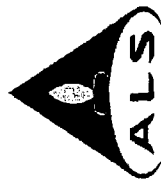
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide, Reactive	ND	40								

The following samples were analyzed in this batch:

1105256-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

1105256



Subcontractor:
ALS Laboratory Group
3352 128th Ave.
Holland, MI 49424

TEL: (616) 399-6070
FAX: (616) 399-6185
Acct #:

CHAIN-OF-CUSTODY RECORD

Date: 10-May-11
COC ID: 10427
Due Date: 12-May-11

Page 1 of 1

Customer Information		Project Information		Parameter/Method Request for Analysis																			
Purchase Order		Project Name	1105260	A		Reactive Cyanide (SW-846)																	
Work Order		Project Number		B		Reactive Sulfide (SW-846)																	
Company Name	ALS Group USA, Corp.	Bill To Company	ALS Group USA, Corp.	C																			
Send Report To	JayLynn F Thibault	Inv Attn	Accounts Payable	D																			
Address	10450 Stanciliff Rd, Suite 210	Address	10450 Stanciliff Rd, Suite 210	E																			
City/State/Zip	Houston, Texas 77099-4338	City/State/Zip	Houston, Texas 77099-4338	F																			
Phone	(281) 530-5656	Phone	(281) 530-5656	G																			
Fax	(281) 530-5887	Fax	(281) 530-5887	H																			
eMail Address	jaylynn.thibault@alsenviro.com	eMail CC	mary.knowles@alsglobal.com	I																			
Sample ID		Matrix	Collection Date 24hr	J																			
		Soil	9/May/2011 13:35	A		B		C		D		E		F		G		H		I		J	
1105260-01B (DAF)			(1) 40ZGNEAT	X		X																	

Comments:

Please analyze for Reactive Cyanide & Reactive Sulfide. RUSH!!! 48 HOUR TAT!!!!

Relinquished by:	Date/Time	Received by:	Date/Time
<i>[Signature]</i>	5/10/11	<i>[Signature]</i>	5/11/11 0920
Relinquished by:	Date/Time	Received by:	Date/Time

Report/QC Level
Std

Cooler IDs

76'c

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **ALS - HOUSTON**

Date/Time Received: **11-May-11 09:20**

Work Order: **1105256**

Received by: **DS**

Checklist completed by Diane Shaw
eSignature

11-May-11
Date

Reviewed by: Bill Carey
eSignature

11-May-11
Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	<u>2.6 c</u>		
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:			
Login Notes:			

Client Contacted:

Date Contacted:

Person Contacted:

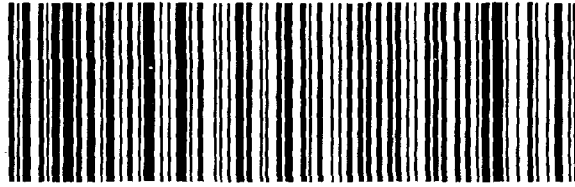
Contacted By:

Regarding:

Comments:

CorrectiveAction:

Part 8155748-03 AIRR V3172-09



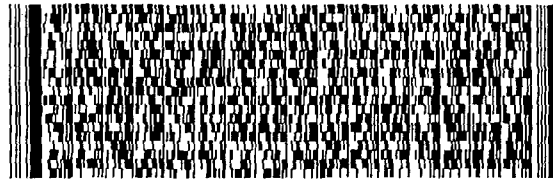
NI GRA

49424
MI-US
GRR

TRN# 4340 2164 8384
WED - 11 MAY A4
PRIORITY OVERNIGHT



FedEx
Express

[illegible]

REF: SUBCONTRACT

(281) 530-5656

HOLLAND MI 49424

TO LES ARNOLD
ALS ENVIRONMENTAL
3352 128TH AVE.

UNITED STATES US

66022 XI, NOISNOR
HOUSTON, TX 77099

10450 STANCLIFF
SUITE 210

SHIPPING DEPT
ALS LABORATORY GRO

ORIGIN ID: JG04 (2)

ORIGIN ID: JG04 (281) 530-5656

SHIP DATE: 10MAY11
ACTWGT: 12.3 LB
CAD: 300130/CAF22472

BILL SENDER

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Wednesday, May 04, 2011 4:10 PM
To: 'Moore, Darrell'; Monzeglio, Hope, NMENV
Subject: RE: DAF Analysis

Darrell:

OCD observes from the analytical data results that the DAF is characteristically hazardous for Reactivity (Cyanide).

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us

Website: <http://www.emnrd.state.nm.us/ocd/index.htm>

"Why not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward with the Rest of the Nation?" To see how, go to "Pollution Prevention & Waste Minimization" at:
<http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental>

From: Moore, Darrell [<mailto:Darrell.Moore@hollycorp.com>]
Sent: Wednesday, May 04, 2011 2:46 PM
To: Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD
Subject: DAF Analysis

Hope and Carl

Attached, please find the latest analysis for our DAF. We are testing this stream quarterly to insure that it is non-hazardous.

Darrell Moore
Environmental Manager for Water and Waste
Navajo Refining Company, LLC
Phone Number 575-746-5281
Cell Number 575-703-5058
Fax Number 575-746-5451

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Chavez, Carl J, EMNRD

From: Moore, Darrell [Darrell.Moore@hollycorp.com]
Sent: Wednesday, May 04, 2011 2:46 PM
To: Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD
Subject: DAF Analysis
Attachments: 1104674 DAF Final.pdf

Hope and Carl

Attached, please find the latest analysis for our DAF. We are testing this stream quarterly to insure that it is non-hazardous.

Darrell Moore
Environmental Manager for Water and Waste
Navajo Refining Company, LLC
Phone Number 575-746-5281
Cell Number 575-703-5058
Fax Number 575-746-5451

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29-Apr-2011

Aaron Strange
Navajo Refining Company
PO Box 159
Artesia, NM 88211

Tel: (575) 748-3311
Fax: (575) 746-5421

Re: DAF

Work Order: 1104674

Dear Aaron,

ALS Environmental received 1 sample on 20-Apr-2011 09:50 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 19.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Electronically approved by: Makenzie L. Henderson

JayLynn F Thibault
Project Manager



Certificate No: T104704231-09A-TX

Client: Navajo Refining Company
Project: DAF
Work Order: 1104674

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1104674-01	DAF	Soil		4/19/2011 13:38	4/20/2011 09:50	☐

ALS Environmental

Date: 29-Apr-11

Client: Navajo Refining Company

Project: DAF

Work Order: 1104674

Sample ID: DAF

Lab ID: 1104674-01

Collection Date: 4/19/2011 01:38 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY						
Mercury	ND		SW7470 0.000200	mg/L	Prep Date: 4/26/2011 1	Analyst: JCJ 4/26/2011 05:31 PM
TCLP METALS						
Arsenic	ND		SW1311/6020 0.0500	mg/L	Prep Date: 4/25/2011 10	Analyst: ALR 4/25/2011 08:43 PM
Barium	0.0536		0.0500	mg/L	10	4/25/2011 08:43 PM
Cadmium	ND		0.0500	mg/L	10	4/25/2011 08:43 PM
Chromium	ND		0.0500	mg/L	10	4/25/2011 08:43 PM
Lead	ND		0.0500	mg/L	10	4/25/2011 08:43 PM
Selenium	0.114		0.0500	mg/L	10	4/25/2011 08:43 PM
Silver	ND		0.0500	mg/L	10	4/25/2011 08:43 PM
TCLP SEMIVOLATILES						
2,4,5-Trichlorophenol	ND		SW1311/8270 5.0	µg/L	Prep Date: 4/26/2011 1	Analyst: ACN 4/27/2011 07:46 PM
2,4,6-Trichlorophenol	ND		5.0	µg/L	1	4/27/2011 07:46 PM
2,4-Dinitrotoluene	ND		5.0	µg/L	1	4/27/2011 07:46 PM
Cresols, Total	ND		15	µg/L	1	4/27/2011 07:46 PM
Hexachlorobenzene	ND		5.0	µg/L	1	4/27/2011 07:46 PM
Hexachlorobutadiene	ND		5.0	µg/L	1	4/27/2011 07:46 PM
Hexachloroethane	ND		5.0	µg/L	1	4/27/2011 07:46 PM
Nitrobenzene	ND		5.0	µg/L	1	4/27/2011 07:46 PM
Pentachlorophenol	ND		5.0	µg/L	1	4/27/2011 07:46 PM
Pyridine	ND		5.0	µg/L	1	4/27/2011 07:46 PM
Surr: 2,4,6-Tribromophenol	56.1		42-124	%REC	1	4/27/2011 07:46 PM
Surr: 2-Fluorobiphenyl	54.4		48-120	%REC	1	4/27/2011 07:46 PM
Surr: 2-Fluorophenol	53.8		20-120	%REC	1	4/27/2011 07:46 PM
Surr: 4-Terphenyl-d14	57.3		51-135	%REC	1	4/27/2011 07:46 PM
Surr: Nitrobenzene-d5	60.6		41-120	%REC	1	4/27/2011 07:46 PM
Surr: Phenol-d6	67.8		20-120	%REC	1	4/27/2011 07:46 PM
TCLP VOLATILES						
1,1-Dichloroethene	ND		SW1311/8260B 100	µg/L	Prep Date: 4/27/2011 20	Analyst: PC 4/28/2011 03:33 AM
1,2-Dichloroethane	ND		100	µg/L	20	4/28/2011 03:33 AM
1,4-Dichlorobenzene	ND		100	µg/L	20	4/28/2011 03:33 AM
2-Butanone	ND		200	µg/L	20	4/28/2011 03:33 AM
Benzene	ND		100	µg/L	20	4/28/2011 03:33 AM
Carbon tetrachloride	ND		100	µg/L	20	4/28/2011 03:33 AM
Chlorobenzene	ND		100	µg/L	20	4/28/2011 03:33 AM
Chloroform	ND		100	µg/L	20	4/28/2011 03:33 AM
Tetrachloroethene	ND		100	µg/L	20	4/28/2011 03:33 AM
Trichloroethene	ND		100	µg/L	20	4/28/2011 03:33 AM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 29-Apr-11

Client: Navajo Refining Company

Project: DAF

Work Order: 1104674

Sample ID: DAF

Lab ID: 1104674-01

Collection Date: 4/19/2011 01:38 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Vinyl chloride	ND		100	µg/L	20	4/28/2011 03:33 AM
Surr: 1,2-Dichloroethane-d4	96.9		70-125	%REC	20	4/28/2011 03:33 AM
Surr: 4-Bromofluorobenzene	96.9		72-125	%REC	20	4/28/2011 03:33 AM
Surr: Dibromofluoromethane	99.8		71-125	%REC	20	4/28/2011 03:33 AM
Surr: Toluene-d8	98.7		75-125	%REC	20	4/28/2011 03:33 AM
REACTIVE CYANIDE			SW-846			Analyst: HN
Reactive Cyanide	58.7		40.0	mg/Kg	1	4/25/2011 01:00 PM
REACTIVE SULFIDE			SW-846			Analyst: HN
Reactive Sulfide	ND		40.0	mg/Kg	1	4/25/2011 01:00 PM
IGNITABILITY			SW1030			Analyst: KAH
Ignitability, Solid	Negative			Burn Rate, mm/	1	4/27/2011
PH			SW9045B			Analyst: DM
pH	6.86		0.100	pH Units	1	4/27/2011 03:00 PM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 29-Apr-11

Client: Navajo Refining Company

Work Order: 1104674

Project: DAF

QC BATCH REPORT

Batch ID: 51830 Instrument ID ICP7500 Method: SW1311/6020

MBLK Sample ID: MBLKT1-042211-51830 Units: mg/L Analysis Date: 4/25/2011 06:22 PM

Client ID: Run ID: ICP7500_110425A SeqNo: 2360656 Prep Date: 4/25/2011 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050								
Barium	ND	0.050								
Cadmium	ND	0.050								
Chromium	ND	0.050								
Lead	0.005176	0.050								J
Selenium	ND	0.050								
Silver	ND	0.050								

MBLK Sample ID: MBLKT2-042211-51830 Units: mg/L Analysis Date: 4/25/2011 06:28 PM

Client ID: Run ID: ICP7500_110425A SeqNo: 2360657 Prep Date: 4/25/2011 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050								
Barium	ND	0.050								
Cadmium	ND	0.050								
Chromium	ND	0.050								
Lead	0.005301	0.050								J
Selenium	ND	0.050								
Silver	ND	0.050								

MBLK Sample ID: MBLKW1-042511-51830 Units: mg/L Analysis Date: 4/25/2011 06:33 PM

Client ID: Run ID: ICP7500_110425A SeqNo: 2360658 Prep Date: 4/25/2011 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050								
Barium	ND	0.050								
Cadmium	ND	0.050								
Chromium	ND	0.050								
Lead	0.005585	0.050								J
Selenium	ND	0.050								
Silver	ND	0.050								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1104674
 Project: DAF

QC BATCH REPORT

Batch ID: 51830 Instrument ID ICP7500 Method: SW1311/6020

LCS Sample ID: MLC5W1-042511-51830 Units: mg/L Analysis Date: 4/25/2011 07:28 PM

Client ID: Run ID: ICP7500_110425A SeqNo: 2360668 Prep Date: 4/25/2011 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.5291	0.050	0.5	0	106	80-120	0			
Barium	0.5313	0.050	0.5	0	106	80-120	0			
Cadmium	0.5435	0.050	0.5	0	109	80-120	0			
Chromium	0.5395	0.050	0.5	0	108	80-120	0			
Lead	0.5311	0.050	0.5	0	106	80-120	0			
Selenium	0.5351	0.050	0.5	0	107	80-120	0			
Silver	0.5159	0.050	0.5	0	103	80-120	0			

MS Sample ID: 1104726-01AMS Units: mg/L Analysis Date: 4/25/2011 07:12 PM

Client ID: Run ID: ICP7500_110425A SeqNo: 2360665 Prep Date: 4/25/2011 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.5252	0.050	0.5	0.005643	104	75-125	0			
Barium	1.418	0.050	0.5	0.8928	105	75-125	0			
Cadmium	0.5313	0.050	0.5	0.0009969	106	75-125	0			
Chromium	0.512	0.050	0.5	0.0001319	102	75-125	0			
Lead	0.5386	0.050	0.5	0.03336	101	75-125	0			
Selenium	0.5405	0.050	0.5	0.001417	108	75-125	0			
Silver	0.4553	0.050	0.5	-0.002313	91.5	75-125	0			

MSD Sample ID: 1104726-01AMSD Units: mg/L Analysis Date: 4/25/2011 07:17 PM

Client ID: Run ID: ICP7500_110425A SeqNo: 2360666 Prep Date: 4/25/2011 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.5351	0.050	0.5	0.005643	106	75-125	0.5252	1.87	25	
Barium	1.46	0.050	0.5	0.8928	113	75-125	1.418	2.92	25	
Cadmium	0.5477	0.050	0.5	0.0009969	109	75-125	0.5313	3.04	25	
Chromium	0.5223	0.050	0.5	0.0001319	104	75-125	0.512	1.99	25	
Lead	0.5531	0.050	0.5	0.03336	104	75-125	0.5386	2.66	25	
Selenium	0.5422	0.050	0.5	0.001417	108	75-125	0.5405	0.314	25	
Silver	0.4646	0.050	0.5	-0.002313	93.4	75-125	0.4553	2.02	25	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
Work Order: 1104674
Project: DAF

QC BATCH REPORT

Batch ID: **51830** Instrument ID **ICP7500** Method: **SW1311/6020**

DUP Sample ID: **1104726-01ADUP** Units: **mg/L** Analysis Date: **4/25/2011 07:01 PM**

Client ID: Run ID: **ICP7500_110425A** SeqNo: **2360663** Prep Date: **4/25/2011** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050	0	0	0	-0 0	0.005643	0	25	
Barium	0.8931	0.050	0	0	0	-0 0	0.8928	0.0336	25	
Cadmium	ND	0.050	0	0	0	-0 0	0.0009969	0	25	
Chromium	ND	0.050	0	0	0	-0 0	0.0001319	0	25	
Lead	0.03353	0.050	0	0	0	-0 0	0.03336	0	25	J
Selenium	ND	0.050	0	0	0	-0 0	0.001417	0	25	
Silver	ND	0.050	0	0	0	-0 0	-0.002313	0	25	

The following samples were analyzed in this batch:

1104674-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1104674
 Project: DAF

QC BATCH REPORT

Batch ID: 51856		Instrument ID Mercury				Method: SW7470				
MBLK		Sample ID: GBLKW2-042611-51856				Units: mg/L		Analysis Date: 4/26/2011 04:21 PM		
Client ID:		Run ID: MERCURY_110426A				SeqNo: 2362195		Prep Date: 4/26/2011		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								
MBLK		Sample ID: GBLKT1-042511-51856				Units: mg/L		Analysis Date: 4/26/2011 04:41 PM		
Client ID:		Run ID: MERCURY_110426A				SeqNo: 2362197		Prep Date: 4/26/2011		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								
LCS		Sample ID: GLCSW2-042611-51856				Units: mg/L		Analysis Date: 4/26/2011 04:23 PM		
Client ID:		Run ID: MERCURY_110426A				SeqNo: 2362196		Prep Date: 4/26/2011		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00492	0.00020	0.005	0	98.4	80-120	0			
MS		Sample ID: 1104709-01DMS				Units: mg/L		Analysis Date: 4/26/2011 04:47 PM		
Client ID:		Run ID: MERCURY_110426A				SeqNo: 2362200		Prep Date: 4/26/2011		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00508	0.00020	0.005	0.000024	101	75-125	0			
MSD		Sample ID: 1104709-01DMSD				Units: mg/L		Analysis Date: 4/26/2011 04:49 PM		
Client ID:		Run ID: MERCURY_110426A				SeqNo: 2362201		Prep Date: 4/26/2011		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00498	0.00020	0.005	0.000024	99.1	75-125	0.00508	1.99	20	
DUP		Sample ID: 1104709-01DDUP				Units: mg/L		Analysis Date: 4/26/2011 04:45 PM		
Client ID:		Run ID: MERCURY_110426A				SeqNo: 2362199		Prep Date: 4/26/2011		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020	0	0	0	-0.0	0.000024	0	20	

The following samples were analyzed in this batch:

1104674-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1104674
 Project: DAF

QC BATCH REPORT

Batch ID: 51886 Instrument ID SV-3 Method: SW1311/8270

MBLK Sample ID: SBLKT2-110426-51886 Units: µg/L Analysis Date: 4/27/2011 03:20 PM

Client ID: Run ID: SV-3_110427B SeqNo: 2365336 Prep Date: 4/26/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	ND	5.0								
2,4,6-Trichlorophenol	ND	5.0								
2,4-Dinitrotoluene	ND	5.0								
Cresols, Total	ND	15								
Hexachlorobenzene	ND	5.0								
Hexachlorobutadiene	ND	5.0								
Hexachloroethane	ND	5.0								
Nitrobenzene	ND	5.0								
Pentachlorophenol	ND	5.0								
Pyridine	ND	5.0								
Surr: 2,4,6-Tribromophenol	63.62	5.0	100	0	63.6	42-124	0			
Surr: 2-Fluorobiphenyl	61	5.0	100	0	61	48-120	0			
Surr: 2-Fluorophenol	51.66	5.0	100	0	51.7	20-120	0			
Surr: 4-Terphenyl-d14	67.06	5.0	100	0	67.1	51-135	0			
Surr: Nitrobenzene-d5	68.9	5.0	100	0	68.9	41-120	0			
Surr: Phenol-d6	67.45	5.0	100	0	67.5	20-120	0			

LCS Sample ID: SLCST2-110426-51886 Units: µg/L Analysis Date: 4/27/2011 01:50 PM

Client ID: Run ID: SV-3_110427B SeqNo: 2365335 Prep Date: 4/26/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	65.6	5.0	100	0	65.6	52-115	0			
2,4,6-Trichlorophenol	66.74	5.0	100	0	66.7	53-115	0			
2,4-Dinitrotoluene	39.25	5.0	50	0	78.5	56-115	0			
Cresols, Total	180.9	15	250	0	72.4	35-115	0			
Hexachlorobenzene	39.06	5.0	50	0	78.1	54-115	0			
Hexachlorobutadiene	35.95	5.0	50	0	71.9	51-115	0			
Hexachloroethane	33.75	5.0	50	0	67.5	54-115	0			
Nitrobenzene	39.11	5.0	50	0	78.2	40-124	0			
Pentachlorophenol	59.05	5.0	100	0	59.1	45-125	0			
Pyridine	30.36	5.0	50	0	60.7	34-115	0			
Surr: 2,4,6-Tribromophenol	65.03	5.0	100	0	65	42-124	0			
Surr: 2-Fluorobiphenyl	67.67	5.0	100	0	67.7	48-120	0			
Surr: 2-Fluorophenol	70.65	5.0	100	0	70.6	20-120	0			
Surr: 4-Terphenyl-d14	68.86	5.0	100	0	68.9	51-135	0			
Surr: Nitrobenzene-d5	73.1	5.0	100	0	73.1	41-120	0			
Surr: Phenol-d6	67.51	5.0	100	0	67.5	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1104674
 Project: DAF

QC BATCH REPORT

Batch ID: 51886 Instrument ID SV-3 Method: SW1311/8270

LCSD Sample ID: SLCSDT2-110426-51886 Units: µg/L Analysis Date: 4/27/2011 04:52 PM

Client ID: Run ID: SV-3_110427B SeqNo: 2365337 Prep Date: 4/26/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	70.7	5.0	100	0	70.7	52-115	65.6	7.49	25	
2,4,6-Trichlorophenol	66.87	5.0	100	0	66.9	53-115	66.74	0.196	25	
2,4-Dinitrotoluene	39.95	5.0	50	0	79.9	56-115	39.25	1.77	25	
Cresols, Total	201.1	15	250	0	80.4	35-115	180.9	10.6	25	
Hexachlorobenzene	38.53	5.0	50	0	77.1	54-115	39.06	1.35	25	
Hexachlorobutadiene	34.78	5.0	50	0	69.6	51-115	35.95	3.3	25	
Hexachloroethane	34.14	5.0	50	0	68.3	54-115	33.75	1.14	25	
Nitrobenzene	38.36	5.0	50	0	76.7	40-124	39.11	1.93	25	
Pentachlorophenol	59.21	5.0	100	0	59.2	45-125	59.05	0.263	25	
Pyridine	27.32	5.0	50	0	54.6	34-115	30.36	10.5	25	
Surr: 2,4,6-Tribromophenol	65.45	5.0	100	0	65.5	42-124	65.03	0.645	25	
Surr: 2-Fluorobiphenyl	66.63	5.0	100	0	66.6	48-120	67.67	1.54	25	
Surr: 2-Fluorophenol	74.34	5.0	100	0	74.3	20-120	70.65	5.09	25	
Surr: 4-Terphenyl-d14	70.45	5.0	100	0	70.5	51-135	68.86	2.29	25	
Surr: Nitrobenzene-d5	71.72	5.0	100	0	71.7	41-120	73.1	1.92	25	
Surr: Phenol-d6	78.28	5.0	100	0	78.3	20-120	67.51	14.8	25	

The following samples were analyzed in this batch:

1104674-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1104674
 Project: DAF

QC BATCH REPORT

Batch ID: R109017 Instrument ID VOA2 Method: SW1311/8260B

MBLK	Sample ID: VBLKW-042711-R109017				Units: µg/L		Analysis Date: 4/27/2011 07:34 PM			
Client ID:	Run ID: VOA2_110427B				SeqNo: 2366186		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2-Butanone	ND	10								
Benzene	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroform	ND	5.0								
Tetrachloroethene	ND	5.0								
Trichloroethene	ND	5.0								
Vinyl chloride	ND	5.0								
Surr: 1,2-Dichloroethane-d4	49.09	5.0	50	0	98.2	70-125	0			
Surr: 4-Bromofluorobenzene	47.83	5.0	50	0	95.7	72.4-125	0			
Surr: Dibromofluoromethane	49.34	5.0	50	0	98.7	71.2-125	0			
Surr: Toluene-d8	49.05	5.0	50	0	98.1	75-125	0			

MBLK	Sample ID: MBLKV1-042611-R109017				Units: µg/L		Analysis Date: 4/27/2011 10:45 PM			
Client ID:	Run ID: VOA2_110427B				SeqNo: 2366191		Prep Date: 4/27/2011		DF: 20	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	100								
1,2-Dichloroethane	ND	100								
1,4-Dichlorobenzene	ND	100								
2-Butanone	ND	200								
Benzene	ND	100								
Carbon tetrachloride	ND	100								
Chlorobenzene	ND	100								
Chloroform	ND	100								
Tetrachloroethene	ND	100								
Trichloroethene	ND	100								
Vinyl chloride	ND	100								
Surr: 1,2-Dichloroethane-d4	964.7	100	1000	0	96.5	70-125	0			
Surr: 4-Bromofluorobenzene	969.5	100	1000	0	96.9	72.4-125	0			
Surr: Dibromofluoromethane	964.1	100	1000	0	96.4	71.2-125	0			
Surr: Toluene-d8	1022	100	1000	0	102	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1104674
 Project: DAF

QC BATCH REPORT

Batch ID: R109017 Instrument ID VOA2 Method: SW1311/8260B

LCS		Sample ID: VLCSW-042711-R109017				Units: µg/L		Analysis Date: 4/27/2011 06:21 PM		
Client ID:		Run ID: VOA2_110427B				SeqNo: 2366185		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	49.58	5.0	50	0	99.2	73-124	0			
1,2-Dichloroethane	53.31	5.0	50	0	107	76-120	0			
1,4-Dichlorobenzene	52.94	5.0	50	0	106	70-130	0			
2-Butanone	107.6	10	100	0	108	70-130	0			
Benzene	52.18	5.0	50	0	104	70-128	0			
Carbon tetrachloride	49.53	5.0	50	0	99.1	70-130	0			
Chlorobenzene	52.34	5.0	50	0	105	72-127	0			
Chloroform	51.54	5.0	50	0	103	70-130	0			
Tetrachloroethene	50.25	5.0	50	0	100	70-130	0			
Trichloroethene	51.57	5.0	50	0	103	72-129	0			
Vinyl chloride	50.94	5.0	50	0	102	70-130	0			
Surr: 1,2-Dichloroethane-d4	48.87	5.0	50	0	97.7	70-125	0			
Surr: 4-Bromofluorobenzene	49.83	5.0	50	0	99.7	72-125	0			
Surr: Dibromofluoromethane	49.6	5.0	50	0	99.2	71-125	0			
Surr: Toluene-d8	49.99	5.0	50	0	100	75-125	0			

MS		Sample ID: 1104748-04ZMS				Units: µg/L		Analysis Date: 4/27/2011 09:33 PM		
Client ID:		Run ID: VOA2_110427B				SeqNo: 2366189		Prep Date:		DF: 200
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	9258	1,000	10000	0	92.6	73-124	0			
1,2-Dichloroethane	9799	1,000	10000	0	98	76-120	0			
1,4-Dichlorobenzene	9268	1,000	10000	0	92.7	70-130	0			
2-Butanone	17790	2,000	20000	0	89	70-130	0			
Benzene	13670	1,000	10000	4008	96.7	70-128	0			
Carbon tetrachloride	9636	1,000	10000	0	96.4	70-130	0			
Chlorobenzene	9604	1,000	10000	0	96	72-127	0			
Chloroform	9473	1,000	10000	0	94.7	70-130	0			
Tetrachloroethene	9035	1,000	10000	0	90.4	70-130	0			
Trichloroethene	9402	1,000	10000	0	94	72-129	0			
Vinyl chloride	9463	1,000	10000	0	94.6	70-130	0			
Surr: 1,2-Dichloroethane-d4	9825	1,000	10000	0	98.2	70-125	0			
Surr: 4-Bromofluorobenzene	9970	1,000	10000	0	99.7	72-125	0			
Surr: Dibromofluoromethane	10100	1,000	10000	0	101	71-125	0			
Surr: Toluene-d8	10090	1,000	10000	0	101	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1104674
 Project: DAF

QC BATCH REPORT

Batch ID: **R109017** Instrument ID **VOA2** Method: **SW1311/8260B**

MSD		Sample ID: 1104748-04ZMSD			Units: µg/L		Analysis Date: 4/27/2011 09:57 PM			
Client ID:		Run ID: VOA2_110427B			SeqNo: 2366190		Prep Date:		DF: 200	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	9403	1,000	10000	0	94	73-124	9258	1.56	20	
1,2-Dichloroethane	10440	1,000	10000	0	104	76-120	9799	6.34	20	
1,4-Dichlorobenzene	9789	1,000	10000	0	97.9	70-130	9268	5.47	20	
2-Butanone	18580	2,000	20000	0	92.9	70-130	17790	4.29	20	
Benzene	14290	1,000	10000	4008	103	70-128	13670	4.41	20	
Carbon tetrachloride	9596	1,000	10000	0	96	70-130	9636	0.418	20	
Chlorobenzene	10120	1,000	10000	0	101	72-127	9604	5.2	20	
Chloroform	10020	1,000	10000	0	100	70-130	9473	5.63	20	
Tetrachloroethene	9014	1,000	10000	0	90.1	70-130	9035	0.233	20	
Trichloroethene	9768	1,000	10000	0	97.7	72-129	9402	3.82	20	
Vinyl chloride	9501	1,000	10000	0	95	70-130	9463	0.406	20	
Surr: 1,2-Dichloroethane-d4	9669	1,000	10000	0	96.7	70-125	9825	1.6	20	
Surr: 4-Bromofluorobenzene	9964	1,000	10000	0	99.6	72-125	9970	0.0564	20	
Surr: Dibromofluoromethane	10030	1,000	10000	0	100	71-125	10100	0.704	20	
Surr: Toluene-d8	10010	1,000	10000	0	100	75-125	10090	0.788	20	

The following samples were analyzed in this batch:

1104674-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
Work Order: 1104674
Project: DAF

QC BATCH REPORT

Batch ID: **R108941** Instrument ID **WetChem** Method: **SW9045B**

LCS Sample ID: **WLCSS1-042711-R108941** Units: **pH Units** Analysis Date: **4/27/2011 03:00 PM**

Client ID: Run ID: **WETCHEM_110427E** SeqNo: **2364200** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6.05	0.10	6	0	101	90-110	0			

DUP Sample ID: **1104676-03ADUP** Units: **pH Units** Analysis Date: **4/27/2011 03:00 PM**

Client ID: Run ID: **WETCHEM_110427E** SeqNo: **2364209** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.14	0.10	0	0	0	-0 0	8.16	0.245	20	

The following samples were analyzed in this batch:

1104674-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
Work Order: 1104674
Project: DAF

QC BATCH REPORT

Batch ID: **R108993** Instrument ID **WetChem** Method: **SW1030**

DUP Sample ID: **1104676-03DUP** Units: **Burn Rate, mm/se** Analysis Date: **4/27/2011**

Client ID: Run ID: **WETCHEM_110427I** SeqNo: **2365616** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ignitability, Solid	ND	0	0	0	0		0	0		

The following samples were analyzed in this batch:

1104674-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

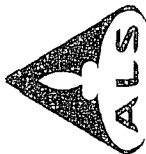
Client: Navajo Refining Company
Project: DAF
WorkOrder: 1104674

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
µg/L	Micrograms per Liter
Turn Rate, mm/sec	
mg/Kg	Milligrams per Kilogram
mg/L	Milligrams per Liter
pH Units	



ALS Environmental
10450 Stancil Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

Chain of Custody Form

Page 1 of 1

COC ID: 34382

ALS Project Manager:

1104674
NAVAJO REFINING: Navajo Refining Company

Project: DAF



Customer Information				Project Information													
Purchase Order		Project Name	ABE Refining DAF	A	TKR (550)	TCLP	VARS										
Work Order		Project Number		B	800	TCLP	Semi VARS										
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	COB (410-4)	TCLP	Metals										
Send Report To	Aaron Strange	Invoice Attn	Aaron Strange	D	Phenolics (420)	RCI											
Address	501 E. Main	Address	501 E. Main	E													
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	F													
Phone	(505) 748-3311	Phone	(505) 748-3311	G													
Fax	(505) 746-5451	Fax	(505) 746-5451	H													
e-Mail Address		e-Mail Address		I													
				J													
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	DAF	4-19-11	1338	S	NO	1	X	X	X								
2	Trip Blank																
3	Temp Blank																
4																	
5																	
6																	
7																	
8																	
9																	
0																	

Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
400005 Strange	FedEx	☒ Std 10 WK Days	☐ 5 WK Days	☐ 24 Hour	
Received by:	Time:	Notes: 10 Day TAT.			
Received by:	Time:				
Checked by (Laboratory):	Time:				
reservative Key:	1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035				

QC Package: (Check One Box Below)	
☒ Level II Std QC	☐ TRRP CheckList
☐ Level III Std QC/RAW Data	☐ TRRP Level IV
☐ Level IV SW846/CLP	☐ Other / EDO

1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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ALS Environmental

Sample Receipt Checklist

Client Name: **NAVAJO REFINING**

Date/Time Received: **20-Apr-11 09:50**

Work Order: **1104674**

Received by: **RDN**

Checklist completed by Robert D. Harris
eSignature

21-Apr-11
Date

Reviewed by: Arctur Coronado
eSignature

25-Apr-11
Date

Matrices: soils

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	<u>5.1c</u> <u>002</u>		
Cooler(s)/Kit(s):	<u>2534</u>		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:	<u>-</u>		
Login Notes:			

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

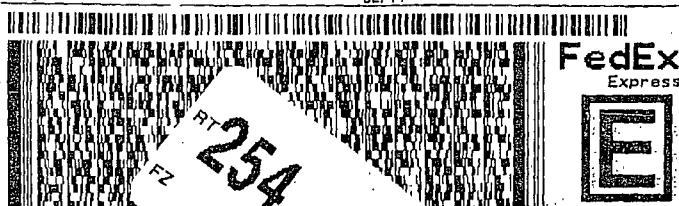
CorrectiveAction:

110416261

ALS Environmental 10450 Stancliff Rd., Suite 210. Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL Date: 4-19-11 Time: 1615 Name: AARON G. FARRAR Company: NAVAJO RESERVATION 4/29/11
---	--

ORIGIN ID: ROWA
NAVAJO ARTESIA
501 E MAIN
ARTESIA, NM 882109440
UNITED STATES US
BILL RECIPIENT
ACTWGT: 47.0 LB. MHN
CAD: 634483/CAFE2A72

TO
ALS LABORATORY GROUP
10450 STANCLIFF RD., SUITE 210
HOUSTON TX 77099
(281) 530-5656
INV: REF: DEPT:



TRK# 4347 1019 2481
0201

AB SGRA

20 APR A2
CITY OVERNIGHT

77099
TX-US
IAH



Part # 156148-434 RIT2 05/10

505C3/26A8/DA47

Chavez, Carl J, EMNRD

From: Moore, Darrell [Darrell.Moore@hollycorp.com]
Sent: Tuesday, January 25, 2011 7:08 AM
To: Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD
Subject: DAF Analysis
Attachments: 1101215 DAF Final.pdf

Hope and Carl,

Attached, please find our Quarterly DAF analysis that Navajo is required to submit to both NMED and OCD. The sample was taken on January 6, 2011 and shows the DAF to be non-hazardous. If there are any questions, please contact me at 575-746-5281.

Darrell Moore
Environmental Manager for Water and Waste
Navajo Refining Company, LLC
Phone Number 575-746-5281
Cell Number 575-703-5058
Fax Number 575-746-5451

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20-Jan-2011

Aaron Strange
Navajo Refining Company
PO Box 159
Artesia, NM 88211

Tel: (575) 748-3311
Fax: (575) 746-5421

Re: DAF

Work Order: 1101215

Dear Aaron,

ALS Environmental received 1 sample on 08-Jan-2011 09:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 27.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Electronically approved by: Glenda H. Ramos

JayLynn F Thibault
Project Manager



Certificate No: T104704231-09A-TX

ADDRESS 10450 Standliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5856 | FAX (281) 530-5887

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RIGHT SOLUTIONS RIGHT PART EVERY

ALS Environmental

Date: 20-Jan-11

Client: Navajo Refining Company
Project: DAF
Work Order: 1101215

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1101215-01	DAF	Soil		1/6/2011 10:00	1/8/2011 09:00	☐

ALS Environmental

Date: 20-Jan-11

Client: Navajo Refining Company

Project: DAF

Work Order: 1101215

Sample ID: DAF

Lab ID: 1101215-01

Collection Date: 1/6/2011 10:00 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY						
Mercury	ND		SW7470 0.000200	mg/L	Prep Date: 1/18/2011 1	Analyst: JCJ 1/18/2011 03:14 PM
TCLP METALS						
Arsenic	ND		SW1311/6020 0.0500	mg/L	Prep Date: 1/11/2011 10	Analyst: IGF 1/11/2011 07:13 PM
Barium	0.244		0.0500	mg/L	10	1/11/2011 07:13 PM
Cadmium	ND		0.0500	mg/L	10	1/11/2011 07:13 PM
Chromium	ND		0.0500	mg/L	10	1/11/2011 07:13 PM
Lead	ND		0.0500	mg/L	10	1/11/2011 07:13 PM
Selenium	0.0988		0.0500	mg/L	10	1/11/2011 07:13 PM
Silver	ND		0.0500	mg/L	10	1/11/2011 07:13 PM
TCLP SEMIVOLATILES						
2,4,5-Trichlorophenol	ND		SW1311/8270 5.0	µg/L	Prep Date: 1/11/2011 1	Analyst: ACN 1/12/2011 12:20 AM
2,4,6-Trichlorophenol	ND		5.0	µg/L	1	1/12/2011 12:20 AM
2,4-Dinitrotoluene	ND		5.0	µg/L	1	1/12/2011 12:20 AM
Cresols, Total	ND		15	µg/L	1	1/12/2011 12:20 AM
Hexachlorobenzene	ND		5.0	µg/L	1	1/12/2011 12:20 AM
Hexachlorobutadiene	ND		5.0	µg/L	1	1/12/2011 12:20 AM
Hexachloroethane	ND		5.0	µg/L	1	1/12/2011 12:20 AM
Nitrobenzene	ND		5.0	µg/L	1	1/12/2011 12:20 AM
Pentachlorophenol	ND		5.0	µg/L	1	1/12/2011 12:20 AM
Pyridine	ND		5.0	µg/L	1	1/12/2011 12:20 AM
Surr: 2,4,6-Tribromophenol	73.2		42-124	%REC	1	1/12/2011 12:20 AM
Surr: 2-Fluorobiphenyl	54.5		48-120	%REC	1	1/12/2011 12:20 AM
Surr: 2-Fluorophenol	46.0		20-120	%REC	1	1/12/2011 12:20 AM
Surr: 4-Terphenyl-d14	68.0		51-135	%REC	1	1/12/2011 12:20 AM
Surr: Nitrobenzene-d5	53.1		41-120	%REC	1	1/12/2011 12:20 AM
Surr: Phenol-d6	55.7		20-120	%REC	1	1/12/2011 12:20 AM
TCLP VOLATILES						
1,1-Dichloroethene	ND		SW1311/8260B 250	µg/L	Prep Date: 1/11/2011 50	Analyst: PC 1/13/2011 07:30 PM
1,2-Dichloroethane	ND		250	µg/L	50	1/13/2011 07:30 PM
1,4-Dichlorobenzene	ND		250	µg/L	50	1/13/2011 07:30 PM
2-Butanone	ND		500	µg/L	50	1/13/2011 07:30 PM
Benzene	ND		250	µg/L	50	1/13/2011 07:30 PM
Carbon tetrachloride	ND		250	µg/L	50	1/13/2011 07:30 PM
Chlorobenzene	ND		250	µg/L	50	1/13/2011 07:30 PM
Chloroform	ND		250	µg/L	50	1/13/2011 07:30 PM
Tetrachloroethene	ND		250	µg/L	50	1/13/2011 07:30 PM
Trichloroethene	ND		250	µg/L	50	1/13/2011 07:30 PM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 20-Jan-11

Client: Navajo Refining Company
 Project: DAF
 Sample ID: DAF
 Collection Date: 1/6/2011 10:00 AM

Work Order: 1101215
 Lab ID: 1101215-01
 Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Vinyl chloride	ND		250	µg/L	50	1/13/2011 07:30 PM
Surr: 1,2-Dichloroethane-d4	106		70-125	%REC	50	1/13/2011 07:30 PM
Surr: 4-Bromofluorobenzene	96.1		72-125	%REC	50	1/13/2011 07:30 PM
Surr: Dibromofluoromethane	105		71-125	%REC	50	1/13/2011 07:30 PM
Surr: Toluene-d8	99.6		75-125	%REC	50	1/13/2011 07:30 PM
REACTIVE CYANIDE			SW-846			Analyst: HN
Reactive Cyanide	ND		40.0	mg/Kg	1	1/18/2011 09:00 AM
REACTIVE SULFIDE			SW-846			Analyst: HN
Reactive Sulfide	ND		40.0	mg/Kg	1	1/18/2011 09:00 AM
IGNITABILITY			SW1030			Analyst: JBA
Ignitability, Solid	Negative			Burn Rate, mm/	1	1/19/2011 05:40 PM
PH			SW9045B			Analyst: TDW
pH	6.99		0.100	pH Units	1	1/13/2011 11:00 AM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 20-Jan-11

Client: Navajo Refining Company

Work Order: 1101215

Project: DAF

QC BATCH REPORT

Batch ID: 49235 Instrument ID ICP7500 Method: SW1311/6020

MBLK Sample ID: MBLKT1-011011-49235 Units: mg/L Analysis Date: 1/11/2011 06:55 PM

Client ID: Run ID: ICP7500_110111A SeqNo: 2243668 Prep Date: 1/11/2011 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050								
Barium	ND	0.050								
Cadmium	ND	0.050								
Chromium	ND	0.050								
Lead	ND	0.050								
Selenium	ND	0.050								
Silver	ND	0.050								

MBLK Sample ID: MBLKW2-011111-49235 Units: mg/L Analysis Date: 1/11/2011 07:01 PM

Client ID: Run ID: ICP7500_110111A SeqNo: 2243669 Prep Date: 1/11/2011 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050								
Barium	ND	0.050								
Cadmium	ND	0.050								
Chromium	ND	0.050								
Lead	ND	0.050								
Selenium	ND	0.050								
Silver	ND	0.050								

LCS Sample ID: MLCSW2-011111-49235 Units: mg/L Analysis Date: 1/11/2011 07:07 PM

Client ID: Run ID: ICP7500_110111A SeqNo: 2243670 Prep Date: 1/11/2011 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.4692	0.050	0.5	0	93.8	80-120	0			
Barium	0.4641	0.050	0.5	0	92.8	80-120	0			
Cadmium	0.4747	0.050	0.5	0	94.9	80-120	0			
Chromium	0.4749	0.050	0.5	0	95	80-120	0			
Lead	0.4747	0.050	0.5	0	94.9	80-120	0			
Selenium	0.4711	0.050	0.5	0	94.2	80-120	0			
Silver	0.4832	0.050	0.5	0	96.6	80-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1101215
 Project: DAF

QC BATCH REPORT

Batch ID: 49235 Instrument ID ICP7500 Method: SW1311/6020

MS Sample ID: 1101215-01AMS Units: mg/L Analysis Date: 1/11/2011 07:30 PM
 Client ID: DAF Run ID: ICP7500_110111A SeqNo: 2243676 Prep Date: 1/11/2011 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.5067	0.050	0.5	0.00714	99.9	75-125	0			
Barium	0.7347	0.050	0.5	0.2441	98.1	75-125	0			
Cadmium	0.4843	0.050	0.5	0.0008606	96.7	75-125	0			
Chromium	0.4717	0.050	0.5	0.001362	94.1	75-125	0			
Lead	0.4871	0.050	0.5	0.001325	97.2	75-125	0			
Selenium	0.6192	0.050	0.5	0.09884	104	75-125	0			
Silver	0.4537	0.050	0.5	-0.001298	91	75-125	0			

MSD Sample ID: 1101215-01AMSD Units: mg/L Analysis Date: 1/11/2011 07:36 PM
 Client ID: DAF Run ID: ICP7500_110111A SeqNo: 2243677 Prep Date: 1/11/2011 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.4993	0.050	0.5	0.00714	98.4	75-125	0.5067	1.47	25	
Barium	0.7012	0.050	0.5	0.2441	91.4	75-125	0.7347	4.67	25	
Cadmium	0.4764	0.050	0.5	0.0008606	95.1	75-125	0.4843	1.64	25	
Chromium	0.4725	0.050	0.5	0.001362	94.2	75-125	0.4717	0.169	25	
Lead	0.4714	0.050	0.5	0.001325	94	75-125	0.4871	3.28	25	
Selenium	0.6252	0.050	0.5	0.09884	105	75-125	0.6192	0.964	25	
Silver	0.4378	0.050	0.5	-0.001298	87.8	75-125	0.4537	3.57	25	

DUP Sample ID: 1101215-01ADUP Units: mg/L Analysis Date: 1/11/2011 07:19 PM
 Client ID: DAF Run ID: ICP7500_110111A SeqNo: 2243672 Prep Date: 1/11/2011 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050	0	0	0	-0 0	0.00714	0	25	
Barium	0.2416	0.050	0	0	0	-0 0	0.2441	1.03	25	
Cadmium	ND	0.050	0	0	0	-0 0	0.0008606	0	25	
Chromium	ND	0.050	0	0	0	-0 0	0.001362	0	25	
Lead	ND	0.050	0	0	0	-0 0	0.001325	0	25	
Selenium	0.09678	0.050	0	0	0	-0 0	0.09884	2.11	25	
Silver	ND	0.050	0	0	0	-0 0	-0.001298	0	25	

The following samples were analyzed in this batch: 1101215-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
Work Order: 1101215
Project: DAF

QC BATCH REPORT

Batch ID: **49383** Instrument ID **Mercury** Method: **SW7470**

MBLK	Sample ID: GBLKW2-011811-49383				Units: mg/L		Analysis Date: 1/18/2011 02:44 PM			
Client ID:	Run ID: MERCURY_110118A				SeqNo: 2250168		Prep Date: 1/18/2011		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

MBLK	Sample ID: GBLKT1-011711-49383				Units: mg/L		Analysis Date: 1/18/2011 02:48 PM			
Client ID:	Run ID: MERCURY_110118A				SeqNo: 2250170		Prep Date: 1/18/2011		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

LCS	Sample ID: GLCSW2-011811-49383				Units: mg/L		Analysis Date: 1/18/2011 02:46 PM			
Client ID:	Run ID: MERCURY_110118A				SeqNo: 2250169		Prep Date: 1/18/2011		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00487	0.00020	0.005	0	97.4	80-120	0			

MS	Sample ID: 1101360-10CMS				Units: mg/L		Analysis Date: 1/18/2011 02:54 PM			
Client ID:	Run ID: MERCURY_110118A				SeqNo: 2250173		Prep Date: 1/18/2011		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00486	0.00020	0.005	0.000001	97.2	75-125	0			

MSD	Sample ID: 1101360-10CMSD				Units: mg/L		Analysis Date: 1/18/2011 02:56 PM			
Client ID:	Run ID: MERCURY_110118A				SeqNo: 2250174		Prep Date: 1/18/2011		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00487	0.00020	0.005	0.000001	97.4	75-125	0.00486	0.206	20	

DUP	Sample ID: 1101360-10CDUP				Units: mg/L		Analysis Date: 1/18/2011 02:52 PM			
Client ID:	Run ID: MERCURY_110118A				SeqNo: 2250172		Prep Date: 1/18/2011		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020	0	0	0	-0 0	0.000001	0	20	

The following samples were analyzed in this batch:

1101215-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1101215
 Project: DAF

QC BATCH REPORT

Batch ID: 49249 Instrument ID SV-5 Method: SW1311/8270

MBLK Sample ID: SBLKT1-110111-49249 Units: µg/L Analysis Date: 1/11/2011 10:05 PM

Client ID: Run ID: SV-5_110111B SeqNo: 2246833 Prep Date: 1/11/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	ND	5.0								
2,4,6-Trichlorophenol	ND	5.0								
2,4-Dinitrotoluene	ND	5.0								
Cresols, Total	ND	15								
Hexachlorobenzene	ND	5.0								
Hexachlorobutadiene	ND	5.0								
Hexachloroethane	ND	5.0								
Nitrobenzene	ND	5.0								
Pentachlorophenol	ND	5.0								
Pyridine	ND	5.0								
Surr: 2,4,6-Tribromophenol	89.09	5.0	100	0	89.1	42-124	0			
Surr: 2-Fluorobiphenyl	70.31	5.0	100	0	70.3	48-120	0			
Surr: 2-Fluorophenol	60.07	5.0	100	0	60.1	20-120	0			
Surr: 4-Terphenyl-d14	74.26	5.0	100	0	74.3	51-135	0			
Surr: Nitrobenzene-d5	71.51	5.0	100	0	71.5	41-120	0			
Surr: Phenol-d6	68.64	5.0	100	0	68.6	20-120	0			

LCS Sample ID: SLCST1-110111-49249 Units: µg/L Analysis Date: 1/11/2011 10:27 PM

Client ID: Run ID: SV-5_110111B SeqNo: 2246834 Prep Date: 1/11/2011 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	64.37	5.0	100	0	64.4	52-115	0			
2,4,6-Trichlorophenol	66.83	5.0	100	0	66.8	53-115	0			
2,4-Dinitrotoluene	37.57	5.0	50	0	75.1	56-115	0			
Cresols, Total	194.6	15	250	0	77.8	35-115	0			
Hexachlorobenzene	35.55	5.0	50	0	71.1	54-115	0			
Hexachlorobutadiene	33.02	5.0	50	0	66	51-115	0			
Hexachloroethane	33	5.0	50	0	66	54-115	0			
Nitrobenzene	33.39	5.0	50	0	66.8	40-124	0			
Pentachlorophenol	70.67	5.0	100	0	70.7	45-125	0			
Pyridine	25.32	5.0	50	0	50.6	34-115	0			
Surr: 2,4,6-Tribromophenol	83.42	5.0	100	0	83.4	42-124	0			
Surr: 2-Fluorobiphenyl	72.43	5.0	100	0	72.4	48-120	0			
Surr: 2-Fluorophenol	71.51	5.0	100	0	71.5	20-120	0			
Surr: 4-Terphenyl-d14	74.99	5.0	100	0	75	51-135	0			
Surr: Nitrobenzene-d5	74.21	5.0	100	0	74.2	41-120	0			
Surr: Phenol-d6	78.32	5.0	100	0	78.3	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
Work Order: 1101215
Project: DAF

QC BATCH REPORT

Batch ID: **49249** Instrument ID **SV-5** Method: **SW1311/8270**

LCSD	Sample ID: SLCSDT1-110111-49249			Units: µg/L		Analysis Date: 1/11/2011 10:50 PM				
Client ID:	Run ID: SV-5_110111B			SeqNo: 2246835		Prep Date: 1/11/2011		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	62.44	5.0	100	0	62.4	52-115	64.37	3.04	25	
2,4,6-Trichlorophenol	64.19	5.0	100	0	64.2	53-115	66.83	4.04	25	
2,4-Dinitrotoluene	37.05	5.0	50	0	74.1	56-115	37.57	1.41	25	
Cresols, Total	203.9	15	250	0	81.5	35-115	194.6	4.64	25	
Hexachlorobenzene	34.1	5.0	50	0	68.2	54-115	35.55	4.16	25	
Hexachlorobutadiene	29.97	5.0	50	0	59.9	51-115	33.02	9.68	25	
Hexachloroethane	32.11	5.0	50	0	64.2	54-115	33	2.75	25	
Nitrobenzene	32.15	5.0	50	0	64.3	40-124	33.39	3.78	25	
Pentachlorophenol	67.84	5.0	100	0	67.8	45-125	70.67	4.08	25	
Pyridine	21.66	5.0	50	0	43.3	34-115	25.32	15.6	25	
Surr: 2,4,6-Tribromophenol	81.84	5.0	100	0	81.8	42-124	83.42	1.91	25	
Surr: 2-Fluorobiphenyl	69.64	5.0	100	0	69.6	48-120	72.43	3.92	25	
Surr: 2-Fluorophenol	73.26	5.0	100	0	73.3	20-120	71.51	2.41	25	
Surr: 4-Terphenyl-d14	75.09	5.0	100	0	75.1	51-135	74.99	0.135	25	
Surr: Nitrobenzene-d5	70.27	5.0	100	0	70.3	41-120	74.21	5.46	25	
Surr: Phenol-d6	81.16	5.0	100	0	81.2	20-120	78.32	3.55	25	

The following samples were analyzed in this batch:

1101215-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1101215
 Project: DAF

QC BATCH REPORT

Batch ID: R103803 Instrument ID VOA8 Method: SW1311/8260B

MBLK Sample ID: VBLKW-011311-R103803 Units: µg/L Analysis Date: 1/13/2011 12:37 PM

Client ID: Run ID: VOA8_110113A SeqNo: 2245436 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2-Butanone	ND	10								
Benzene	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroform	ND	5.0								
Tetrachloroethene	ND	5.0								
Trichloroethene	ND	5.0								
Vinyl chloride	ND	5.0								
Surr: 1,2-Dichloroethane-d4	52.25	5.0	50	0	104	70-125	0			
Surr: 4-Bromofluorobenzene	48.67	5.0	50	0	97.3	72.4-125	0			
Surr: Dibromofluoromethane	52.35	5.0	50	0	105	71.2-125	0			
Surr: Toluene-d8	50.12	5.0	50	0	100	75-125	0			

MBLK Sample ID: MBLKV1-011111-R103803 Units: µg/L Analysis Date: 1/13/2011 12:58 PM

Client ID: Run ID: VOA8_110113A SeqNo: 2245437 Prep Date: 1/11/2011 DF: 20

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	100								
1,2-Dichloroethane	ND	100								
1,4-Dichlorobenzene	ND	100								
2-Butanone	ND	200								
Benzene	ND	100								
Carbon tetrachloride	ND	100								
Chlorobenzene	ND	100								
Chloroform	ND	100								
Tetrachloroethene	ND	100								
Trichloroethene	ND	100								
Vinyl chloride	ND	100								
Surr: 1,2-Dichloroethane-d4	1051	100	1000	0	105	70-125	0			
Surr: 4-Bromofluorobenzene	985.3	100	1000	0	98.5	72.4-125	0			
Surr: Dibromofluoromethane	1063	100	1000	0	106	71.2-125	0			
Surr: Toluene-d8	1007	100	1000	0	101	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1101215
 Project: DAF

QC BATCH REPORT

Batch ID: R103803 Instrument ID VOA8 Method: SW1311/8260B

MBLK Sample ID: MBLKV1-011211-R103803 Units: µg/L Analysis Date: 1/13/2011 01:19 PM

Client ID: Run ID: VOA8_110113A SeqNo: 2245438 Prep Date: 1/12/2011 DF: 20

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	100								
1,2-Dichloroethane	ND	100								
1,4-Dichlorobenzene	ND	100								
2-Butanone	ND	200								
Benzene	ND	100								
Carbon tetrachloride	ND	100								
Chlorobenzene	ND	100								
Chloroform	ND	100								
Tetrachloroethene	ND	100								
Trichloroethene	ND	100								
Vinyl chloride	ND	100								
Surr: 1,2-Dichloroethane-d4	1032	100	1000	0	103	70-125	0			
Surr: 4-Bromofluorobenzene	967.8	100	1000	0	96.8	72.4-125	0			
Surr: Dibromofluoromethane	1049	100	1000	0	105	71.2-125	0			
Surr: Toluene-d8	1001	100	1000	0	100	75-125	0			

MBLK Sample ID: MBLKV1-011111-R103803 Units: µg/L Analysis Date: 1/13/2011 06:07 PM

Client ID: Run ID: VOA8_110113A SeqNo: 2246488 Prep Date: 1/11/2011 DF: 20

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	100								
1,2-Dichloroethane	ND	100								
1,4-Dichlorobenzene	ND	100								
2-Butanone	ND	200								
Benzene	ND	100								
Carbon tetrachloride	ND	100								
Chlorobenzene	ND	100								
Chloroform	ND	100								
Tetrachloroethene	ND	100								
Trichloroethene	ND	100								
Vinyl chloride	ND	100								
Surr: 1,2-Dichloroethane-d4	1057	100	1000	0	106	70-125	0			
Surr: 4-Bromofluorobenzene	974.9	100	1000	0	97.5	72.4-125	0			
Surr: Dibromofluoromethane	1059	100	1000	0	106	71.2-125	0			
Surr: Toluene-d8	999.6	100	1000	0	100	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1101215
 Project: DAF

QC BATCH REPORT

Batch ID: R103803 Instrument ID VOA8 Method: SW1311/8260B

LCS Sample ID: VLCSW-011311-R103803 Units: µg/L Analysis Date: 1/13/2011 11:36 AM

Client ID: Run ID: VOA8_110113A SeqNo: 2245434 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	49.55	5.0	50	0	99.1	73-124	0			
1,2-Dichloroethane	49.18	5.0	50	0	98.4	76-120	0			
1,4-Dichlorobenzene	48.62	5.0	50	0	97.2	70-130	0			
2-Butanone	83.03	10	100	0	83	70-130	0			
Benzene	49.31	5.0	50	0	98.6	70-128	0			
Carbon tetrachloride	45.12	5.0	50	0	90.2	70-130	0			
Chlorobenzene	49.51	5.0	50	0	99	72-127	0			
Chloroform	51.49	5.0	50	0	103	70-130	0			
Tetrachloroethene	45.02	5.0	50	0	90	70-130	0			
Trichloroethene	48.82	5.0	50	0	97.6	72-129	0			
Vinyl chloride	49.83	5.0	50	0	99.7	70-130	0			
Surr: 1,2-Dichloroethane-d4	50.58	5.0	50	0	101	70-125	0			
Surr: 4-Bromofluorobenzene	48.09	5.0	50	0	96.2	72-125	0			
Surr: Dibromofluoromethane	52.17	5.0	50	0	104	71-125	0			
Surr: Toluene-d8	49.82	5.0	50	0	99.6	75-125	0			

LCSD Sample ID: VLCSDW-011311-R103803 Units: µg/L Analysis Date: 1/13/2011 11:56 AM

Client ID: Run ID: VOA8_110113A SeqNo: 2245435 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	41.76	5.0	50	0	83.5	73-124	49.55	17.1	20	
1,2-Dichloroethane	47.14	5.0	50	0	94.3	76-120	49.18	4.24	20	
1,4-Dichlorobenzene	46.05	5.0	50	0	92.1	70-130	48.62	5.43	20	
2-Butanone	96.88	10	100	0	96.9	70-130	83.03	15.4	20	
Benzene	45.58	5.0	50	0	91.2	70-128	49.31	7.86	20	
Carbon tetrachloride	39.12	5.0	50	0	78.2	70-130	45.12	14.3	20	
Chlorobenzene	47.07	5.0	50	0	94.1	72-127	49.51	5.06	20	
Chloroform	46.98	5.0	50	0	94	70-130	51.49	9.16	20	
Tetrachloroethene	41.8	5.0	50	0	83.6	70-130	45.02	7.4	20	
Trichloroethene	43.97	5.0	50	0	87.9	72-129	48.82	10.5	20	
Vinyl chloride	43.73	5.0	50	0	87.5	70-130	49.83	13	20	
Surr: 1,2-Dichloroethane-d4	49.94	5.0	50	0	99.9	70-125	50.58	1.28	20	
Surr: 4-Bromofluorobenzene	48.58	5.0	50	0	97.2	72-125	48.09	1.02	20	
Surr: Dibromofluoromethane	50.83	5.0	50	0	102	71-125	52.17	2.61	20	
Surr: Toluene-d8	50.48	5.0	50	0	101	75-125	49.82	1.31	20	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1101215
 Project: DAF

QC BATCH REPORT

Batch ID: R103803 Instrument ID VOA8 Method: SW1311/8260B

MS Sample ID: 1101289-03AMS Units: µg/L Analysis Date: 1/13/2011 02:41 PM

Client ID: Run ID: VOA8_110113A SeqNo: 2245487 Prep Date: 1/12/2011 DF: 20

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	931.7	100	1000	0	93.2	73-124	0			
1,2-Dichloroethane	1006	100	1000	0	101	76-120	0			
1,4-Dichlorobenzene	948	100	1000	0	94.8	70-130	0			
2-Butanone	690.5	200	2000	0	34.5	70-130	0			S
Benzene	997.3	100	1000	0	99.7	70-128	0			
Carbon tetrachloride	888.7	100	1000	0	88.9	70-130	0			
Chlorobenzene	1005	100	1000	0	101	72-127	0			
Chloroform	1051	100	1000	0	105	70-130	0			
Tetrachloroethene	896.6	100	1000	14.7	88.2	70-130	0			
Trichloroethene	965.4	100	1000	0	96.5	72-129	0			
Vinyl chloride	935.8	100	1000	0	93.6	70-130	0			
Surr: 1,2-Dichloroethane-d4	1051	100	1000	0	105	70-125	0			
Surr: 4-Bromofluorobenzene	961.9	100	1000	0	96.2	72-125	0			
Surr: Dibromofluoromethane	1050	100	1000	0	105	71-125	0			
Surr: Toluene-d8	995.3	100	1000	0	99.5	75-125	0			

MSD Sample ID: 1101289-03AMS Units: µg/L Analysis Date: 1/13/2011 03:02 PM

Client ID: Run ID: VOA8_110113A SeqNo: 2245488 Prep Date: 1/12/2011 DF: 20

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	980.6	100	1000	0	98.1	73-124	931.7	5.12	20	
1,2-Dichloroethane	996	100	1000	0	99.6	76-120	1006	0.968	20	
1,4-Dichlorobenzene	972.8	100	1000	0	97.3	70-130	948	2.58	20	
2-Butanone	612.9	200	2000	0	30.6	70-130	690.5	11.9	20	S
Benzene	992.6	100	1000	0	99.3	70-128	997.3	0.471	20	
Carbon tetrachloride	882.9	100	1000	0	88.3	70-130	888.7	0.653	20	
Chlorobenzene	1000	100	1000	0	100	72-127	1005	0.491	20	
Chloroform	1068	100	1000	0	107	70-130	1051	1.6	20	
Tetrachloroethene	917.8	100	1000	14.7	90.3	70-130	896.6	2.33	20	
Trichloroethene	987	100	1000	0	98.7	72-129	965.4	2.22	20	
Vinyl chloride	978	100	1000	0	97.8	70-130	935.8	4.4	20	
Surr: 1,2-Dichloroethane-d4	1056	100	1000	0	106	70-125	1051	0.507	20	
Surr: 4-Bromofluorobenzene	962.3	100	1000	0	96.2	72-125	961.9	0.032	20	
Surr: Dibromofluoromethane	1074	100	1000	0	107	71-125	1050	2.31	20	
Surr: Toluene-d8	998.1	100	1000	0	99.8	75-125	995.3	0.277	20	

The following samples were analyzed in this batch: 1101215-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
Work Order: 1101215
Project: DAF

QC BATCH REPORT

Batch ID: R103788 Instrument ID WetChem Method: SW9045B

LCS Sample ID: WLCSW1-011311-R103788 Units: pH Units Analysis Date: 1/13/2011 11:00 AM

Client ID: Run ID: WETCHEM_110113B SeqNo: 2245205 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6	0.10	6	0	100	90-110	0			

DUP Sample ID: 1101210-03ADUP Units: pH Units Analysis Date: 1/13/2011 11:00 AM

Client ID: Run ID: WETCHEM_110113B SeqNo: 2245218 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6.97	0.10	0	0	0	-0 0	6.94	0.431	20	

The following samples were analyzed in this batch:

1101215-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
Work Order: 1101215
Project: DAF

QC BATCH REPORT

Batch ID: **R104125** Instrument ID **WetChem** Method: **SW1030**

DUP Sample ID: **1101215-01ADUP** Units: **Burn Rate, mm/se** Analysis Date: **1/19/2011 05:40 PM**
Client ID: **DAF** Run ID: **WETCHEM_110119L** SeqNo: **2252334** Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ignitability, Solid	ND	0	0	0	0		0	0		

The following samples were analyzed in this batch:

1101215-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 20-Jan-11

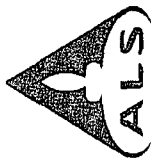
Client: Navajo Refining Company
Project: DAF
WorkOrder: 1101215

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
µg/L	Micrograms per Liter
Turn Rate, mm/sec	
mg/Kg	Milligrams per Kilogram
mg/L	Milligrams per Liter
pH Units	



ALS Laboratory Group
10450 Stancil Rd., Suite 210
Houston, Texas 77099
Tel: +1 281 530 5656
Fax: +1 281 530 5887

Chain of Custody Form

☐ **ALS Laboratory Group**
3352 128th Ave.
Holland, MI 49424-9263
Tel: +1 616 399 6070
Fax: +1 616 399 6185

Page 1 of 1

Customer Information				Project Information				ALS Project Manager: <u>DAF</u> ALS Work Order #: <u>1015</u>																							
Purchase Order	Work Order	Company Name	Send Report To	Project Name	Project Number	Bill To Company	Invoice Attn	Address	City/State/Zip	Phone	Fax	e-Mail Address	No.	Sample Description	Date	Time	Matrix	Pres	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold	
		Narajo Refining Co.												1	DAF	1-6-11	10:00	L	Y	1	X	X	X	X							
		Aaron Storage												2	Trip Blank																
		PO Box 159												3	Temp Blank																
														4																	
														5																	
														6																	
														7																	
														8																	
														9																	
														10																	
Sampler(s) Please Print & Sign				Shipment Method				Required Turnaround Time: (Check Box)				Results Due Date:																			
Aaron Storage				Fed Ex				5 to 10 Wk Days				24 Hour																			
Relinquished by: <u>Aaron Storage</u>				Received by: <u>EW</u>				Notes:																							
Relinquished by: <u>1-6-11</u>				Received by: <u>1615</u>																											
Logged by (Laboratory): <u>1-6-11</u>				Checked by (Laboratory): <u>1-6-11</u>																											
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035																															

Notes: EW

QC Package: (Check One Box Below)
☐ Level II Std OC
☐ Level III Std QC/Raw Date
☐ Level IV SW846/CLP
☐ Other

QC Package: (Check One Box Below)
☐ TRAP Checklist
☐ TRAP Level IV

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ALS Environmental

Sample Receipt Checklist

Client Name: **NAVAJO REFINING**

Date/Time Received: **08-Jan-11 09:00**

Work Order: **1101215**

Received by: **LOT**

Checklist completed by *Logan Tuck* 08-Jan-11
eSignature Date

Reviewed by: *Jay Lynn F Thibault* 10-Jan-11
eSignature Date

Matrices: soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☐	No ☒	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	<u>1.4</u> <u>002</u>		
Cooler(s)/Kit(s):	<u>3862</u>		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:	<u>-</u>		
Login Notes:	<u>Multiple chains send with one set of trip blanks</u>		

=====

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

1101215



ALS Environmental

10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

CUSTODY SEAL

Date: 1-7-11 Time: 1615
Name: Arlene Stanger
Company: Navajo Refining Co.

Seal Broken By:

RN

Date:

1-7-11

Client: ALS Environmental
Project: 1101215
Work Order: 1101226

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1101226-01	1101215-01B	Soil		1/6/2011 10:00	1/11/2011 11:20	☐

Client: ALS Environmental
Project: 1101215
WorkOrder: 1101226

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
TDL	Target Detection Limit

<u>Units Reported</u>	<u>Description</u>
mg/Kg	Milligrams per Kilogram

ALS Group USA, Corp

Date: 18-Jan-11

Client: ALS Environmental

Project: 1101215

Work Order: 1101226

Sample ID: 1101215-01B

Lab ID: 1101226-01

Collection Date: 1/6/2011 10:00 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
CYANIDE, REACTIVE			SW7.3.3.2			Analyst: EE
Cyanide, Reactive	ND		40.0	mg/Kg	1	1/18/2011 09:00 AM
SULFIDE, REACTIVE			SW7.3.4.2			Analyst: EE
Sulfide, Reactive	ND		40.0	mg/Kg	1	1/18/2011 09:00 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 18-Jan-11

Client: ALS Environmental

Work Order: 1101226

Project: 1101215

QC BATCH REPORT

Batch ID: **R86040** Instrument ID **WETCHEM** Method: **SW7.3.4.2**

MBLK	Sample ID: WBLKW1-011811-R86040	Units: mg/Kg	Analysis Date: 1/18/2011 09:00 AM
Client ID:	Run ID: WETCHEM_110118A	SeqNo: 1535571	Prep Date: DF: 1
Analyte	Result	PQL	SPK Val
			SPK Ref Value
			%REC
			Control Limit
			RPD Ref Value
			%RPD
			RPD Limit
			Qual
Sulfide, Reactive	ND	40	

The following samples were analyzed in this batch:

1101226-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ALS Environmental
Work Order: 1101226
Project: 1101215

QC BATCH REPORT

Batch ID: **R86041** Instrument ID **WETCHEM** Method: **SW7.3.3.2**

MBLK Sample ID: **WBLKW1-011811-R86041** Units: **mg/Kg** Analysis Date: **1/18/2011 09:00 AM**

Client ID: Run ID: **WETCHEM_110118B** SeqNo: **1535592** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	ND	40								

LCS Sample ID: **WLCSW1-011811-R86041** Units: **mg/Kg** Analysis Date: **1/18/2011 09:00 AM**

Client ID: Run ID: **WETCHEM_110118B** SeqNo: **1535593** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	249.6	40	250	0	99.8	75-125	0			

LCSD Sample ID: **WLCSDW1-011811-R86041** Units: **mg/Kg** Analysis Date: **1/18/2011 09:00 AM**

Client ID: Run ID: **WETCHEM_110118B** SeqNo: **1535601** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	234.9	40	250	0	94	75-125	249.6	6.06	35	

MS Sample ID: **1101220-03A MS** Units: **mg/Kg** Analysis Date: **1/18/2011 09:00 AM**

Client ID: Run ID: **WETCHEM_110118B** SeqNo: **1535595** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	234.9	40	250	0	94	50-150	0			

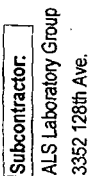
MSD Sample ID: **1101220-03A MSD** Units: **mg/Kg** Analysis Date: **1/18/2011 09:00 AM**

Client ID: Run ID: **WETCHEM_110118B** SeqNo: **1535596** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	234.9	40	250	0	94	50-150	234.9	0	35	

The following samples were analyzed in this batch: 1101226-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



Holland, MI 49424

TEL: (616) 399-6070
FAX: (616) 399-6185
Acct #:

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Date: 08-Jan-11
COC ID: 9905
Due Date: 20-Jan-11

8221011

[illegible]

Comments:

Relinquished to: mmf Date/time: 11/01 Fels

Received by: 	Date/Time 11/11/20
Received by: 	Date/Time 11/11/20

Report/QC Level	Std
-----------------	-----

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: ALS - HOUSTON

Date/Time Received: 11-Jan-11 11:20

Work Order: 1101226

Received by: WJC

Checklist completed by Bill Carey 18-Jan-11
eSignature Date

Reviewed by: Bill Carey 18-Jan-11
eSignature Date

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	<u>4.0 C</u>		
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:			
Login Notes:			

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

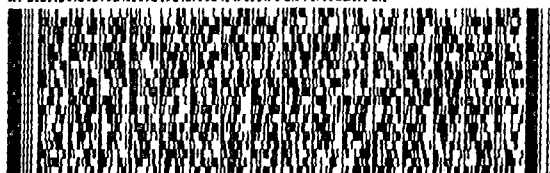
Regarding:

Comments:

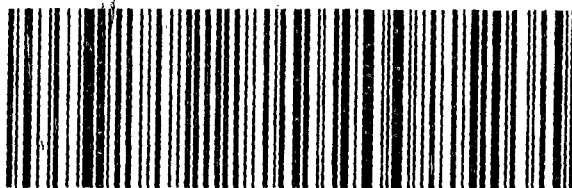
CorrectiveAction:

BILL SENDER

REF: SUBCONTRACT

**E**

49424
MI-US
GRR



505C1/DE77/DB47

Part # 156146-434 NRIT V3 12-00

Chavez, Carl J, EMNRD

From: Moore, Darrell [Darrell.Moore@hollycorp.com]
Sent: Wednesday, October 27, 2010 8:23 AM
To: Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD
Subject: DAF Qtrly
Attachments: October 2010 DAF.pdf

Hope and Carl

Attached, please find the quarterly analysis of our Dissolved Air Flotation (DAF) waste that we are required to submit to you. If there are any questions, please call me at 575-746-5281.

Darrell Moore
Environmental Manager for Water and Waste
Navajo Refining Company, LLC
Phone Number 575-746-5281
Cell Number 575-703-5058
Fax Number 575-746-5451

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23-Oct-2010

Aaron Strange
Navajo Refining Company
PO Box 159
Artesia, NM 88211

Tel: (575) 748-3311
Fax: (575) 746-5421

Re: DAF

Work Order: 1010451

Dear Aaron,

ALS Environmental received 1 sample on 12-Oct-2010 08:45 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 28.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

JayLynn F Thibault

Electronically approved by: Glenda H. Ramos

JayLynn F Thibault
Project Manager



Certificate No: T104704231-09A-TX

ADDRESS 10450 Stuebner Rd. Suite 210 Houston, Texas 77099-4358 | PHONE (281) 530-0050 | FAX (281) 530-5887

EMAIL: info@alsglobal.com | www.alsglobal.com



www.alsglobal.com

RIGHT SOLUTIONS. RIGHT PARTNER.

ALS Environmental

Date: 23-Oct-10

Client: Navajo Refining Company
Project: DAF
Work Order: 1010451

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1010451-01	DAF	Solid		10/11/2010 09:25	10/12/2010 08:45	☐

ALS Environmental*Date: 23-Oct-10*

Client: Navajo Refining Company
Project: DAF
Work Order: 1010451

Case Narrative

Batch 47164, Method 1311_SV, Sample SLCSDT1-101021: insufficient sample for MS/MSD

ALS Environmental

Date: 23-Oct-10

Client: Navajo Refining Company
 Project: DAF
 Sample ID: DAF
 Collection Date: 10/11/2010 09:25 AM

Work Order: 1010451
 Lab ID: 1010451-01
 Matrix: SOLID

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
TCLP MERCURY							
			Method: SW7470		Leachate: SW7470 / 10/21/10		
					Prep: SW7470 / 10/21/10		
Mercury	U		0.0000420	0.000200	mg/L	1	10/21/2010 16:32
TCLP METALS							
			Method: SW1311/6020		Leachate: SW7470 / 10/21/10		
					Prep: SW3010A / 10/19/10		
Arsenic	0.0409	J	0.00900	0.0500	mg/L	10	10/20/2010 11:03
Barium	0.0813		0.00700	0.0500	mg/L	10	10/20/2010 11:03
Cadmium	U		0.00600	0.0500	mg/L	10	10/20/2010 11:03
Chromium	0.00656	J	0.00600	0.0500	mg/L	10	10/20/2010 11:03
Lead	0.00490	J	0.00400	0.0500	mg/L	10	10/20/2010 11:03
Selenium	0.0661		0.0250	0.0500	mg/L	10	10/20/2010 11:03
Silver	U		0.00700	0.0500	mg/L	10	10/20/2010 11:03
TCLP SEMIVOLATILES							
			Method: SW1311/8270		Leachate: SW1311 / 10/19/10		
					Prep: SW3510 / 10/21/10		
2,4,5-Trichlorophenol	U		0.90	5.0	µg/L	1	10/21/2010 12:41
2,4,6-Trichlorophenol	U		1.4	5.0	µg/L	1	10/21/2010 12:41
2,4-Dinitrotoluene	U		1.0	5.0	µg/L	1	10/21/2010 12:41
Cresols, Total	U		2.0	15	µg/L	1	10/21/2010 12:41
Hexachlorobenzene	U		1.1	5.0	µg/L	1	10/21/2010 12:41
Hexachlorobutadiene	U		1.1	5.0	µg/L	1	10/21/2010 12:41
Hexachloroethane	U		1.0	5.0	µg/L	1	10/21/2010 12:41
Nitrobenzene	U		0.80	5.0	µg/L	1	10/21/2010 12:41
Pentachlorophenol	U		1.6	5.0	µg/L	1	10/21/2010 12:41
Pyridine	U		2.0	5.0	µg/L	1	10/21/2010 12:41
Surr: 2,4,6-Tribromophenol	59.0			42-124	%REC	1	10/21/2010 12:41
Surr: 2-Fluorobiphenyl	53.2			48-120	%REC	1	10/21/2010 12:41
Surr: 2-Fluorophenol	41.4			20-120	%REC	1	10/21/2010 12:41
Surr: 4-Terphenyl-d14	74.0			51-135	%REC	1	10/21/2010 12:41
Surr: Nitrobenzene-d5	47.4			41-120	%REC	1	10/21/2010 12:41
Surr: Phenol-d6	43.8			20-120	%REC	1	10/21/2010 12:41
TCLP VOLATILES							
			Method: SW1311/8260B		Leachate: SW1311 / 10/20/10		
					Analyst: KKP		
1,1-Dichloroethene	U		12	100	µg/L	20	10/21/2010 20:13
1,2-Dichloroethane	U		10	100	µg/L	20	10/21/2010 20:13
1,4-Dichlorobenzene	U		14	100	µg/L	20	10/21/2010 20:13
2-Butanone	U		16	200	µg/L	20	10/21/2010 20:13
Benzene	U		12	100	µg/L	20	10/21/2010 20:13
Carbon tetrachloride	U		12	100	µg/L	20	10/21/2010 20:13
Chlorobenzene	U		10	100	µg/L	20	10/21/2010 20:13
Chloroform	U		10	100	µg/L	20	10/21/2010 20:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Oct-10

Client: Navajo Refining Company
 Project: DAF
 Sample ID: DAF
 Collection Date: 10/11/2010 09:25 AM

Work Order: 1010451
 Lab ID: 1010451-01
 Matrix: SOLID

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
Tetrachloroethene	U		10	100	µg/L	20	10/21/2010 20:13
Trichloroethene	U		14	100	µg/L	20	10/21/2010 20:13
Vinyl chloride	U		12	100	µg/L	20	10/21/2010 20:13
Surr: 1,2-Dichloroethane-d4	106			70-125	%REC	20	10/21/2010 20:13
Surr: 4-Bromofluorobenzene	102			72-125	%REC	20	10/21/2010 20:13
Surr: Dibromofluoromethane	106			71-125	%REC	20	10/21/2010 20:13
Surr: Toluene-d8	98.5			75-125	%REC	20	10/21/2010 20:13
REACTIVE CYANIDE			Method: SW-846				Analyst: HN
Reactive Cyanide	U		23	40.0	mg/Kg	1	10/14/2010 11:00
REACTIVE SULFIDE			Method: SW-846				Analyst: HN
Reactive Sulfide	U		14	40.0	mg/Kg	1	10/14/2010 11:00
IGNITABILITY			Method: SW1030				Analyst: JLC
Ignitability, Solid	Negative		0		no unit	1	10/19/2010 11:00
PH			Method: SW9045B				Analyst: JLC
pH	6.65		0.10	0.100	pH Units	1	10/19/2010 10:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 23-Oct-10

Client: Navajo Refining Company
Work Order: 1010451
Project: DAF

QC BATCH REPORT

Batch ID: 47100 Instrument ID ICP7500 Method: SW1311/6020

MBLK	Sample ID: MBLKT1-101810-47100				Units: mg/L		Analysis Date: 10/20/2010 10:38 A			
Client ID:	Run ID: ICP7500_101019A				SeqNo: 2137182		Prep Date: 10/19/2010		DF: 10.	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.050								
Barium	0.01059	0.050								J
Cadmium	U	0.050								
Chromium	U	0.050								
Lead	0.004828	0.050								J
Selenium	U	0.050								
Silver	U	0.050								

MBLK	Sample ID: MBLKW3-101910-47100				Units: mg/L		Analysis Date: 10/20/2010 10:44 A			
Client ID:	Run ID: ICP7500_101019A				SeqNo: 2137183		Prep Date: 10/19/2010		DF: 10	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.050								
Barium	U	0.050								
Cadmium	U	0.050								
Chromium	U	0.050								
Lead	U	0.050								
Selenium	U	0.050								
Silver	U	0.050								

LCS	Sample ID: MLCSW3-101910-47100					Units: mg/L		Analysis Date: 10/20/2010 10:50 A		
Client ID:	Run ID: ICP7500_101019A				SeqNo: 2137184		Prep Date: 10/19/2010		DF: 10	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.4678	0.050	0.5	0	33.6	80-120	0			
Barium	0.4882	0.050	0.5	0	37.6	80-120	0			
Cadmium	0.5035	0.050	0.5	0	101	80-120	0			
Chromium	0.4843	0.050	0.5	0	36.9	80-120	0			
Lead	0.4917	0.050	0.5	0	38.3	80-120	0			
Selenium	0.504	0.050	0.5	0	101	80-120	0			
Silver	0.5127	0.050	0.5	0	103	80-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1010451
 Project: DAF

QC BATCH REPORT

Batch ID: 47100 Instrument ID ICP7500 Method: SW1311/6020

MS		Sample ID: 1010594-01CMS				Units: mg/L		Analysis Date: 10/20/2010 11:59 A			
Client ID:		Run ID: ICP7500_101019A				SeqNo: 2137195		Prep Date: 10/19/2010		DF: 10	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	0.51	0.050	0.5	0.01035	99.9	75-125	0				
Barium	0.8481	0.050	0.5	0.3779	94	75-125	0				
Cadmium	0.5122	0.050	0.5	0.003205	102	75-125	0				
Chromium	0.5157	0.050	0.5	0.0301	97.1	75-125	0				
Lead	0.4855	0.050	0.5	0.003191	96.5	75-125	0				
Selenium	0.5314	0.050	0.5	-0.01077	108	75-125	0				
Silver	0.4537	0.050	0.5	-0.002128	91.2	75-125	0				

MSD	Sample ID: 1010594-01CMSD					Units: mg/L		Analysis Date: 10/20/2010 12:05 PM		
Client ID:	Run ID: ICP7500_101019A				SeqNo: 2137196		Prep Date: 10/19/2010		DF: 10	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.5067	0.050	0.5	0.01035	99.3	75-125	0.51	0.649	25	
Barium	0.8598	0.050	0.5	0.3779	96.4	75-125	0.8481	1.37	25	
Cadmium	0.4958	0.050	0.5	0.003205	98.5	75-125	0.5122	3.25	25	
Chromium	0.5182	0.050	0.5	0.0301	97.6	75-125	0.5157	0.484	25	
Lead	0.4838	0.050	0.5	0.003191	96.1	75-125	0.4855	0.351	25	
Selenium	0.5599	0.050	0.5	-0.01077	114	75-125	0.5314	5.22	25	
Silver	0.4614	0.050	0.5	-0.002128	92.7	75-125	0.4537	1.68	25	

DUP	Sample ID: 1010594-01CDUP					Units: mg/L		Analysis Date: 10/20/2010 11:53 A			
Client ID:	Run ID: ICP7500_101019A					SeqNo: 2137194		Prep Date: 10/19/2010		DF: 10	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	U	0.050	0	0	0	0-0	0.01035	0	25		
Barium	0.3728	0.050	0	0	0	0-0	0.3779	1.36	25		
Cadmium	U	0.050	0	0	0	0-0	0.003205	0	25		
Chromium	0.03124	0.050	0	0	0	0-0	0.0301	0	25	J	
Lead	U	0.050	0	0	0	0-0	0.003191	0	25		
Selenium	U	0.050	0	0	0	0-0	-0.01077	0	25		
Silver	U	0.050	0	0	0	0-0	-0.002128	0	25		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1010451
 Project: DAF

QC BATCH REPORT

Batch ID: 47100 Instrument ID ICP7500 Method: SW1311/6020

PDS Sample ID: 1010594-01CBS Units: mg/L Analysis Date: 10/20/2010 12:11 PM

Client ID: Run ID: ICP7500_101019A SeqNo: 2137197 Prep Date: DF: 10

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.9666	0.050	1	0.01035	95.6	75-125	0			
Barium	1.293	0.050	1	0.3779	91.5	75-125	0			
Cadmium	0.921	0.050	1	0.003205	91.8	75-125	0			
Chromium	0.9567	0.050	1	0.0301	92.7	75-125	0			
Lead	0.8675	0.050	1	0.003191	86.4	75-125	0			
Selenium	1.013	0.050	1	-0.01077	102	75-125	0			
Silver	0.8195	0.050	1	-0.002128	82.2	75-125	0			

SD Sample ID: 1010594-01C DIL SX Units: mg/L Analysis Date: 10/20/2010 12:17 PM

Client ID: Run ID: ICP7500_101019A SeqNo: 2137198 Prep Date: DF: 10

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Arsenic	U	0.050	0	0	0	0-0	0.01035	0	10	
Barium	0.08254	0.050	0	0	0	0-0	0.3779	78.2	10	R
Cadmium	U	0.050	0	0	0	0-0	0.003205	0	10	
Chromium	0.008579	0.050	0	0	0	0-0	0.0301	0	10	J
Lead	0.004526	0.050	0	0	0	0-0	0.003191	0	10	J
Selenium	U	0.050	0	0	0	0-0	-0.01077	0	10	
Silver	U	0.050	0	0	0	0-0	-0.002128	0	10	

The following samples were analyzed in this batch: 1010451-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1010451
 Project: DAF

QC BATCH REPORT

Batch ID: 47165 Instrument ID Mercury Method: SW7470

MBLK Sample ID: GBLKW1-102110-47165 Units: mg/L Analysis Date: 10/21/2010 04:09 PM

Client ID: Run ID: MERCURY_101021A SeqNo: 2139458 Prep Date: 10/21/2010 DF: 1

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.00020								

MBLK Sample ID: GBLKT1-102010-47165 Units: mg/L Analysis Date: 10/21/2010 04:30 PM

Client ID: Run ID: MERCURY_101021A SeqNo: 2139466 Prep Date: 10/21/2010 DF: 1

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.00020	0	0	0	0-0	0			

LCS Sample ID: GLCSW1-102110-47165 Units: mg/L Analysis Date: 10/21/2010 04:11 PM

Client ID: Run ID: MERCURY_101021A SeqNo: 2139459 Prep Date: 10/21/2010 DF: 1

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00499	0.00020	0.005	0	99.8	80-120	0			

MS Sample ID: 1010310-05AMS Units: mg/L Analysis Date: 10/21/2010 04:19 PM

Client ID: Run ID: MERCURY_101021A SeqNo: 2139462 Prep Date: 10/21/2010 DF: 1

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.005	0.00020	0.005	0.000005	99.9	75-125	0			

MSD Sample ID: 1010310-05AMSD Units: mg/L Analysis Date: 10/21/2010 04:21 PM

Client ID: Run ID: MERCURY_101021A SeqNo: 2139463 Prep Date: 10/21/2010 DF: 1

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00483	0.00020	0.005	0.000005	96.5	75-125	0.005	3.46	20	

DUP Sample ID: 1010310-05ADUP Units: mg/L Analysis Date: 10/21/2010 04:17 PM

Client ID: Run ID: MERCURY_101021A SeqNo: 2139461 Prep Date: 10/21/2010 DF: 1

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.00020	0	0	0	0-0	0.000005	0	20	

The following samples were analyzed in this batch:

1010451-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1010451
 Project: DAF

QC BATCH REPORT

Batch ID: 47164 Instrument ID SV-3 Method: SW1311/8270

MBLK		Sample ID: SBLKT1-101021-47164				Units: µg/L		Analysis Date: 10/21/2010 11:36 A		
Client ID:		Run ID: SV-3_101021B				SeqNo: 2139122		Prep Date: 10/21/2010		DF: 1
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	U	5.0								
2,4,6-Trichlorophenol	U	5.0								
2,4-Dinitrotoluene	U	5.0								
Cresols, Total	U	15								
Hexachlorobenzene	U	5.0								
Hexachlorobutadiene	U	5.0								
Hexachloroethane	U	5.0								
Nitrobenzene	U	5.0								
Pentachlorophenol	U	5.0								
Pyridine	U	5.0								
Surr: 2,4,6-Tribromophenol	72.97	5.0	100	0	73	42-124	0			
Surr: 2-Fluorobiphenyl	75.26	5.0	100	0	75.3	48-120	0			
Surr: 2-Fluorophenol	59.69	5.0	100	0	59.7	20-120	0			
Surr: 4-Terphenyl-d14	75.83	5.0	100	0	75.8	51-135	0			
Surr: Nitrobenzene-d5	69.09	5.0	100	0	69.1	41-120	0			
Surr: Phenol-d6	61.54	5.0	100	0	61.5	20-120	0			

LCS		Sample ID: SLCST1-101021-47164				Units: µg/L		Analysis Date: 10/21/2010 11:57 A		
Client ID:		Run ID: SV-3_101021B				SeqNo: 2139123		Prep Date: 10/21/2010		DF: 1
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	85.67	5.0	100	0	85.7	52-115	0			
2,4,6-Trichlorophenol	79.01	5.0	100	0	79	53-115	0			
2,4-Dinitrotoluene	41.27	5.0	50	0	82.5	56-115	0			
Cresols, Total	166.1	15	250	0	66.4	35-115	0			
Hexachlorobenzene	43.95	5.0	50	0	87.9	54-115	0			
Hexachlorobutadiene	42.5	5.0	50	0	85	51-115	0			
Hexachloroethane	37.26	5.0	50	0	74.5	54-115	0			
Nitrobenzene	37.87	5.0	50	0	75.7	40-124	0			
Pentachlorophenol	70.75	5.0	100	0	70.7	45-125	0			
Pyridine	26.3	5.0	50	0	53.6	34-115	0			
Surr: 2,4,6-Tribromophenol	84.2	5.0	100	0	84.2	42-124	0			
Surr: 2-Fluorobiphenyl	82.74	5.0	100	0	82.7	48-120	0			
Surr: 2-Fluorophenol	68.77	5.0	100	0	68.8	20-120	0			
Surr: 4-Terphenyl-d14	77.56	5.0	100	0	77.6	51-135	0			
Surr: Nitrobenzene-d5	71.14	5.0	100	0	71.1	41-120	0			
Surr: Phenol-d6	69.54	5.0	100	0	69.5	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1010451
 Project: DAF

QC BATCH REPORT

Batch ID: 47164 Instrument ID SV-3 Method: SW1311/8270

LCSD Sample ID: SLCSDT1-101021-47164 Units: µg/L Analysis Date: 10/21/2010 12:19 PM

Client ID: Run ID: SV-3_101021B SeqNo: 2139124 Prep Date: 10/21/2010 DF: 1

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	90.73	5.0	100	0	90.7	52-115	85.67	5.74	25	
2,4,6-Trichlorophenol	84.93	5.0	100	0	84.9	53-115	79.01	7.22	25	
2,4-Dinitrotoluene	44.12	5.0	50	0	88.2	56-115	41.27	6.69	25	
Cresols, Total	179.1	15	250	0	71.6	35-115	166.1	7.54	25	
Hexachlorobenzene	47.8	5.0	50	0	95.6	54-115	43.95	8.39	25	
Hexachlorobutadiene	45.54	5.0	50	0	91.1	51-115	42.5	6.9	25	
Hexachloroethane	40.74	5.0	50	0	81.5	54-115	37.26	8.93	25	
Nitrobenzene	41.33	5.0	50	0	82.7	40-124	37.87	8.73	25	
Pentachlorophenol	68.03	5.0	100	0	68	45-125	70.75	3.92	25	
Pyridine	29.27	5.0	50	0	58.5	34-115	26.8	8.8	25	
Surr: 2,4,6-Tribromophenol	88.71	5.0	100	0	88.7	42-124	84.2	5.21	25	
Surr: 2-Fluorobiphenyl	90.34	5.0	100	0	90.3	48-120	82.74	8.78	25	
Surr: 2-Fluorophenol	73.75	5.0	100	0	73.8	20-120	68.77	6.99	25	
Surr: 4-Terphenyl-d14	84.52	5.0	100	0	84.5	51-135	77.56	8.59	25	
Surr: Nitrobenzene-d5	77.47	5.0	100	0	77.5	41-120	71.14	8.51	25	
Surr: Phenol-d6	73.89	5.0	100	0	73.9	20-120	69.54	6.07	25	

The following samples were analyzed in this batch:

1010451-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1010451
 Project: DAF

QC BATCH REPORT

Batch ID: R99432 Instrument ID VOA8 Method: SW1311/8260B

MBLK Sample ID: VBLKW-101021-R99432 Units: µg/L Analysis Date: 10/21/2010 05:08 PM

Client ID: Run ID: VOA8_101021B SeqNo: 2140992 Prep Date: DF: 1

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	U	5.0								
1,2-Dichloroethane	U	5.0								
1,4-Dichlorobenzene	U	5.0								
2-Butanone	U	10								
Benzene	U	5.0								
Carbon tetrachloride	U	5.0								
Chlorobenzene	U	5.0								
Chloroform	U	5.0								
Tetrachloroethene	U	5.0								
Trichloroethene	U	5.0								
Vinyl chloride	U	5.0								
Surr: 1,2-Dichloroethane-d4	51.66	5.0	50	0	103	70-125	0			
Surr: 4-Bromofluorobenzene	50.46	5.0	50	0	101	72.4-125	0			
Surr: Dibromofluoromethane	50.59	5.0	50	0	101	71.2-125	0			
Surr: Toluene-d8	50.04	5.0	50	0	100	75-125	0			

MBLK Sample ID: MBLKV-101810-R99432 Units: µg/L Analysis Date: 10/21/2010 06:18 PM

Client ID: Run ID: VOA8_101021B SeqNo: 2140993 Prep Date: DF: 20

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	U	100								
1,2-Dichloroethane	U	100								
1,4-Dichlorobenzene	U	100								
2-Butanone	U	200								
Benzene	U	100								
Carbon tetrachloride	U	100								
Chlorobenzene	U	100								
Chloroform	U	100								
Tetrachloroethene	U	100								
Trichloroethene	U	100								
Vinyl chloride	U	100								
Surr: 1,2-Dichloroethane-d4	1060	100	1000	0	106	70-125	0			
Surr: 4-Bromofluorobenzene	1013	100	1000	0	101	72.4-125	0			
Surr: Dibromofluoromethane	1047	100	1000	0	105	71.2-125	0			
Surr: Toluene-d8	994.3	100	1000	0	99.4	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 1010451
 Project: DAF

QC BATCH REPORT

Batch ID: R99432 Instrument ID VOA8 Method: SW1311/8260B

LCS		Sample ID: VLCSW-101021-R99432			Units: µg/L		Analysis Date: 10/21/2010 03:11 PM			
Client ID:		Run ID: VOA8_101021B			SeqNo: 2140989		Prep Date:		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	50.28	5.0	50	0	101	73-124	0			
1,2-Dichloroethane	51.91	5.0	50	0	104	76-120	0			
1,4-Dichlorobenzene	52.16	5.0	50	0	104	70-130	0			
2-Butanone	112.4	10	100	0	112	70-130	0			
Benzene	51.27	5.0	50	0	103	70-128	0			
Carbon tetrachloride	49.35	5.0	50	0	98.7	70-130	0			
Chlorobenzene	51.48	5.0	50	0	103	72-127	0			
Chloroform	51.43	5.0	50	0	103	70-130	0			
Tetrachloroethene	50.92	5.0	50	0	102	70-130	0			
Trichloroethene	51.27	5.0	50	0	103	72-129	0			
Vinyl chloride	52.32	5.0	50	0	105	70-130	0			
Surr: 1,2-Dichloroethane-d4	50.35	5.0	50	0	101	70-125	0			
Surr: 4-Bromofluorobenzene	49.12	5.0	50	0	98.2	72-125	0			
Surr: Dibromofluoromethane	50.2	5.0	50	0	100	71-125	0			
Surr: Toluene-d8	49.36	5.0	50	0	98.7	75-125	0			

MS		Sample ID: 1010451-01AMS			Units: µg/L		Analysis Date: 10/21/2010 09:45 PM			
Client ID: DAF		Run ID: VOA8_101021B			SeqNo: 2140997		Prep Date:		DF: 20	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	1121	100	1000	0	112	73-124	0			
1,2-Dichloroethane	1037	100	1000	0	104	76-120	0			
1,4-Dichlorobenzene	1015	100	1000	0	101	70-130	0			
2-Butanone	1694	200	2000	0	84.7	70-130	0			
Benzene	1103	100	1000	0	110	70-128	0			
Carbon tetrachloride	1087	100	1000	0	109	70-130	0			
Chlorobenzene	1039	100	1000	0	104	72-127	0			
Chloroform	1121	100	1000	0	112	70-130	0			
Tetrachloroethene	1091	100	1000	0	109	70-130	0			
Trichloroethene	1117	100	1000	0	112	72-129	0			
Vinyl chloride	1112	100	1000	0	111	70-130	0			
Surr: 1,2-Dichloroethane-d4	1022	100	1000	0	102	70-125	0			
Surr: 4-Bromofluorobenzene	1001	100	1000	0	100	72-125	0			
Surr: Dibromofluoromethane	1022	100	1000	0	102	71-125	0			
Surr: Toluene-d8	973.2	100	1000	0	97.3	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
Work Order: 1010451
Project: DAF

QC BATCH REPORT

Batch ID: R99432 Instrument ID VOA8 Method: SW1311/8260B

MSD Sample ID: 1010451-01AMSD Units: µg/L Analysis Date: 10/21/2010 10:08 PM

Client ID: DAF Run ID: VOA8_101021B SeqNo: 2140999 Prep Date: DF: 20

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	1124	100	1000	0	112	73-124	1121	0.24	20	
1,2-Dichloroethane	1023	100	1000	0	102	76-120	1037	1.35	20	
1,4-Dichlorobenzene	1012	100	1000	0	101	70-130	1015	0.266	20	
2-Butanone	1575	200	2000	0	78.8	70-130	1694	7.26	20	
Benzene	1089	100	1000	0	109	70-128	1103	1.25	20	
Carbon tetrachloride	1090	100	1000	0	109	70-130	1087	0.316	20	
Chlorobenzene	1035	100	1000	0	103	72-127	1039	0.407	20	
Chloroform	1091	100	1000	0	109	70-130	1121	2.69	20	
Tetrachloroethene	1073	100	1000	0	107	70-130	1091	1.65	20	
Trichloroethene	1112	100	1000	0	111	72-129	1117	0.414	20	
Vinyl chloride	1115	100	1000	0	111	70-130	1112	0.278	20	
Surr: 1,2-Dichloroethane-d4	1013	100	1000	0	101	70-125	1022	0.886	20	
Surr: 4-Bromofluorobenzene	1002	100	1000	0	100	72-125	1001	0.124	20	
Surr: Dibromofluoromethane	1021	100	1000	0	102	71-125	1022	0.0953	20	
Surr: Toluene-d8	963.2	100	1000	0	96.3	75-125	973.2	1.03	20	

The following samples were analyzed in this batch:

1010451-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
Work Order: 1010451
Project: DAF

QC BATCH REPORT

Batch ID: R99151 Instrument ID WetChem Method: SW9045B

LCS Sample ID: **WLCS-101910-R99151** Units: **pH Units** Analysis Date: **10/19/2010 10:00 A**
Client ID: Run ID: **WETCHEM_101019A** SeqNo: **2134881** Prep Date: DF: 1

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6	0.10	6	0	100	90-110	0			

DUP Sample ID: **1010463-01ADUP** Units: **pH Units** Analysis Date: **10/19/2010 10:00 A**
Client ID: Run ID: **WETCHEM_101019A** SeqNo: **2134907** Prep Date: DF: 1

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	10.34	0.10	0	0	0	0-0	10.35	0.0967	20	

The following samples were analyzed in this batch:

1010451-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
Work Order: 1010451
Project: DAF

QC BATCH REPORT

Batch ID: **R99167** Instrument ID **WetChem** Method: **SW1030**

DUP Sample ID: **1010383-01ADUP** Units: **no unit** Analysis Date: **10/19/2010 11:00 A**

Client ID: Run ID: **WETCHEM_101019C** SeqNo: **2135262** Prep Date: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ignitability, Solid	U	0	0	0	0		0	0		

The following samples were analyzed in this batch:

1010451-01A

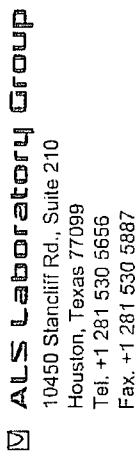
Client: Navajo Refining Company
Project: DAF
WorkOrder: 1010451

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
µg/L	Micrograms per Liter
mg/Kg	Milligrams per Kilogram
mg/L	Milligrams per Liter
no unit	
pH Units	



Chain of Custody Form

ALS Laboratory Group
3352 128th Ave.
Holland, MI 49424-9263
Tel: +1 616 399 6070
Fax: +1 616 399 6155

Page 1 of 1

Customer Information				Project Information				ALS Project Manager: <u>DAF</u> Parameter/Method Request for Analysis <u>VOAS</u>											
Purchase Order				Project Name				A											
Work Order				Project Number				B											
Company Name				Bill To Company				C											
Send Report To				Invoice Attn				D											
Address				P.O. Box 159				E											
City/State/Zip				Artesia, NM 88211				G											
Phone				(505) 748-3311				H											
Fax				(505) 746-5421				I											
e-Mail Address				dghoyer@SES-NM.com				J											
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	DAF	10-16-10	09:25	\$	NO	1	X	X	X	X									
2	Temp Blank																		
3	Trip Blank																		
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
Aaron Strange		Fed Ex		☒ Sid: 10 WK Days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour		☐ Level II Std QC ☐ Level III Std QC/Raw Data ☐ Level IV SW846/CLP ☐ Other / EDO	
Relinquished by: Aaron Strange		Received by: [Signature]		Cooler Temp: ☐ 2 WK Days ☐ 24 Hour		Cooler ID: ☐ Level II Std QC ☐ Level III Std QC/Raw Data ☐ Level IV SW846/CLP ☐ Other / EDO	
Relinquished by: Aaron Strange		Received by: [Signature]		Cooler Temp: ☐ 2 WK Days ☐ 24 Hour		Cooler ID: ☐ Level II Std QC ☐ Level III Std QC/Raw Data ☐ Level IV SW846/CLP ☐ Other / EDO	
Logged by (Laboratory):		Checked by (Laboratory):		Cooler Temp: ☐ 2 WK Days ☐ 24 Hour		Cooler ID: ☐ Level II Std QC ☐ Level III Std QC/Raw Data ☐ Level IV SW846/CLP ☐ Other / EDO	
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035		Time: 10-16-10 16:15		Time: 10-20-10 08:45		Time: 10-20-10 08:45	

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
2. Unless otherwise noted, a formal consent/assent provided by ALS Laboratory Group is not required.

2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

3. The Chain of Custody is a legal document. All information must be completed accurately.

ALS Environmental

Sample Receipt Checklist

Client Name: **NAVAJO REFINING**

Date/Time Received: **12-Oct-10 08:45**

Work Order: **1010451**

Received by: **RSZ**

Checklist completed by Jay Lynn F Thibault 13-Oct-10
eSignature Date

Reviewed by: Jay Lynn F Thibault 13-Oct-10
eSignature Date

Matrices: soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	2.6 002		
Cooler(s)/Kit(s):	3410		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

1010451



ALS Environmental

10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

CUSTODY SEAL

Date: 10-11-2010 Time: 1015
Name: Aaron Strahan
Company: Navajo Pottery Co.

Seal Broken By:

RG
10/210

ALS Group USA, Corp

Date: 21-Oct-10

Client: ALS Environmental

Project: 1010451

Work Order: 1010375

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1010375-01	1010451-01B	Solid		10/11/2010 09:25	10/14/2010 09:45	☐

Client: ALS Environmental**Project:** 1010451**WorkOrder:** 1010375

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
SQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution

<u>Units Reported</u>	<u>Description</u>
mg/Kg	Milligrams per Kilogram

ALS Group USA, Corp

Date: 21-Oct-10

Client: ALS Environmental
Project: 1010451
Sample ID: 1010451-01B
Collection Date: 10/11/2010 09:25 AM

Work Order: 1010375
Lab ID: 1010375-01
Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
CYANIDE, REACTIVE			SW7.3.3.2			Analyst: EE
Cyanide, Reactive	ND		40.0	mg/Kg	1	10/14/2010 11:00 AM
SULFIDE, REACTIVE			SW7.3.4.2			Analyst: EE
Sulfide, Reactive	ND		40.0	mg/Kg	1	10/14/2010 11:00 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 21-Oct-10

Client: ALS Environmental
 Work Order: 1010375
 Project: 1010451

QC BATCH REPORT

Batch ID: R82409 Instrument ID WETCHEM Method: SW7.3.4.2

MBLK Sample ID: WBLKW1-101210-R82409 Units: mg/Kg Analysis Date: 10/12/2010 11:00 AM

Client ID: Run ID: WETCHEM_1010121 SeqNo: 1447838 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide, Reactive	ND		40							

The following samples were analyzed in this batch:

1010375-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ALS Environmental
Work Order: 1010375
Project: 1010451

QC BATCH REPORT

Batch ID: **R82410** Instrument ID **WETCHEM** Method: **SW7.3.3.2**

MBLK Sample ID: **WBLKW1-101210-R82410** Units: **mg/Kg** Analysis Date: **10/12/2010 11:00 AM**

Client ID: Run ID: **WETCHEM_101012J** SeqNo: **1447841** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	ND	40								

LCS Sample ID: **WLCSW1-101210-R82410** Units: **mg/Kg** Analysis Date: **10/12/2010 11:00 AM**

Client ID: Run ID: **WETCHEM_101012J** SeqNo: **1447842** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	234.9	40	250	0	94	75-125	0			

LCSD Sample ID: **WLCSDW1-101210-R82410** Units: **mg/Kg** Analysis Date: **10/12/2010 11:00 AM**

Client ID: Run ID: **WETCHEM_101012J** SeqNo: **1447847** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	234.9	40	250	0	94	75-125	234.9	0	35	

MS Sample ID: **1010215-01A MS** Units: **mg/Kg** Analysis Date: **10/12/2010 11:00 AM**

Client ID: Run ID: **WETCHEM_101012J** SeqNo: **1447845** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	249.6	40	250	0	99.8	50-150	0			

MSD Sample ID: **1010215-01A MSD** Units: **mg/Kg** Analysis Date: **10/12/2010 11:00 AM**

Client ID: Run ID: **WETCHEM_101012J** SeqNo: **1447846** Prep Date: DF: **1**

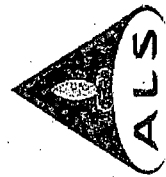
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	249.6	40	250	0	99.8	50-150	249.6	0	35	

The following samples were analyzed in this batch:

1010375-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

101037S



Subcontractor:
ALS Laboratory Group
3352 128th Ave.
Holland, MI 49424

TEL: (616) 399-6070
FAX: (616) 399-6185
Acct #:

CHAIN-OF-CUSTODY RECORD

Date: 13-Oct-10
COC ID: 9489
Due Date: 21-Oct-10

Page 1 of 1

Customer Information		Project Information		Parameter/Method Request for Analysis																			
Purchase Order	10-2119381	Project Name	1010451	A		B		C		D		E		F		G		H		I		J	
Work Order		Project Number		A		B		C		D		E		F		G		H		I		J	
Company Name	ALS Group USA, Corp.	Bill To Company	ALS Group USA, Corp.	A		B		C		D		E		F		G		H		I		J	
Send Report To	JayLynn F Thibault	Inv Attn	Accounts Payable	A		B		C		D		E		F		G		H		I		J	
Address	10450 Standliff Rd, Suite 210	Address	10450 Standliff Rd, Suite 210	A		B		C		D		E		F		G		H		I		J	
City/State/Zip	Houston, Texas 77099-4338	City/State/Zip	Houston, Texas 77099-4338	A		B		C		D		E		F		G		H		I		J	
Phone	(281) 530-5656	Phone	(281) 530-5656	A		B		C		D		E		F		G		H		I		J	
Fax	(281) 530-5887	Fax	(281) 530-5887	A		B		C		D		E		F		G		H		I		J	
eMail Address	jaylynn.thibault@alsenviro.com	eMail CC	mary.knowles@alsglobal.com	A		B		C		D		E		F		G		H		I		J	
Sample ID	1010451-01B (DAF)	Matrix	Solid	A		B		C		D		E		F		G		H		I		J	
		Collection Date	10/11/2010 9:25	A		B		C		D		E		F		G		H		I		J	
		Bottle	(1) 20ZGNEAT	A		B		C		D		E		F		G		H		I		J	

Comments:

Please analyze for Reactive Cyanide and Reactive Sulfide. Report is due on 10/21/10. Send report to Jaylynn Thibault, jaylynn.thibault@alsglobal.com, and CC: results to Glenda Ramos, glenda.ramos@alsglobal.com and Mary Knowles, mary.knowles@alsglobal.com

Relinquished by:	Date/Time: 10/11/10 10:45	Received by:	Date/Time: 10/14/10 09:45
Relinquished by:	Date/Time:	Received by:	Date/Time:
Cooler IDs		Report/QC Level	

4.2-4.4%

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **ALS - HOUSTON**

Date/Time Received: **14-Oct-10 09:45**

Work Order: **1010375**

Received by: **DS**

Checklist completed by Diane Shaw
eSignature

14-Oct-10
Date

Reviewed by: Bill Carey
eSignature

15-Oct-10
Date

Matrices: Solid

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	<u>4.2-4.4 c</u>		
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:			
Login Notes:			

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

ORIGIN ID: JGQA (281) 530-5656
SHIPPING DEPT
ALS LABORATORY GROUP
10450 STANCLIFF
SUITE 210
HOUSTON, TX 77099
UNITED STATES US

SHIP DATE: 13OCT10
ACTWGT: 30.0 LB
CAD: 300130/CAFE2468

BILL SENDER

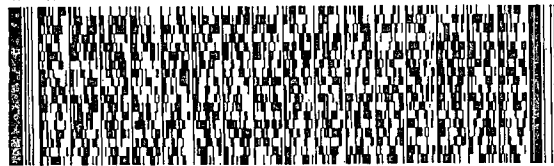
TO RECEIVING
ALS ENVIRONMENTAL
3352 128TH AVE.

HOLLAND MI 49424

(616) 399-6070

DEPT: SUB

1010101007220124



FedEx
Express



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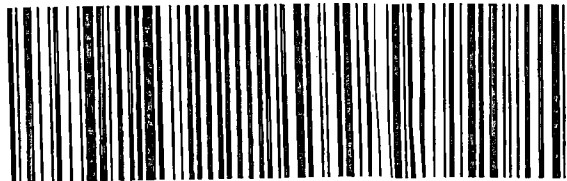
THU - 14 OCT A4
PRIORITY OVERNIGHT

TRK# 4340 2161 5441
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Part # 155148-434 NRT V3 12-09



505C1/25EF/DA47

Chavez, Carl J, EMNRD

From: Strange, Aaron [aaron.strange@hollycorp.com]
Sent: Thursday, October 07, 2010 3:30 PM
To: Kim Flowers; Chavez, Carl J, EMNRD
Subject: Request for waste approval
Attachments: Cooling Tower Trash and Debris.pdf

Kim,

Please see the attached request for waste approval.

Thanks,
Aaron

Aaron Strange
Environmental Technician, Senior

Environmental Department
Navajo Refining Co, LLC
Artesia NM
Off: (575) 746-5468
Cell: (575) 703-5057

CONFIDENTIALITY NOTICE: This e-mail, and any attachments, may contain information that is privileged, proprietary and/or confidential. If you received this message in error, please advise the sender immediately by reply e-mail and do not retain any paper or electronic copies of this message or any attachments. Unless expressly stated, nothing contained in this message should be construed as a digital or electronic signature or a commitment to a binding agreement.

**CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL**

COMPANY / GENERATOR: Navajo Refining Co.

ADDRESS: 501 E Main Artesia NM 88210

GENERATING SITE: Artesia Plant

COUNTY Eddy STATE NM
TYPE OF WASTE: Trash & Debris

ESTIMATED VOLUME: 1050 yds

GENERATING PROCESS: Demolition of old Cooling Towers
(Y-4, Y-5, Y-6, and Y-7)

REMARKS: _____

NMOCDFACILITY: CRI

TRUCKING COMPANY: S Brothers

As a condition of acceptance for disposal, I hereby certify that this waste is A non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AGENT: Aaron Strange
SIGNATURE

NAME: Aaron Strange
PRINTED

ADDRESS: 501 E Main Artesia NM
88210

DATE: 10-7-10

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised March 12, 2007

*Surface Waste Management Facility
Operator
and Generator shall maintain and make this
documentation available for Division
inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address:
Navajo Refining Co.

2. Originating Site:
Artesia Plant

3. Location of Material (Street Address, City, State or ULSTR):
501 E Main Artesia NM

4. Source and Description of Waste:
Trash and debris from demolition of old cooling towers (Y-4, Y-5, Y-6, and Y-7).

Estimated Volume 1050 yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) yd³ / bbls

5. **GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS**
I, Aaron Strange, representative or authorized agent for Navajo Refining Co. do hereby
certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988
regulatory determination, the above described waste is: (Check the appropriate classification)

☐ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-
exempt waste. *Operator Use Only: Waste Acceptance Frequency* ☐ Monthly ☐ Weekly ☐ Per Load

☒ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by
characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261,
subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check
the appropriate items)

☐ MSDS Information ☒ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, , representative for do hereby certify that
representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples
have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results
of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of
19.15.36 NMAC.

5. Transporter:
S Brothers

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #:

Address of Facility:

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☐ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☐ APPROVED

☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME: _____

TITLE: _____

DATE: _____

SIGNATURE: _____
Surface Waste Management Facility Authorized Agent

TELEPHONE NO.: _____

ALS Environmental

Date: 05-Oct-10

Client: Navajo Refining Company

Project: TCLP Parameters

Sample ID: Y-7

Collection Date: 9/15/2010 08:55 AM

Work Order: 1009499

Lab ID: 1009499-01

Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY			SW7470			
Mercury	ND		0.000200	mg/L	1	9/27/2010 04:16 PM
TCLP METALS			SW1311/6020			
Arsenic	2.31		0.0500	mg/L	10	9/23/2010 10:47 AM
Barium	0.206		0.0500	mg/L	10	9/23/2010 10:47 AM
Cadmium	ND		0.0500	mg/L	10	9/23/2010 10:47 AM
Chromium	1.41		0.0500	mg/L	10	9/23/2010 10:47 AM
Lead	ND		0.0500	mg/L	10	9/23/2010 10:47 AM
Selenium	ND		0.0500	mg/L	10	9/23/2010 10:47 AM
Silver	ND		0.0500	mg/L	10	9/23/2010 10:47 AM
TCLP SEMIVOLATILES			SW1311/8270			
2,4,5-Trichlorophenol	ND		0.0050	mg/L	1	9/22/2010 04:45 PM
2,4,6-Trichlorophenol	ND		0.0050	mg/L	1	9/22/2010 04:45 PM
2,4-Dinitrotoluene	ND		0.0050	mg/L	1	9/22/2010 04:45 PM
Cresols, Total	ND		0.015	mg/L	1	9/22/2010 04:45 PM
Hexachlorobenzene	ND		0.0050	mg/L	1	9/22/2010 04:45 PM
Hexachlorobutadiene	ND		0.0050	mg/L	1	9/22/2010 04:45 PM
Hexachloroethane	ND		0.0050	mg/L	1	9/22/2010 04:45 PM
Nitrobenzene	ND		0.0050	mg/L	1	9/22/2010 04:45 PM
Pentachlorophenol	ND		0.0050	mg/L	1	9/22/2010 04:45 PM
Pyridine	ND		0.0050	mg/L	1	9/22/2010 04:45 PM
Surr: 2,4,6-Tribromophenol	84.9		42-124	%REC	1	9/22/2010 04:45 PM
Surr: 2-Fluorobiphenyl	72.7		48-120	%REC	1	9/22/2010 04:45 PM
Surr: 2-Fluorophenol	68.3		20-120	%REC	1	9/22/2010 04:45 PM
Surr: 4-Terphenyl-d14	64.3		51-135	%REC	1	9/22/2010 04:45 PM
Surr: Nitrobenzene-d5	71.7		41-120	%REC	1	9/22/2010 04:45 PM
Surr: Phenol-d6	70.7		20-120	%REC	1	9/22/2010 04:45 PM
TCLP VOLATILES			SW1311/8260B			
1,1-Dichloroethene	ND		0.10	mg/L	20	9/21/2010 02:44 PM
1,2-Dichloroethane	ND		0.10	mg/L	20	9/21/2010 02:44 PM
1,4-Dichlorobenzene	ND		0.10	mg/L	20	9/21/2010 02:44 PM
2-Butanone	ND		0.20	mg/L	20	9/21/2010 02:44 PM
Benzene	ND		0.10	mg/L	20	9/21/2010 02:44 PM
Carbon tetrachloride	ND		0.10	mg/L	20	9/21/2010 02:44 PM
Chlorobenzene	ND		0.10	mg/L	20	9/21/2010 02:44 PM
Chloroform	ND		0.10	mg/L	20	9/21/2010 02:44 PM
Tetrachloroethene	ND		0.10	mg/L	20	9/21/2010 02:44 PM
Trichloroethene	ND		0.10	mg/L	20	9/21/2010 02:44 PM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Oct-10

Client: Navajo Refining Company

Project: TCLP Parameters

Work Order: 1009499

Sample ID: Y-7

Lab ID: 1009499-01

Collection Date: 9/15/2010 08:55 AM

Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Vinyl chloride	ND		0.10	mg/L	20	9/21/2010 02:44 PM
Surr: 1,2-Dichloroethane-d4	99.1		70-125	%REC	20	9/21/2010 02:44 PM
Surr: 4-Bromofluorobenzene	93.3		72-125	%REC	20	9/21/2010 02:44 PM
Surr: Dibromofluoromethane	99.2		71-125	%REC	20	9/21/2010 02:44 PM
Surr: Toluene-d8	99.8		75-125	%REC	20	9/21/2010 02:44 PM
REACTIVE CYANIDE			SW-846			Analyst: HN
Reactive Cyanide	ND		40.0	mg/Kg	1	9/27/2010 09:00 AM
REACTIVE SULFIDE			SW-846			Analyst: HN
Reactive Sulfide	ND		40.0	mg/Kg	1	9/27/2010 09:00 AM
PH			SW9045B			Analyst: JLC
pH	8.55		0.100	pH Units	1	9/27/2010 12:00 PM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Oct-10

Client: Navajo Refining Company
Project: TCLP Parameters
Sample ID: Y-6
Collection Date: 9/15/2010 08:59 AM

Work Order: 1009499
Lab ID: 1009499-02
Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY						
Mercury	ND		SW7470 0.000200	mg/L	Prep Date: 9/27/2010 1	Analyst: JCJ 9/27/2010 04:18 PM
TCLP METALS						
Arsenic	0.577		SW1311/6020 0.0500	mg/L	Prep Date: 9/22/2010 10	Analyst: ALR 9/23/2010 10:52 AM
Barium	0.163		0.0500	mg/L	10	9/23/2010 10:52 AM
Cadmium	ND		0.0500	mg/L	10	9/23/2010 10:52 AM
Chromium	1.14		0.0500	mg/L	10	9/23/2010 10:52 AM
Lead	ND		0.0500	mg/L	10	9/23/2010 10:52 AM
Selenium	ND		0.0500	mg/L	10	9/23/2010 10:52 AM
Silver	ND		0.0500	mg/L	10	9/23/2010 10:52 AM
TCLP SEMIVOLATILES						
2,4,5-Trichlorophenol	ND		SW1311/8270 0.0050	mg/L	Prep Date: 9/22/2010 1	Analyst: ACN 9/22/2010 05:07 PM
2,4,6-Trichlorophenol	ND		0.0050	mg/L	1	9/22/2010 05:07 PM
2,4-Dinitrotoluene	ND		0.0050	mg/L	1	9/22/2010 05:07 PM
Cresols, Total	ND		0.015	mg/L	1	9/22/2010 05:07 PM
Hexachlorobenzene	ND		0.0050	mg/L	1	9/22/2010 05:07 PM
Hexachlorobutadiene	ND		0.0050	mg/L	1	9/22/2010 05:07 PM
Hexachloroethane	ND		0.0050	mg/L	1	9/22/2010 05:07 PM
Nitrobenzene	ND		0.0050	mg/L	1	9/22/2010 05:07 PM
Pentachlorophenol	ND		0.0050	mg/L	1	9/22/2010 05:07 PM
Pyridine	ND		0.0050	mg/L	1	9/22/2010 05:07 PM
Surr: 2,4,6-Tribromophenol	82.6		42-124	%REC	1	9/22/2010 05:07 PM
Surr: 2-Fluorobiphenyl	72.5		48-120	%REC	1	9/22/2010 05:07 PM
Surr: 2-Fluorophenol	65.8		20-120	%REC	1	9/22/2010 05:07 PM
Surr: 4-Terphenyl-d14	66.4		51-135	%REC	1	9/22/2010 05:07 PM
Surr: Nitrobenzene-d5	69.9		41-120	%REC	1	9/22/2010 05:07 PM
Surr: Pherol-d6	70.4		20-120	%REC	1	9/22/2010 05:07 PM
TCLP VOLATILES						
1,1-Dichloroethene	ND		SW1311/8260B 0.10	mg/L	Prep Date: 9/20/2010 20	Analyst: AKP 9/21/2010 03:11 PM
1,2-Dichloroethane	ND		0.10	mg/L	20	9/21/2010 03:11 PM
1,4-Dichlorobenzene	ND		0.10	mg/L	20	9/21/2010 03:11 PM
2-Butanone	ND		0.20	mg/L	20	9/21/2010 03:11 PM
Benzene	ND		0.10	mg/L	20	9/21/2010 03:11 PM
Carbon tetrachloride	ND		0.10	mg/L	20	9/21/2010 03:11 PM
Chlorobenzene	ND		0.10	mg/L	20	9/21/2010 03:11 PM
Chloroform	ND		0.10	mg/L	20	9/21/2010 03:11 PM
Tetrachloroethene	ND		0.10	mg/L	20	9/21/2010 03:11 PM
Trichloroethene	ND		0.10	mg/L	20	9/21/2010 03:11 PM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Oct-10

Client: Navajo Refining Company

Project: TCLP Parameters

Work Order: 1009499

Sample ID: Y-6

Lab ID: 1009499-02

Collection Date: 9/15/2010 08:59 AM

Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Vinyl chloride	ND		0.10	mg/L	20	9/21/2010 03:11 PM
Surr: 1,2-Dichloroethane-d4	99.6		70-125	%REC	20	9/21/2010 03:11 PM
Surr: 4-Bromofluorobenzene	95.1		72-125	%REC	20	9/21/2010 03:11 PM
Surr: Dibromofluoromethane	99.0		71-125	%REC	20	9/21/2010 03:11 PM
Surr: Toluene-d8	101		75-125	%REC	20	9/21/2010 03:11 PM
REACTIVE CYANIDE			SW-846			Analyst: HN
Reactive Cyanide	ND		40.0	mg/Kg	1	9/27/2010 09:00 AM
REACTIVE SULFIDE			SW-846			Analyst: HN
Reactive Sulfide	ND		40.0	mg/Kg	1	9/27/2010 09:00 AM
PH			SW9045B			Analyst: JLC
pH	6.50		0.100	pH Units	1	9/27/2010 12:00 PM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Oct-10

Client: Navajo Refining Company

Project: TCLP Parameters

Work Order: 1009499

Sample ID: Y-4

Lab ID: 1009499-03

Collection Date: 9/15/2010 09:38 AM

Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY			SW7470		Prep Date: 9/27/2010	Analyst: JCJ
Mercury	ND		0.000200	mg/L	1	9/27/2010 04:24 PM
TCLP METALS			SW1311/6020		Prep Date: 9/22/2010	Analyst: ALR
Arsenic	0.551		0.0500	mg/L	10	9/23/2010 10:58 AM
Barium	0.140		0.0500	mg/L	10	9/23/2010 10:58 AM
Cadmium	ND		0.0500	mg/L	10	9/23/2010 10:58 AM
Chromium	0.820		0.0500	mg/L	10	9/23/2010 10:58 AM
Lead	ND		0.0500	mg/L	10	9/23/2010 10:58 AM
Selenium	ND		0.0500	mg/L	10	9/23/2010 10:58 AM
Silver	ND		0.0500	mg/L	10	9/23/2010 10:58 AM
TCLP SEMIVOLATILES			SW1311/8270		Prep Date: 9/22/2010	Analyst: ACN
2,4,5-Trichlorophenol	ND		0.0050	mg/L	1	9/22/2010 05:30 PM
2,4,6-Trichlorophenol	ND		0.0050	mg/L	1	9/22/2010 05:30 PM
2,4-Dinitrotoluene	ND		0.0050	mg/L	1	9/22/2010 05:30 PM
Cresols, Total	ND		0.015	mg/L	1	9/22/2010 05:30 PM
Hexachlorobenzene	ND		0.0050	mg/L	1	9/22/2010 05:30 PM
Hexachlorobutadiene	ND		0.0050	mg/L	1	9/22/2010 05:30 PM
Hexachloroethane	ND		0.0050	mg/L	1	9/22/2010 05:30 PM
Nitrobenzene	ND		0.0050	mg/L	1	9/22/2010 05:30 PM
Pentachlorophenol	ND		0.0050	mg/L	1	9/22/2010 05:30 PM
Pyridine	ND		0.0050	mg/L	1	9/22/2010 05:30 PM
Surr: 2,4,6-Tribromophenol	86.9		42-124	%REC	1	9/22/2010 05:30 PM
Surr: 2-Fluorobiphenyl	72.4		48-120	%REC	1	9/22/2010 05:30 PM
Surr: 2-Fluorophenol	69.3		20-120	%REC	1	9/22/2010 05:30 PM
Surr: 4-Terphenyl-d14	69.0		51-135	%REC	1	9/22/2010 05:30 PM
Surr: Nitrobenzene-d5	72.8		41-120	%REC	1	9/22/2010 05:30 PM
Surr: Phenol-d6	74.6		20-120	%REC	1	9/22/2010 05:30 PM
TCLP VOLATILES			SW1311/8260B		Prep Date: 9/20/2010	Analyst: AKP
1,1-Dichloroethene	ND		0.10	mg/L	20	9/21/2010 03:38 PM
1,2-Dichloroethane	ND		0.10	mg/L	20	9/21/2010 03:38 PM
1,4-Dichlorobenzene	ND		0.10	mg/L	20	9/21/2010 03:38 PM
2-Butanone	ND		0.20	mg/L	20	9/21/2010 03:38 PM
Benzene	ND		0.10	mg/L	20	9/21/2010 03:38 PM
Carbon tetrachloride	ND		0.10	mg/L	20	9/21/2010 03:38 PM
Chlorobenzene	ND		0.10	mg/L	20	9/21/2010 03:38 PM
Chloroform	ND		0.10	mg/L	20	9/21/2010 03:38 PM
Tetrachloroethene	ND		0.10	mg/L	20	9/21/2010 03:38 PM
Trichloroethene	ND		0.10	mg/L	20	9/21/2010 03:38 PM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Oct-10

Client: Navajo Refining Company

Project: TCLP Parameters

Work Order: 1009499

Sample ID: Y-4

Lab ID: 1009499-03

Collection Date: 9/15/2010 09:38 AM

Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Vinyl chloride	ND		0.10	mg/L	20	9/21/2010 03:38 PM
Surr: 1,2-Dichloroethane-d4	99.6		70-125	%REC	20	9/21/2010 03:38 PM
Surr: 4-Bromofluorobenzene	96.2		72-125	%REC	20	9/21/2010 03:38 PM
Surr: Dibromofluoromethane	99.6		71-125	%REC	20	9/21/2010 03:38 PM
Surr: Toluene-d8	99.1		75-125	%REC	20	9/21/2010 03:38 PM
REACTIVE CYANIDE			SW-846			Analyst: HN
Reactive Cyanide	ND		40.0	mg/Kg	1	9/27/2010 09:00 AM
REACTIVE SULFIDE			SW-846			Analyst: HN
Reactive Sulfide	ND		40.0	mg/Kg	1	9/27/2010 09:00 AM
PH			SW9045B			Analyst: JLC
pH	7.73		0.100	pH Units	1	9/27/2010 12:00 PM

Note: See: Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Oct-10

Client: Navajo Refining Company

Project: TCLP Parameters

Work Order: 1009499

Sample ID: Y-5

Lab ID: 1009499-04

Collection Date: 9/15/2010 09:41 AM

Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY			SW7470		Prep Date: 9/27/2010	Analyst: JCJ
Mercury	ND		0.000200	mg/L	1	9/27/2010 04:26 PM
TCLP METALS			SW1311/6020		Prep Date: 9/22/2010	Analyst: ALR
Arsenic	0.310		0.0500	mg/L	10	9/23/2010 11:03 AM
Barium	0.139		0.0500	mg/L	10	9/23/2010 11:03 AM
Cadmium	ND		0.0500	mg/L	10	9/23/2010 11:03 AM
Chromium	1.28		0.0500	mg/L	10	9/23/2010 11:03 AM
Lead	ND		0.0500	mg/L	10	9/23/2010 11:03 AM
Selenium	ND		0.0500	mg/L	10	9/23/2010 11:03 AM
Silver	ND		0.0500	mg/L	10	9/23/2010 11:03 AM
TCLP SEMIVOLATILES			SW1311/8270		Prep Date: 9/22/2010	Analyst: ACN
2,4,5-Trichlorophenol	ND		0.0050	mg/L	1	9/22/2010 05:52 PM
2,4,6-Trichlorophenol	ND		0.0050	mg/L	1	9/22/2010 05:52 PM
2,4-Dinitrotoluene	ND		0.0050	mg/L	1	9/22/2010 05:52 PM
Cresols, Total	ND		0.015	mg/L	1	9/22/2010 05:52 PM
Hexachlorobenzene	ND		0.0050	mg/L	1	9/22/2010 05:52 PM
Hexachlorobutadiene	ND		0.0050	mg/L	1	9/22/2010 05:52 PM
Hexachloroethane	ND		0.0050	mg/L	1	9/22/2010 05:52 PM
Nitrobenzene	ND		0.0050	mg/L	1	9/22/2010 05:52 PM
Pentachlorophenol	ND		0.0050	mg/L	1	9/22/2010 05:52 PM
Pyridine	ND		0.0050	mg/L	1	9/22/2010 05:52 PM
Surr: 2,4,6-Tribromophenol	92.4		42-124	%REC	1	9/22/2010 05:52 PM
Surr: 2-Fluorobiphenyl	69.8		48-120	%REC	1	9/22/2010 05:52 PM
Surr: 2-Fluorophenol	69.3		20-120	%REC	1	9/22/2010 05:52 PM
Surr: 4-Terphenyl-d14	69.6		51-135	%REC	1	9/22/2010 05:52 PM
Surr: Nitrobenzene-d5	71.3		41-120	%REC	1	9/22/2010 05:52 PM
Surr: Phenol-d6	82.3		20-120	%REC	1	9/22/2010 05:52 PM
TCLP VOLATILES			SW1311/8260B		Prep Date: 9/20/2010	Analyst: AKP
1,1-Dichloroethene	ND		0.10	mg/L	20	9/21/2010 04:05 PM
1,2-Dichloroethane	ND		0.10	mg/L	20	9/21/2010 04:05 PM
1,4-Dichlorobenzene	ND		0.10	mg/L	20	9/21/2010 04:05 PM
2-Butanone	ND		0.20	mg/L	20	9/21/2010 04:05 PM
Benzene	ND		0.10	mg/L	20	9/21/2010 04:05 PM
Carbon tetrachloride	ND		0.10	mg/L	20	9/21/2010 04:05 PM
Chlorobenzene	ND		0.10	mg/L	20	9/21/2010 04:05 PM
Chloroform	ND		0.10	mg/L	20	9/21/2010 04:05 PM
Tetrachloroethene	ND		0.10	mg/L	20	9/21/2010 04:05 PM
Trichloroethene	ND		0.10	mg/L	20	9/21/2010 04:05 PM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 05-Oct-10

Client: Navajo Refining Company

Project: TCLP Parameters

Sample ID: Y-5

Collection Date: 9/15/2010 09:41 AM

Work Order: 1009499

Lab ID: 1009499-04

Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Vinyl chloride	ND		0.10	mg/L	20	9/21/2010 04:05 PM
Surr: 1,2-Dichloroethane-d4	98.6		70-125	%REC	20	9/21/2010 04:05 PM
Surr: 4-Bromofluorobenzene	94.2		72-125	%REC	20	9/21/2010 04:05 PM
Surr: Dibromofluoromethane	98.1		71-125	%REC	20	9/21/2010 04:05 PM
Surr: Toluene-d8	99.8		75-125	%REC	20	9/21/2010 04:05 PM
REACTIVE CYANIDE			SW-846			Analyst: HN
Reactive Cyanide	ND		40.0	mg/Kg	1	9/27/2010 09:00 AM
REACTIVE SULFIDE			SW-846			Analyst: HN
Reactive Sulfide	ND		40.0	mg/Kg	1	9/27/2010 09:00 AM
PH			SW9045B			Analyst: JLC
pH	8.03		0.100	pH Units	1	9/27/2010 12:00 PM

Note: See: Qualifiers Page for a list of qualifiers and their explanation.

[illegible]

ote: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.

1. Any changes must be made in writing once samples and CEC form have been submitted to ALS Laboratory Group.
2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.

3. The Chain of Custody is a legal document. All information must be completed accurately.

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Chavez, Carl J, EMNRD

From: Strange, Aaron [aaron.strange@hollycorp.com]
Sent: Tuesday, May 18, 2010 10:54 AM
To: Kim Flowers; Chavez, Carl J, EMNRD
Subject: Request for waste approval
Attachments: Excavated soil south of T-115.pdf

Kim,

Please see the attachment requesting the approval of soil excavated from the south side of Tank T-115 at the Artesia Plant.

Thanks,

Aaron Strange
Environmental Technician, Senior

Environmental Department
Navajo Refining Co, LLC
Artesia NM
Off: (575) 746-5468
Cell: (575) 703-5057

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CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL

COMPANY / GENERATOR: Navajo Refining Co.

ADDRESS: 501 E Main Artesia NM 88210

GENERATING SITE: Artesia Plant

COUNTY Eddy STATE NM
TYPE OF WASTE: Excavated soil/Contaminated Soil

ESTIMATED VOLUME: 25 yds

GENERATING PROCESS: Excavated Soil south of
Tank T-115

REMARKS: _____

NMOCD FACILITY: CRI

TRUCKING COMPANY: S Brothers

As a condition of acceptance for disposal, I hereby certify that this waste is
A non-exempt waste as defined by the Environmental Protection Agency's
(EPA) July 1988 Regulatory Determination. To my knowledge, this waste
will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the
nature as non-hazardous. I further certify that to my knowledge "hazardous
or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C
and D, has not been added or mixed with the waste so as to make the resultant
mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections
2613.

AGENT: Aaron Strange
SIGNATURE

NAME: Aaron Strange
PRINTED

ADDRESS: 501 E Main Artesia NM
88210

DATE: 5-18-2010

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised March 12, 2007

*Surface Waste Management Facility
Operator
and Generator shall maintain and make this
documentation available for Division
inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address: Navajo Refining Co.
2. Originating Site: Artesia Plant
3. Location of Material (Street Address, City, State or ULSTR): 501 E Main Artesia NM
4. Source and Description of Waste: Excavated soil south of tank T-115.

Estimated Volume 25 yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) _____ yd³ / bbls

5. **GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS**
I, Aaron Strange, representative or authorized agent for Navajo Refining Co. do hereby
certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988
regulatory determination, the above described waste is: (Check the appropriate classification)

☐ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-
exempt waste. Operator Use Only: Waste Acceptance Frequency ☐ Monthly ☐ Weekly ☐ Per Load

☒ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by
characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261,
subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check
the appropriate items)

☐ MSDS Information ☒ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS
I, _____, representative for _____ do hereby certify that
representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples
have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results
of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of
19.15.36 NMAC.

5. Transporter:
S Brothers

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #:

Address of Facility:

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☐ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☐ APPROVED

☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME: _____

TITLE: _____

DATE: _____

SIGNATURE: _____
Surface Waste Management Facility Authorized Agent

TELEPHONE NO.: _____

ALS Laboratory Group

Date: 03-May-10

Client: Navajo Refining Company

Project: Disposal

Work Order: 1004372

Sample ID: T-115-Esc Soil

Lab ID: 1004372-01

Collection Date: 4/14/2010 02:53 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY						
Mercury	ND		SW7470 0.000200	mg/L	Prep Date: 4/20/2010 1	Analyst: JCJ 4/20/2010 01:42 PM
TCLP METALS						
Arsenic	ND		SW1311/6020 0.0500	mg/L	Prep Date: 4/19/2010 10	Analyst: SKS 4/19/2010 04:09 PM
Barium	0.471		0.0500	mg/L	10	4/19/2010 04:09 PM
Cadmium	ND		0.0500	mg/L	10	4/19/2010 04:09 PM
Chromium	ND		0.0500	mg/L	10	4/19/2010 04:09 PM
Lead	ND		0.0500	mg/L	10	4/19/2010 04:09 PM
Selenium	ND		0.0500	mg/L	10	4/19/2010 04:09 PM
Silver	ND		0.0500	mg/L	10	4/19/2010 04:09 PM
TCLP SEMIVOLATILES						
2,4,5-Trichlorophenol	ND		SW1311/8270 5.0	µg/L	Prep Date: 4/21/2010 1	Analyst: ACN 4/21/2010 08:22 PM
2,4,6-Trichlorophenol	ND		5.0	µg/L	1	4/21/2010 08:22 PM
2,4-Dinitrotoluene	ND		5.0	µg/L	1	4/21/2010 08:22 PM
Cresols, Total	ND		15	µg/L	1	4/21/2010 08:22 PM
Hexachlorobenzene	ND		5.0	µg/L	1	4/21/2010 08:22 PM
Hexachlorobutadiene	ND		5.0	µg/L	1	4/21/2010 08:22 PM
Hexachloroethane	ND		5.0	µg/L	1	4/21/2010 08:22 PM
Nitrobenzene	ND		5.0	µg/L	1	4/21/2010 08:22 PM
Pentachlorophenol	ND		5.0	µg/L	1	4/21/2010 08:22 PM
Pyridine	ND		5.0	µg/L	1	4/21/2010 08:22 PM
Surr: 2,4,6-Tribromophenol	71.8		42-124	%REC	1	4/21/2010 08:22 PM
Surr: 2-Fluorobiphenyl	84.3		48-120	%REC	1	4/21/2010 08:22 PM
Surr: 2-Fluorophenol	68.8		20-120	%REC	1	4/21/2010 08:22 PM
Surr: 4-Terphenyl-d14	85.7		51-135	%REC	1	4/21/2010 08:22 PM
Surr: Nitrobenzene-d5	73.8		41-120	%REC	1	4/21/2010 08:22 PM
Surr: Phenol-d6	69.8		20-120	%REC	1	4/21/2010 08:22 PM
TCLP VOLATILES						
1,1-Dichloroethene	ND		SW1311/8260B 100	µg/L	Prep Date: 4/16/2010 20	Analyst: HLBW 4/30/2010 08:54 AM
1,2-Dichloroethane	ND		100	µg/L	20	4/30/2010 08:54 AM
1,4-Dichlorobenzene	ND		100	µg/L	20	4/30/2010 08:54 AM
2-Butanone	ND		200	µg/L	20	4/30/2010 08:54 AM
Benzene	ND		100	µg/L	20	4/30/2010 08:54 AM
Carbon tetrachloride	ND		100	µg/L	20	4/30/2010 08:54 AM
Chlorobenzene	ND		100	µg/L	20	4/30/2010 08:54 AM
Chloroform	ND		100	µg/L	20	4/30/2010 08:54 AM
Tetrachloroethene	ND		100	µg/L	20	4/30/2010 08:54 AM
Trichloroethene	ND		100	µg/L	20	4/30/2010 08:54 AM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: 03-May-10

Client: Navajo Refining Company

Project: Disposal

Work Order: 1004372

Sample ID: T-115-Esc Soil

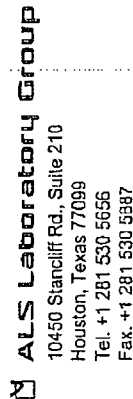
Lab ID: 1004372-01

Collection Date: 4/14/2010 02:53 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Vinyl chloride	ND		100	µg/L	20	4/30/2010 08:54 AM
Surr: 1,2-Dichloroethane-d4	96.8		70-125	%REC	20	4/30/2010 08:54 AM
Surr: 4-Bromofluorobenzene	98.7		72-125	%REC	20	4/30/2010 08:54 AM
Surr: Dibromofluoromethane	95.9		71-125	%REC	20	4/30/2010 08:54 AM
Surr: Toluene-d8	99.5		75-125	%REC	20	4/30/2010 08:54 AM
REACTIVE CYANIDE			SW-846			Analyst: HN
Reactive Cyanide	ND		40.0	mg/Kg	1	4/20/2010
REACTIVE SULFIDE			SW-846			Analyst: HN
Reactive Sulfide	ND		40.0	mg/Kg	1	4/20/2010
IGNITABILITY			SW1030			Analyst: JLC
Ignitability, Solid	Negative			no unit	1	4/21/2010 04:50 PM
PH			SW9045B			Analyst: JLC
pH	7.88		0.100	pH Units	1	4/19/2010 04:30 AM

Note: See Qualifiers Page for a list of qualifiers and their explanation.



Chain of Custody Form

ALS Laboratory Group
3352 128th Ave.
Holland, MI 49424-9263
Tel: +1 616 399 6070
Fax: +1 616 399 6185

Customer Information				Project Information				ALS Project Manager				ALS Work Order #					
Purchase Order				Project Name				Parameter/Method Request for Analysis				ALS Work Order #					
Work Order				Project Number				Project Name				Parameter/Method Request for Analysis					
Company Name				Bill To Company				Navajo Refining Company				TCLP Metals					
Send Report To				Invoice Attn				Aaron Strange				TCLP Metals					
Address				Address				501 E Main				TCLP Metals					
City/State/Zip				City/State/Zip				Artesia, NM 88211				TCLP Metals					
Phone				Phone				505 748-3311				TCLP Metals					
Fax				Fax				505 748-5421				TCLP Metals					
e-Mail Address				e-Mail Address								TCLP Metals					
No.	Sample Description	Date	Time	Matrix	Pres.	#Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	T-115 - Exc Soil	4-14-10	1453	S	N	1	X	X	X	X							
2	Temp Black																
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Customer Information

Company Name: Navajo Refining Company

Address: 501 E Main, Artesia, NM 88211

Phone: 505 748-3311

Fax: 505 748-5421

e-Mail Address:

Project Information

Project Name: Disposal

Project Number:

Bill To Company: Navajo Refining Company

Invoice Attn: Aaron Strange

Address: 501 E Main, Artesia, NM 88211

City/State/Zip: Artesia, NM 88211

Phone: 505 748-3311

Fax: 505 748-5421

e-Mail Address:

ALS Project Manager

ALS Work Order #

Parameter/Method Request for Analysis

Sample(s) Please Print & Sign

Relinquished by: Aaron Strange

Relinquished by:

Shipment Method: Fed Ex

Required Turnaround Time: (Check Box)

☒ 5 WK Days

☐ 2 WK Days

☐ 24 Hour

Results Due Date:

QC Package: (Check One Box Below)

☒ Level II Std QC

☐ Level III Std QC

☐ Level IV SW846/CLP

☐ Other:

Logged by (Laboratory):

Preservative Key: 1-HCl, 2-HNO₃, 3-H₂SO₄, 4-NAOH, 5-Na₂S₂O₈, 6-NAHSO₃, 7-Other: 8-7°C

Received by (Laboratory):

Checked by (Laboratory):

QC Package: (Check One Box Below)

☒ Level II Std QC

☐ Level III Std QC

☐ Level IV SW846/CLP

☐ Other:

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.

1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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Chavez, Carl J, EMNRD

From: Strange, Aaron [aaron.strange@hollycorp.com]
Sent: Tuesday, May 18, 2010 9:13 AM
To: Kim Flowers; Chavez, Carl J, EMNRD
Subject: Request for waste approval
Attachments: ALKY Unit Excavated Soil.pdf

Kim,

Please see the attachment requesting the approval of soil excavated from the ALKY Unit at the Artesia Plant.

Thanks,

Aaron Strange
Environmental Technician, Senior
Environmental Department
Navajo Refining Co, LLC
Artesia NM
Off: (575) 746-5468
Cell: (575) 703-5057

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CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL

COMPANY / GENERATOR: Navajo Refining Co.

ADDRESS: 501 E Main Artesia NM 88210

GENERATING SITE: Artesia Plant

COUNTY Eddy STATE NM

TYPE OF WASTE: Excavated soil / contaminated soil

ESTIMATED VOLUME: 120 yds

GENERATING PROCESS: Excavated soil from sewer
repairs/maintenance in the ALKY Unit.

REMARKS: _____

NMOCDFACILITY: CRI

TRUCKING COMPANY: S Brothers

As a condition of acceptance for disposal, I hereby certify that this waste is
A non-exempt waste as defined by the Environmental Protection Agency's
(EPA) July 1988 Regulatory Determination. To my knowledge, this waste
will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the
nature as non-hazardous. I further certify that to my knowledge "hazardous
or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C
and D, has not been added or mixed with the waste so as to make the resultant
mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections
2613.

AGENT: Aaron Strange
SIGNATURE

NAME: Aaron Strange
PRINTED

ADDRESS: 501 E Main Artesia NM
88210

DATE: 5-18-2010

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised March 12, 2007

*Surface Waste Management Facility
Operator
and Generator shall maintain and make this
documentation available for Division
inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address: Navajo Refining Co.
2. Originating Site: Artesia Plant
3. Location of Material (Street Address, City, State or ULSTR): 501 E Main Artesia NM
4. Source and Description of Waste: Excavated soil from sewer repairs/maintenance in the ALKY Unit.
Estimated Volume: 120 yd ³ / bbls Known Volume (to be entered by the operator at the end of the haul) yd ³ / bbls
5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS I, Aaron Strange, representative or authorized agent for Navajo Refining Co. do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification) ☐ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. <u>Operator Use Only: Waste Acceptance Frequency</u> ☐ Monthly ☐ Weekly ☐ Per Load ☒ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items) ☐ MSDS Information ☒ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4) GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS I, , representative for do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.
5. Transporter: S Brothers

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #:

Address of Facility:

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☐ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☐ APPROVED

☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME:

TITLE:

DATE:

SIGNATURE: _____
Surface Waste Management Facility Authorized Agent

TELEPHONE NO.: _____

ALS Laboratory Group

Date: 09-Apr-10

Client: Navajo Refining Company

Project: Disposal

Work Order: 1003757

Sample ID: Alky Sewer Repair Soil

Lab ID: 1003757-02

Collection Date: 3/29/2010 02:34 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY			SW7470		Prep Date: 4/2/2010	Analyst: JCJ
Mercury	ND		0.000200	mg/L	1	4/2/2010 04:56 PM
TCLP METALS			SW1311/6020		Prep Date: 4/5/2010	Analyst: SKS
Arsenic	ND		0.0500	mg/L	10	4/5/2010 07:59 PM
Barium	0.571		0.0500	mg/L	10	4/5/2010 07:59 PM
Cadmium	ND		0.0500	mg/L	10	4/5/2010 07:59 PM
Chromium	ND		0.0500	mg/L	10	4/5/2010 07:59 PM
Lead	ND		0.0500	mg/L	10	4/5/2010 07:59 PM
Selenium	ND		0.0500	mg/L	10	4/5/2010 07:59 PM
Silver	ND		0.0500	mg/L	10	4/5/2010 07:59 PM
TCLP SEMIVOLATILES			SW1311/8270		Prep Date: 4/6/2010	Analyst: ACN
2,4,5-Trichlorophenol	ND		5.0	µg/L	1	4/6/2010 04:39 PM
2,4,6-Trichlorophenol	ND		5.0	µg/L	1	4/6/2010 04:39 PM
2,4-Dinitrotoluene	ND		5.0	µg/L	1	4/6/2010 04:39 PM
Cresols, Total	ND		15	µg/L	1	4/6/2010 04:39 PM
Hexachlorobenzene	ND		5.0	µg/L	1	4/6/2010 04:39 PM
Hexachlorobutadiene	ND		5.0	µg/L	1	4/6/2010 04:39 PM
Hexachloroethane	ND		5.0	µg/L	1	4/6/2010 04:39 PM
Nitrobenzene	ND		5.0	µg/L	1	4/6/2010 04:39 PM
Pentachlorophenol	ND		5.0	µg/L	1	4/6/2010 04:39 PM
Pyridine	ND		5.0	µg/L	1	4/6/2010 04:39 PM
Surr: 2,4,6-Tribromophenol	68.4		42-124	%REC	1	4/6/2010 04:39 PM
Surr: 2-Fluorobiphenyl	68.3		48-120	%REC	1	4/6/2010 04:39 PM
Surr: 2-Fluorophenol	59.0		20-120	%REC	1	4/6/2010 04:39 PM
Surr: 4-Terphenyl-d14	68.7		51-135	%REC	1	4/6/2010 04:39 PM
Surr: Nitrobenzene-d5	70.7		41-120	%REC	1	4/6/2010 04:39 PM
Surr: Phenol-d6	67.3		20-120	%REC	1	4/6/2010 04:39 PM
TCLP VOLATILES			SW1311/8260B		Prep Date: 4/1/2010	Analyst: PC
1,1-Dichloroethene	ND		100	µg/L	20	4/7/2010 11:56 AM
1,2-Dichloroethane	ND		100	µg/L	20	4/7/2010 11:56 AM
1,4-Dichlorobenzene	ND		100	µg/L	20	4/7/2010 11:56 AM
2-Butanone	ND		200	µg/L	20	4/7/2010 11:56 AM
Benzene	ND		100	µg/L	20	4/7/2010 11:56 AM
Carbon tetrachloride	ND		100	µg/L	20	4/7/2010 11:56 AM
Chlorobenzene	ND		100	µg/L	20	4/7/2010 11:56 AM
Chloroform	ND		100	µg/L	20	4/7/2010 11:56 AM
Tetrachloroethene	ND		100	µg/L	20	4/7/2010 11:56 AM
Trichloroethene	ND		100	µg/L	20	4/7/2010 11:56 AM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: 09-Apr-10

Client: Navajo Refining Company

Project: Disposal

Work Order: 1003757

Sample ID: Alky Sewer Repair Soil

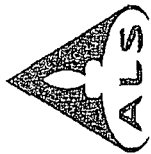
Lab ID: 1003757-02

Collection Date: 3/29/2010 02:34 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Vinyl chloride	ND		100	µg/L	20	4/7/2010 11:58 AM
Surr: 1,2-Dichloroethane-d4	100		70-125	%REC	20	4/7/2010 11:58 AM
Surr: 4-Bromofluorobenzene	97.7		72-125	%REC	20	4/7/2010 11:58 AM
Surr: Dibromofluoromethane	96.1		71-125	%REC	20	4/7/2010 11:58 AM
Surr: Toluene-d8	99.9		75-125	%REC	20	4/7/2010 11:58 AM
REACTIVE CYANIDE			SW-846			Analyst: HN
Reactive Cyanide	ND		40.0	mg/Kg	1	4/5/2010 12:00 PM
REACTIVE SULFIDE			SW-846			Analyst: HN
Reactive Sulfide	ND		40.0	mg/Kg	1	4/5/2010 12:00 PM
IGNITABILITY			SW1030			Analyst: JLC
Ignitability, Solid	Negative			no unit	1	3/31/2010 04:00 PM
PH			SW9045B			Analyst: JLC
pH	7.80		0.100	pH Units	1	3/31/2010 04:00 PM

Note: See Qualifiers Page for a list of qualifiers and their explanation.



☒ **ALS Laboratory Group**
10450 Standliff Rd., Suite 210
Houston, Texas 77099
Tel: +1 281 530 5656
Fax: +1 281 530 5887

Chain of Custody Form

☐ **ALS Laboratory Group**
3352 128th Ave.
Holland, MI 49424-9263
Tel: +1 616 399 6070
Fax: +1 616 399 6185

Page 1 of 1

Customer Information				Project Information				ALS Project Manager: <u>103757</u>											
Project Name: <u>Disposal</u>				Parameter/Method Request for Analysis															
Project Number: <u>103757</u>				Total Quantity (9012)															
Bill To Company: <u>Navajo Refining Company</u>				Phonetics: <u>TCLP VOAS</u>															
Invoice Attn: <u>Jeff Syre</u>				Cust: <u>Meta</u>															
PO Box 159				ISS: <u>RCL</u>															
Address: <u>PO Box 159</u>				Fecal Coliform and EC															
City/State/Zip: <u>Artesia, NM 88211</u>				Radon-228-226															
Phone: <u>505 748-3311</u>																			
Fax: <u>505 748-5421</u>																			
E-Mail Address: <u></u>																			
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	D-439 Chloride Guard	3-29-10	1400	S	Y	1	X	X	X	X									
2	ALKY Sewer-Repairs Soil	3-29-10	1434	S	Y	1	X	X	X	X									
3	Temp Blank																		
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Samples: Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
Date	Time	Date	Time	5 WK Days	2 WK Days	24 Hour	
<u>3-29-10</u>	<u>1615</u>	<u>Fed Ex</u>		☒	☐	☐	

Received by:		Received by Laboratory:		Cooler Temp:	
Date	Time	Date	Time	Cooler ID	Cooler Temp
<u>3-29-10</u>	<u>1615</u>	<u>3-29-10</u>	<u>0900</u>		

Preservative Key:		QC Packages: (Check One Box Below)	
1-HCl	2-HNO ₃	Level II Std QC	Level III Std QC/Raw Data
☒	☐	☒	☐

Preservative Key:		QC Packages: (Check One Box Below)	
3-H ₂ SO ₄	4-NaOH	Level IV SW846/CLP	Other
☐	☐	☐	☐

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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REFINING COMPANY, LLC

RECEIVED OCD

FAX

(575) 746-5283 DIV. ORDERS
(575) 746-5481 TRUCKING
(575) 746-5458 PERSONNEL

501 EAST MAIN STREET • P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159
TELEPHONE (575) 748-3311

FAX

(575) 746-5419 ACCOUNTING
(575) 746-5451 ENV/PURCH/MKTG
(575) 746-5421 ENGINEERING

May 4, 2010

Ms. Hope Monzeglio
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Drive East, Bldg 1
Santa Fe, NM 87505-6303

COPY

**RE: DISSOLVED AIR FLOTATION ANALYTICAL DATA
NAVAJO REFINING COMPANY, ARTESIA REFINERY
EPA ID# NMD048918817
HWB-NRC-MISC**

Dear Ms. Monzeglio,

Enclosed, please find Navajo Refining Company's quarterly analysis for our Dissolved Air Flotation (DAF). If there are any questions concerning this submission, please contact me at 575-746-5281.

Sincerely,
NAVAJO REFINING COMPANY, LLC

Darrell Moore
Environmental Manager for Water and Waste

Cc: Carl Chavez, NMOCD

File: Dissolved Air Flotation Analytical 7A05

ALS Laboratory Group

Date: 28-Apr-10

Client: Navajo Refining Company

Project: DAF

Work Order: 1004373

Sample ID: DAF

Lab ID: 1004373-01

Collection Date: 4/14/2010 02:22 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY			SW7470		Prep Date: 4/20/2010	Analyst: JCJ
Mercury	ND		0.000200	mg/L	1	4/20/2010 02:02 PM
TCLP METALS			SW1311/6020		Prep Date: 4/19/2010	Analyst: SKS
Arsenic	ND		0.0500	mg/L	10	4/19/2010 04:15 PM
Barium	ND		0.0500	mg/L	10	4/19/2010 04:15 PM
Cadmium	ND		0.0500	mg/L	10	4/19/2010 04:15 PM
Chromium	ND		0.0500	mg/L	10	4/19/2010 04:15 PM
Lead	ND		0.0500	mg/L	10	4/19/2010 04:15 PM
Selenium	0.0995		0.0500	mg/L	10	4/19/2010 04:15 PM
Silver	ND		0.0500	mg/L	10	4/19/2010 04:15 PM
TCLP SEMIVOLATILES			SW1311/8270		Prep Date: 4/21/2010	Analyst: ACN
2,4,5-Trichlorophenol	ND		5.0	µg/L	1	4/21/2010 08:46 PM
2,4,6-Trichlorophenol	ND		5.0	µg/L	1	4/21/2010 08:46 PM
2,4-Dinitrotoluene	ND		5.0	µg/L	1	4/21/2010 08:46 PM
Cresols, Total	ND		15	µg/L	1	4/21/2010 08:46 PM
Hexachlorobenzene	ND		5.0	µg/L	1	4/21/2010 08:46 PM
Hexachlorobutadiene	ND		5.0	µg/L	1	4/21/2010 08:46 PM
Hexachloroethane	ND		5.0	µg/L	1	4/21/2010 08:46 PM
Nitrobenzene	ND		5.0	µg/L	1	4/21/2010 08:46 PM
Pentachlorophenol	ND		5.0	µg/L	1	4/21/2010 08:46 PM
Pyridine	ND		5.0	µg/L	1	4/21/2010 08:46 PM
Surr: 2,4,6-Tribromophenol	66.2		42-124	%REC	1	4/21/2010 08:46 PM
Surr: 2-Fluorobiphenyl	78.7		48-120	%REC	1	4/21/2010 08:46 PM
Surr: 2-Fluorophenol	66.5		20-120	%REC	1	4/21/2010 08:46 PM
Surr: 4-Terphenyl-d14	78.2		51-135	%REC	1	4/21/2010 08:46 PM
Surr: Nitrobenzene-d5	71.3		41-120	%REC	1	4/21/2010 08:46 PM
Surr: Phenol-d6	67.3		20-120	%REC	1	4/21/2010 08:46 PM
TCLP VOLATILES			SW1311/8260B		Prep Date: 4/16/2010	Analyst: PC
1,1-Dichloroethene	ND		100	µg/L	20	4/25/2010 10:17 PM
1,2-Dichloroethane	ND		100	µg/L	20	4/25/2010 10:17 PM
1,4-Dichlorobenzene	ND		100	µg/L	20	4/25/2010 10:17 PM
2-Butanone	ND		200	µg/L	20	4/25/2010 10:17 PM
Benzene	ND		100	µg/L	20	4/25/2010 10:17 PM
Carbon tetrachloride	ND		100	µg/L	20	4/25/2010 10:17 PM
Chlorobenzene	ND		100	µg/L	20	4/25/2010 10:17 PM
Chloroform	ND		100	µg/L	20	4/25/2010 10:17 PM
Tetrachloroethene	ND		100	µg/L	20	4/25/2010 10:17 PM
Trichloroethene	ND		100	µg/L	20	4/25/2010 10:17 PM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: 28-Apr-10

Client: Navajo Refining Company

Project: DAF

Work Order: 1004373

Sample ID: DAF

Lab ID: 1004373-01

Collection Date: 4/14/2010 02:22 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Vinyl chloride	ND		100	µg/L	20	4/25/2010 10:17 PM
Surr: 1,2-Dichloroethane-d4	89.4		70-125	%REC	20	4/25/2010 10:17 PM
Surr: 4-Bromofluorobenzene	93.9		72-125	%REC	20	4/25/2010 10:17 PM
Surr: Dibromofluoromethane	98.3		71-125	%REC	20	4/25/2010 10:17 PM
Surr: Toluene-d8	103		75-125	%REC	20	4/25/2010 10:17 PM
REACTIVE CYANIDE			SW-846			Analyst: HN
Reactive Cyanide	ND		40.0	mg/Kg	1	4/20/2010
REACTIVE SULFIDE			SW-846			Analyst: HN
Reactive Sulfide	ND		40.0	mg/Kg	1	4/20/2010
IGNITABILITY			SW1030			Analyst: JLC
Ignitability, Solid	Negative			no unit	1	4/21/2010 04:50 PM
PH			SW9045B			Analyst: JLC
pH	7.17		0.100	pH Units	1	4/19/2010 04:30 AM

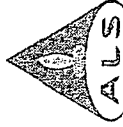
Note: See Qualifiers Page for a list of qualifiers and their explanation.



e-Lab Analytical, Inc.
10450 Stancliff Rd. #210
Houston, Texas 77099
(Tel) 281.530.5656
(Fax) 281.530.5887

Chain of Custody Form

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3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185



Page 1 of 1

Customer Information				Project Information				Project Manager:				Work Order #					
Purchase Order				Project Name				Parameter/Method Request for Analysis				Work Order #					
Work Order				Project Number				DAF				TCLP VOAS					
Company Name				Bill To Company				Navajo Refining Company				TCLP Semi VOAS					
Send Report To				Invoice Attn				Jeff Byrd				TCLP Metals					
Address				PO Box 159				PO Box 159				RCL					
City/State/Zip				Artesia, NM 88211				Artesia, NM 88211									
Phone				575 748-3311				575 748-3311									
Fax				575 746-5421				575 746-5421									
e-Mail Address																	
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	DAF	4-14-10	1422	S	N	1	X	X	X	X							☐
2	Temp Black			S													☐
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date	
Aaron Strange		FedEx		✓ 10-14-10 1422		10-14-10	
Relinquished by:		Time: 1615		Notes: 10 Working Days			
Relinquished by:		Time:		Notes:			
Logged by (Laboratory):		Date: 4-14-10		Cooler ID:		Cooler Temp:	
Date: 4-14-10		Time: 1615		Received by (Laboratory):		QC Package: (Check One Box Below)	
Date: 4-14-10		Time: 1615		Checked by (Laboratory):		☐ Level III SU OC	
Date: 4-14-10		Time: 1615		Date: 4-14-10		☐ Level III SU OC/RW Data	
Date: 4-14-10		Time: 1615		Date: 4-14-10		☐ Level IV SW/30-60-CP	
Date: 4-14-10		Time: 1615		Date: 4-14-10		☐ Other	

Preservative Key:	
1-HCl	2-HNO ₃
3-H ₂ SO ₄	4-NaOH
5-Na ₂ S ₂ O ₃	6-NaHSO ₃
7-Other	8-4°C
9-50/35	

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to e-Lab Analytical, Inc.
2. Unless otherwise agreed in a formal contract, services provided by e-Lab Analytical, Inc. are expressly limited to the terms and conditions stated on the reverse.

Chavez, Carl J, EMNRD

From: Strange, Aaron [aaron.strange@hollycorp.com]
Sent: Monday, January 18, 2010 11:39 AM
To: Kim Flowers; Chavez, Carl J, EMNRD
Subject: South Plant Cooling Tower Sludge
Attachments: SP Cooling Tower Sludge.pdf

Kim,

Please see the attachment requesting the approval South Plant (Crude Unit) Cooling Tower Sludge from the Artesia Plant.

Thanks,

Aaron Strange
Environmental Technician, Senior
Environmental Department
Navajo Refining Co, LLC
Artesia NM
Off: (575) 746-5468
Cell: (575) 703-5057

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This inbound email has been scanned for malicious software and transmitted safely to you using Webroot Email Security.

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL

COMPANY / GENERATOR: Navajo Refining Co.

ADDRESS: 501 E Main Artesia NM 88210

GENERATING SITE: Artesia Plant

COUNTY Eddy STATE NM
TYPE OF WASTE: South Plant (Crude Unit) Cooling Tower Sludge

ESTIMATED VOLUME: 60 yds

GENERATING PROCESS: Water cooling for refining process.

REMARKS: _____

NMOCD FACILITY: CRI

TRUCKING COMPANY: Not yet decided. (using vacuum trucks)

As a condition of acceptance for disposal, I hereby certify that this waste is A non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AGENT: Aaron Strange
SIGNATURE

NAME: Aaron Strange
PRINTED

ADDRESS: 501 E Main Artesia NM
88210

DATE: 1/18/2010

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised March 12, 2007

*Surface Waste Management Facility
Operator
and Generator shall maintain and make this
documentation available for Division
inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address: Navajo Refining Co.
2. Originating Site: Artesia Plant
3. Location of Material (Street Address, City, State or ULSTR): 501 E Main Artesia NM
4. Source and Description of Waste: Cooling Tower Sludge from the South Plant (Crude Unit)
Estimated Volume <u>60</u> yd ³ / bbls Known Volume (to be entered by the operator at the end of the haul) _____ yd ³ / bbls
5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS I, <u>Aaron Strange</u> , representative or authorized agent for <u>Navajo Refining Co.</u> do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification) ☐ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. <u>Operator Use Only: Waste Acceptance Frequency</u> ☐ Monthly ☐ Weekly ☐ Per Load ☒ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items) ☐ MSDS Information ☒ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4) GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS I, <u>Aaron Strange</u> , representative for <u>Navajo Refining Co.</u> do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.
5. Transporter: Not yet decided. (using vacuum trucks)

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #:

Address of Facility:

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☐ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☐ APPROVED

☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME: _____

TITLE: _____

DATE: _____

SIGNATURE: _____

Surface Waste Management Facility Authorized Agent

TELEPHONE NO.: _____

ALS Laboratory Group

Date: 11-Jan-10

Client: Navajo Refining Company
Project: SP Cooling Towers
Sample ID: SP Cooling Tower Sludge
Collection Date: 1/6/2010 02:10 PM

Work Order: 1001087
Lab ID: 1001087-01
Matrix: SLUDGE

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY			SW7470		Prep Date: 1/8/2010	Analyst: JCJ
Mercury	ND		0.000200	mg/L	1	1/8/2010 03:34 PM
TCLP METALS			SW1311/6020		Prep Date: 1/8/2010	Analyst: ALR
Arsenic	ND		0.0500	mg/L	10	1/8/2010 09:21 PM
Barium	0.136		0.0500	mg/L	10	1/8/2010 09:21 PM
Cadmium	ND		0.0500	mg/L	10	1/8/2010 09:21 PM
Chromium	ND		0.0500	mg/L	10	1/8/2010 09:21 PM
Lead	ND		0.0500	mg/L	10	1/8/2010 09:21 PM
Selenium	ND		0.0500	mg/L	10	1/8/2010 09:21 PM
Silver	ND		0.0500	mg/L	10	1/8/2010 09:21 PM
TCLP MISCELLANEOUS METALS			SW1311/6020		Prep Date: 1/8/2010	Analyst: ALR
Antimony	ND		0.0500	mg/L	10	1/8/2010 09:21 PM
Beryllium	ND		0.0500	mg/L	10	1/8/2010 09:21 PM
Nickel	0.115		0.0500	mg/L	10	1/8/2010 09:21 PM
TCLP SEMIVOLATILES			SW1311/8270		Prep Date: 1/8/2010	Analyst: ACN
2,4,5-Trichlorophenol	ND		0.0050	mg/L	1	1/8/2010 05:51 PM
2,4,6-Trichlorophenol	ND		0.0050	mg/L	1	1/8/2010 05:51 PM
2,4-Dinitrotoluene	ND		0.0050	mg/L	1	1/8/2010 05:51 PM
Cresols, Total	ND		0.015	mg/L	1	1/8/2010 05:51 PM
Hexachlorobenzene	ND		0.0050	mg/L	1	1/8/2010 05:51 PM
Hexachlorobutadiene	ND		0.0050	mg/L	1	1/8/2010 05:51 PM
Hexachloroethane	ND		0.0050	mg/L	1	1/8/2010 05:51 PM
Nitrobenzene	ND		0.0050	mg/L	1	1/8/2010 05:51 PM
Pentachlorophenol	ND		0.0050	mg/L	1	1/8/2010 05:51 PM
Pyridine	ND		0.0050	mg/L	1	1/8/2010 05:51 PM
Surr: 2,4,6-Tribromophenol	73.1		42-124	%REC	1	1/8/2010 05:51 PM
Surr: 2-Fluorobiphenyl	74.8		48-120	%REC	1	1/8/2010 05:51 PM
Surr: 2-Fluorophenol	70.5		20-120	%REC	1	1/8/2010 05:51 PM
Surr: 4-Terphenyl-d14	71.3		51-135	%REC	1	1/8/2010 05:51 PM
Surr: Nitrobenzene-d5	69.5		41-120	%REC	1	1/8/2010 05:51 PM
Surr: Phenol-d6	76.5		20-120	%REC	1	1/8/2010 05:51 PM
TCLP VOLATILES			SW1311/8260B		Prep Date: 1/7/2010	Analyst: WLR
1,1-Dichloroethene	ND		0.10	mg/L	20	1/8/2010 11:55 AM
1,2-Dichloroethane	ND		0.10	mg/L	20	1/8/2010 11:55 AM
1,4-Dichlorobenzene	ND		0.10	mg/L	20	1/8/2010 11:55 AM
2-Butanone	ND		0.20	mg/L	20	1/8/2010 11:55 AM
Benzene	ND		0.10	mg/L	20	1/8/2010 11:55 AM
Carbon tetrachloride	ND		0.10	mg/L	20	1/8/2010 11:55 AM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: 11-Jan-10

Client: Navajo Refining Company

Project: SP Cooling Towers

Work Order: 1001087

Sample ID: SP Cooling Tower Sludge

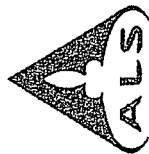
Lab ID: 1001087-01

Collection Date: 1/6/2010 02:10 PM

Matrix: SLUDGE

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND		0.10	mg/L	20	1/8/2010 11:55 AM
Chloroform	ND		0.10	mg/L	20	1/8/2010 11:55 AM
Tetrachloroethene	ND		0.10	mg/L	20	1/8/2010 11:55 AM
Trichloroethene	ND		0.10	mg/L	20	1/8/2010 11:55 AM
Vinyl chloride	ND		0.10	mg/L	20	1/8/2010 11:55 AM
Surr: 1,2-Dichloroethane-d4	97.4		70-125	%REC	20	1/8/2010 11:55 AM
Surr: 4-Bromofluorobenzene	97.7		72-125	%REC	20	1/8/2010 11:55 AM
Surr: Dibromofluoromethane	96.9		71-125	%REC	20	1/8/2010 11:55 AM
Surr: Toluene-d8	99.6		75-125	%REC	20	1/8/2010 11:55 AM
REACTIVE CYANIDE			SW-846			Analyst: HN
Reactive Cyanide	ND		40.0	mg/Kg	1	1/8/2010
REACTIVE SULFIDE			SW-846			Analyst: HN
Reactive Sulfide	ND		40.0	mg/Kg	1	1/8/2010
IGNITIBILITY			SW1010			Analyst: TDW
Ignitability	>212		50.0	°F	1	1/11/2010 11:22 AM
PH			SW9045B			Analyst: TDW
pH	7.10		0.100	pH Units	1	1/7/2010 02:00 PM

Note: See Qualifiers Page for a list of qualifiers and their explanation.



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10450 Stancil Rd., Suite 210
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Fax. +1 281 530 5887

Chain of Custody Form

☐ **ALS Laboratory Group**
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Holland, MI 49424-9263
Tel: +1 616 399 6070
Fax: +1 616 399 6185

Page 1 of 1

Customer Information				Project Information				ALS Project Manager				ALS Work Order #					
Purchase Order				Project Name				Parameter/Method Request for Analysis									
Work Order				Project Number													
Company Name				Bill To Company													
Send Report To				Invoice Attn													
Address				Address													
City/State/Zip				City/State/Zip													
Phone				Phone													
Fax				Fax													
e-Mail Address				e-Mail Address													
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	SP Cooling Tower Sludge	1-6-10	1410	L	Y	1	X										
2	Temp Blank																
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
Sampler(s) Please Print & Sign				Shipment Method				Required Turnaround Time: (Check Box)				Results Due Date:					
Akron Strange				Fed Ex				☐ STD 10 Wk Days ☐ 5 Wk Days ☒ 2 Wk Days ☐ 24 Hour									
Relinquished by: <i>Marjorie Strange</i>				Received by: <i>Marjorie Strange</i>				Notes:									
Date: 1-6-10				Time: 1615				Cooler ID				Cooler Temp					
Relinquished by:				Checked by (Laboratory):				QC Package: (Check One Box Below)									
Date:				Time:				☐ Level II Std OC ☐ TRRP Checklist									
Date:				Time:				☐ Level III Std OC/Raw Data ☐ TRRP Level IV									
Date:				Time:				☐ Level IV SW846/CLP ☐ Other									
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-50/35°																	

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

Chavez, Carl J, EMNRD

From: Strange, Aaron [aaron.strange@hollycorp.com]
Sent: Thursday, December 17, 2009 4:11 PM
To: Kim Flowers; Chavez, Carl J, EMNRD
Subject: Request for waste approval
Attachments: T-57 soil.pdf

Kim,

Please see the attachment requesting the approval of T-57 Soil from the Artesia Plant.

Thanks,

Aaron Strange
Environmental Technician, Senior
Environmental Department
Navajo Refining Co, LLC
Artesia NM
Off: (575) 746-5468
Cell: (575) 703-5057

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**CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL**

COMPANY / GENERATOR: Navajo Refining Co.
ADDRESS: 501 E Main Artesia NM 88210
GENERATING SITE: Artesia Plant
COUNTY Eddy STATE NM
TYPE OF WASTE: Contaminated Soil
ESTIMATED VOLUME: 50 yds
GENERATING PROCESS: Excavated Soil at T-57
for cleanout box.
REMARKS: _____
NMOCD FACILITY: CRI
TRUCKING COMPANY: S Brothers

As a condition of acceptance for disposal, I hereby certify that this waste is
A non-exempt waste as defined by the Environmental Protection Agency's
(EPA) July 1988 Regulatory Determination. To my knowledge, this waste
will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the
nature as non-hazardous. I further certify that to my knowledge "hazardous
or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C
and D, has not been added or mixed with the waste so as to make the resultant
mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections
2613.

AGENT: 
SIGNATURE
NAME: Aaron Strange
PRINTED
ADDRESS: 501 E Main Artesia NM
DATE: 12-17-09

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised March 12, 2007

*Surface Waste Management Facility
Operator
and Generator shall maintain and make this
documentation available for Division
inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address: Navajo Refining Co.
2. Originating Site: Artesia Plant
3. Location of Material (Street Address, City, State or ULSTR): 501 E Main Artesia NM
4. Source and Description of Waste: Excavated soil at T-57 for cleanout box.
Estimated Volume: 50 yd ³ / bbls Known Volume (to be entered by the operator at the end of the haul) yd ³ / bbls
5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS I, Aaron Strange, representative or authorized agent for Navajo Refining Co. do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification) ☐ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. <u>Operator Use Only Waste Acceptance Frequency</u> ☐ Monthly ☐ Weekly ☐ Per Load ☒ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items) ☐ MSDS Information ☒ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4) GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS I, representative for do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.
5. Transporter: S Brothers

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #:

Address of Facility:

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☐ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☐ APPROVED

☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME:

TITLE:

DATE:

SIGNATURE:

TELEPHONE NO.:

Surface Waste Management Facility Authorized Agent

ALS Laboratory Group

Date: 01-Dec-09

Client: Navajo Refining Company

Project: T-57 Soil

Work Order: 0911430

Sample ID: T-57 Soil

Lab ID: 0911430-01

Collection Date: 11/16/2009 09:40 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY						
Mercury	ND		SW7470 0.000200	mg/L	1	Prep Date: 11/23/2009 Analyst: JCJ 11/23/2009 05:31 PM
TCLP METALS						
Arsenic	ND		SW1311/6020 0.0500	mg/L	10	Prep Date: 11/20/2009 Analyst: ALR 11/20/2009 09:04 PM
Barium	1.78		0.0500	mg/L	10	11/20/2009 09:04 PM
Cadmium	ND		0.0500	mg/L	10	11/20/2009 09:04 PM
Chromium	ND		0.0500	mg/L	10	11/20/2009 09:04 PM
Lead	ND		0.0500	mg/L	10	11/20/2009 09:04 PM
Selenium	ND		0.0500	mg/L	10	11/20/2009 09:04 PM
Silver	ND		0.0500	mg/L	10	11/20/2009 09:04 PM
TCLP SEMIVOLATILES						
2,4,5-Trichlorophenol	ND		SW1311/8270 5.0	µg/L	1	Prep Date: 11/20/2009 Analyst: ACN 11/23/2009 03:36 PM
2,4,6-Trichlorophenol	ND		5.0	µg/L	1	11/23/2009 03:36 PM
2,4-Dinitrotoluene	ND		5.0	µg/L	1	11/23/2009 03:36 PM
Cresols, Total	ND		15	µg/L	1	11/23/2009 03:36 PM
Hexachlorobenzene	ND		5.0	µg/L	1	11/23/2009 03:36 PM
Hexachlorobutadiene	ND		5.0	µg/L	1	11/23/2009 03:36 PM
Hexachloroethane	ND		5.0	µg/L	1	11/23/2009 03:36 PM
Nitrobenzene	ND		5.0	µg/L	1	11/23/2009 03:36 PM
Pentachlorophenol	ND		5.0	µg/L	1	11/23/2009 03:36 PM
Pyridine	ND		5.0	µg/L	1	11/23/2009 03:36 PM
Surr: 2,4,6-Tribromophenol	76.0		42-124	%REC	1	11/23/2009 03:36 PM
Surr: 2-Fluorobiphenyl	60.5		48-120	%REC	1	11/23/2009 03:36 PM
Surr: 2-Fluorophenol	57.1		20-120	%REC	1	11/23/2009 03:36 PM
Surr: 4-Terphenyl-d14	64.2		51-135	%REC	1	11/23/2009 03:36 PM
Surr: Nitrobenzene-d5	59.7		41-120	%REC	1	11/23/2009 03:36 PM
Surr: Phenol-d6	59.4		20-120	%REC	1	11/23/2009 03:36 PM
TCLP VOLATILES						
1,1-Dichloroethene	ND		SW1311/8260B 100	µg/L	20	Prep Date: 11/19/2009 Analyst: PC 11/24/2009 06:21 PM
1,2-Dichloroethane	ND		100	µg/L	20	11/24/2009 06:21 PM
1,4-Dichlorobenzene	ND		100	µg/L	20	11/24/2009 06:21 PM
2-Butanone	ND		200	µg/L	20	11/24/2009 06:21 PM
Benzene	ND		100	µg/L	20	11/24/2009 06:21 PM
Carbon tetrachloride	ND		100	µg/L	20	11/24/2009 06:21 PM
Chlorobenzene	ND		100	µg/L	20	11/24/2009 06:21 PM
Chloroform	ND		100	µg/L	20	11/24/2009 06:21 PM
Tetrachloroethene	ND		100	µg/L	20	11/24/2009 06:21 PM
Trichloroethene	ND		100	µg/L	20	11/24/2009 06:21 PM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: 01-Dec-09

Client: Navajo Refining Company

Project: T-57 Soil

Work Order: 0911430

Sample ID: T-57 Soil

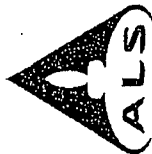
Lab ID: 0911430-01

Collection Date: 11/16/2009 09:40 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Vinyl chloride	ND		100	µg/L	20	11/24/2009 06:21 PM
Surr: 1,2-Dichloroethane-d4	98.4		70-125	%REC	20	11/24/2009 06:21 PM
Surr: 4-Bromofluorobenzene	95.1		72-125	%REC	20	11/24/2009 06:21 PM
Surr: Dibromofluoromethane	100		71-125	%REC	20	11/24/2009 06:21 PM
Surr: Toluene-d8	95.6		75-125	%REC	20	11/24/2009 06:21 PM
REACTIVE CYANIDE			SW-846			Analyst: HN
Reactive Cyanide	ND		40.0	mg/Kg	1	11/19/2009 09:30 AM
REACTIVE SULFIDE			SW-846			Analyst: HN
Reactive Sulfide	ND		40.0	mg/Kg	1	11/19/2009 09:30 AM
IGNITABILITY			SW1030			Analyst: TH
Ignitability, Solid	Negative			no unit	1	11/24/2009 01:00 PM
PH			SW9045B			Analyst: TH
pH	7.86		0.100	pH Units	1	11/18/2009 03:00 PM

Note: See Qualifiers Page for a list of qualifiers and their explanation.



ALS Laboratory Group
10450 Slandiff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

Chain of Custody Form

☐ **ALS Laboratory Group**
3352 128th Ave.
Holland, MI 49424-9263
Tel. +1 616 399 6070
Fax. +1 616 399 6185

Page 1 of 1

Customer Information				Project Information				ALS Project Manager				ALS Work Order #			
Purchase Order				Project Name				Parameter/Method Request for Analysis				ALS Work Order #			
Work Order				Project Number				TCLP VOAS				011930			
Company Name				Navajo Refining Company				TCLP semi VOAS							
Send Report To				Aaron Strange				TCLP Metals							
Address				P.O. Box 159				ACI							
City/State/Zip				Artesia, NM 80211											
Phone				746-5421											
Fax				746-5421											
E-Mail Address				dgboyer@SES-NM.com											
Sample Description				T-57 soil				Bottles				A B C D E F G H I J			
Date				11-16-09				Y				X X X X			
Time				0940											
Shipment Method				Fed Ex											
Sample(s) Please Print & Sign				A. A. H. Strange											
Relinquished by:				A. A. H. Strange											
Date				11-16-09											
Time				1015											
Received by:				A. A. H. Strange											
Date				11-16-09											
Time				0910											
Checked by:				A. A. H. Strange											
Date				11-16-09											
Time				0910											
Presentative Key:				1-HCl, 2-HNO ₃ , 3-H ₂ SO ₄ , 4-NaOH, 5-Na ₂ O, 6-NaHSO ₄ , 7-Other											
Results Due Date:															

Notes: 5 Work Days TAT.

QC Packages (Check One Box Below):
☐ Level II Std QC
☐ Level III Std QC/Rep Data
☐ Level IV SWQAC/CLIP
☐ Other

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.

Chavez, Carl J, EMNRD

From: Strange, Aaron [aaron.strange@hollycorp.com]
Sent: Monday, November 23, 2009 4:28 PM
To: Kim Flowers; Chavez, Carl J, EMNRD
Subject: Request for waste approval
Attachments: New ROSE Unit Soil.pdf

Kim,

Please see the attachment requesting the approval of New ROSE Unit Soil from the Artesia Plant.

Thanks,

Aaron Strange
Environmental Technician, Senior

Environmental Department
Navajo Refining Co, LLC
Artesia NM
Off: (575) 746-5468
Cell: (575) 703-5057

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**CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL**

COMPANY / GENERATOR: Navajo Refining Co.

ADDRESS: 501 E Main Artesia NM 88210

GENERATING SITE: Artesia Plant

COUNTY Eddy STATE NM
TYPE OF WASTE: Excavated Soil/Contaminated Soil

ESTIMATED VOLUME: 900 yds

GENERATING PROCESS: Excavated Soil for New
ROSE Unit

REMARKS: _____

NMOCD FACILITY: CRI

TRUCKING COMPANY: S Brothers

As a condition of acceptance for disposal, I hereby certify that this waste is
A non-exempt waste as defined by the Environmental Protection Agency's
(EPA) July 1988 Regulatory Determination. To my knowledge, this waste
will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the
nature as non-hazardous. I further certify that to my knowledge "hazardous
or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C
and D, has not been added or mixed with the waste so as to make the resultant
mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections
2613.

AGENT: Aaron Strange
SIGNATURE

NAME: Aaron Strange
PRINTED

ADDRESS: 501 E Main Artesia NM

DATE: 11-23-09

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised March 12, 2007

*Surface Waste Management Facility
Operator
and Generator shall maintain and make this
documentation available for Division
inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address: Navajo Refining Co.
2. Originating Site: Artesia Plant
3. Location of Material (Street Address, City, State or ULSTR): 501 E Main Artesia NM
4. Source and Description of Waste: Excavated soil for New ROSE Unit.
Estimated Volume 900 yd ³ / bbls Known Volume (to be entered by the operator at the end of the haul) yd ³ / bbls
5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS I, Aaron Strange, representative or authorized agent for Navajo Refining Co. do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification) ☐ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. Operator Use Only: Waste Acceptance Frequency ☒ Monthly ☐ Weekly ☐ Per Load ☒ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items) ☐ MSDS Information ☒ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4)
GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS I, representative for do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.
5. Transporter: S Brothers

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #:

Address of Facility:

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☐ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☐ APPROVED

☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME:

TITLE:

DATE:

SIGNATURE:

TELEPHONE NO.:

Surface Waste Management Facility Authorized Agent

ALS Laboratory Group

Date: 16-Sep-08

Client: Navajo Refining Company

Project: Kleihege Disposal

Sample ID: Rose Foundation Soil

Collection Date: 8/29/2008 01:55 PM

Work Order: 0808747

Lab ID: 0808747-01

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY			SW7470		Prep Date: 9/5/2008	Analyst: JCJ
Mercury	ND		0.000200	mg/L	1	9/5/2008 04:03 PM
TCLP METALS, ICP			SW1311/6020		Prep Date: 9/3/2008	Analyst: IGF
Arsenic	ND		0.0500	mg/L	10	9/4/2008 02:43 PM
Barium	0.881		0.0500	mg/L	10	9/4/2008 02:43 PM
Cadmium	ND		0.0500	mg/L	10	9/4/2008 02:43 PM
Chromium	ND		0.0500	mg/L	10	9/4/2008 02:43 PM
Lead	ND		0.0500	mg/L	10	9/4/2008 02:43 PM
Selenium	ND		0.0500	mg/L	10	9/4/2008 02:43 PM
Silver	ND		0.0500	mg/L	10	9/4/2008 02:43 PM
TCLP SEMIVOLATILES			SW1311/8270		Prep Date: 9/3/2008	Analyst: ACN
2,4,5-Trichlorophenol	ND		5.0	µg/L	1	9/3/2008 04:53 PM
2,4,6-Trichlorophenol	ND		5.0	µg/L	1	9/3/2008 04:53 PM
2,4-Dinitrotoluene	ND		5.0	µg/L	1	9/3/2008 04:53 PM
Cresols, Total	ND		15	µg/L	1	9/3/2008 04:53 PM
Hexachlorobenzene	ND		5.0	µg/L	1	9/3/2008 04:53 PM
Hexachlorobutadiene	ND		5.0	µg/L	1	9/3/2008 04:53 PM
Hexachloroethane	ND		5.0	µg/L	1	9/3/2008 04:53 PM
Nitrobenzene	ND		5.0	µg/L	1	9/3/2008 04:53 PM
Pentachlorophenol	ND		5.0	µg/L	1	9/3/2008 04:53 PM
Pyridine	ND		5.0	µg/L	1	9/3/2008 04:53 PM
Surr: 2,4,6-Tribromophenol	64.9		42-124	%REC	1	9/3/2008 04:53 PM
Surr: 2-Fluorobiphenyl	68.4		48-120	%REC	1	9/3/2008 04:53 PM
Surr: 2-Fluorophenol	58.4		20-120	%REC	1	9/3/2008 04:53 PM
Surr: 4-Terphenyl-d14	73.9		51-135	%REC	1	9/3/2008 04:53 PM
Surr: Nitrobenzene-d5	68.7		41-120	%REC	1	9/3/2008 04:53 PM
Surr: Phenol-d6	60.2		20-120	%REC	1	9/3/2008 04:53 PM
TCLP VOLATILES			SW1311/8260B		Prep Date: 9/2/2008	Analyst: PC
1,1-Dichloroethene	ND		100	µg/L	20	9/4/2008 06:49 PM
1,2-Dichloroethane	ND		100	µg/L	20	9/4/2008 06:49 PM
1,4-Dichlorobenzene	ND		100	µg/L	20	9/4/2008 06:49 PM
2-Butanone	ND		200	µg/L	20	9/4/2008 06:49 PM
Benzene	ND		100	µg/L	20	9/4/2008 06:49 PM
Carbon tetrachloride	ND		100	µg/L	20	9/4/2008 06:49 PM
Chlorobenzene	ND		100	µg/L	20	9/4/2008 06:49 PM
Chloroform	ND		100	µg/L	20	9/4/2008 06:49 PM
Tetrachloroethene	ND		100	µg/L	20	9/4/2008 06:49 PM
Trichloroethene	ND		100	µg/L	20	9/4/2008 06:49 PM

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
a - Not accredited

S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time
n - Not offered for accreditation

ALS Laboratory Group

Date: 16-Sep-08

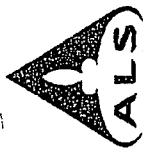
Client: Navajo Refining Company
Project: Kleihege Disposal
Sample ID: Rose Foundation Soil
Collection Date: 8/29/2008 01:55 PM

Work Order: 0808747
Lab ID: 0808747-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Vinyl chloride	ND		100	µg/L	20	9/4/2008 06:49 PM
Surr: 1,2-Dichloroethane-d4	105		70-125	%REC	20	9/4/2008 06:49 PM
Surr: 4-Bromofluorobenzene	97.8		72-125	%REC	20	9/4/2008 06:49 PM
Surr: Dibromofluoromethane	98.3		71-125	%REC	20	9/4/2008 06:49 PM
Surr: Toluene-d8	98.1		75-125	%REC	20	9/4/2008 06:49 PM
CYANIDE, REACTIVE			SW-846			Analyst: HN
Reactive Cyanide	ND		40.0	mg/Kg	1	9/4/2008
SULFIDE, REACTIVE			SW-846			Analyst: HN
Reactive Sulfide	ND		40.0	mg/Kg	1	9/4/2008
IGNITABILITY - SW1010			SW1010			Analyst: MAM
Ignitability	No		50	°F	1	9/9/2008 06:00 PM
PH IN SOLID			SW9045B			Analyst: MAM
pH	7.72		0.100	pH Units	1	9/2/2008 01:00 PM

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
a - Not accredited

S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time
n - Not offered for accreditation



☐ **ALS Laboratory Group**
10450 Standcliff Rd., Suite 210
Houston, Texas 77059
Tel. +1 281 530 5656
Fax. +1 281 530 5887

Chain of Custody Form

☐ **ALS Laboratory Group**
3352 128th Ave.
Holland, MI 49424-9263
Tel: +1 616 399 6070
Fax: +1 616 399 6185

Page 1 of 1

Customer Information				Project Information				ALS Project Manager				ALS Work Order #					
Project Name				Project Number				Parameter/Method Request for Analysis									
Purchase Order				Project Name				A				TCLP VOA'S					
Work Order				Project Number				B				TCLP SemiVOA'S					
Company Name				Bill To Company				C				TCLP Metals					
Send Report To				Invoice Attn				D				RCI					
Address				Address				E									
City/State/Zip				City/State/Zip				F									
Phone				Phone				G									
Fax				Phone				H									
e-Mail Address				e-Mail Address				I									
e-Mail Address				e-Mail Address				J									
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	ROSE Foundation Soil	8/29/08	1355	S	Y	1	X	X	X	X							
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
Sampler(s) Please Print & Sign				Shipment Method				Required Turnaround Time (Check Box)				Results Due Date					
Adrian Strange				Fed Ex				☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour									
Received by:				Received by:				Notes									
Date: 8/29/08 Time: 1445				Date: 8/30/08 Time: 08:50													
Requisitioned by:				Checked by (Laboratory):				Cooler ID				Cooler Temp					
Date: 8/29/08				Date: 8/30/08													
Logged by (Laboratory):				6-NaHSO ₄				7-Other				8-4°C					
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃				6-NaHSO ₄				7-Other				8-4°C					
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃				6-NaHSO ₄				7-Other				8-4°C					
QC Package: (Check One Box Below)				QC Package: (Check One Box Below)				QC Package: (Check One Box Below)				QC Package: (Check One Box Below)					
☐ Level II Std QC				☐ Level II Std QC				☐ Level II Std QC				☐ Level II Std QC					
☐ Level III Std QC/Raw Date				☐ Level III Std QC/Raw Date				☐ Level III Std QC/Raw Date				☐ Level III Std QC/Raw Date					
☐ Level IV SW846/CLP				☐ Level IV SW846/CLP				☐ Level IV SW846/CLP				☐ Level IV SW846/CLP					
☐ Other				☐ Other				☐ Other				☐ Other					

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.

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ALS Laboratory Group

Date: 26-Feb-09

Client: Navajo Refining Company

Project: Kleihege ROSE

Work Order: 0902394

Sample ID: Fire Water Line

Lab ID: 0902394-01

Collection Date: 2/13/2009 02:10 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH						
			TX1005		Prep Date: 2/18/2009	Analyst: KMB
nC6 to nC12	ND		49	mg/Kg	1	2/26/2009 02:17 PM
>nC12 to nC28	ND		49	mg/Kg	1	2/26/2009 02:17 PM
>nC28 to nC35	ND		49	mg/Kg	1	2/26/2009 02:17 PM
Total Petroleum Hydrocarbon	ND		49	mg/Kg	1	2/26/2009 02:17 PM
Surr: 2-Fluorobiphenyl	95.5		70-130	%REC	1	2/26/2009 02:17 PM
Surr: Trifluoromethyl benzene	114		70-130	%REC	1	2/26/2009 02:17 PM
TCLP MERCURY						
			SW7470		Prep Date: 2/19/2009	Analyst: JCJ
Mercury	ND		0.000200	mg/L	1	2/19/2009 06:41 PM
TCLP METALS						
			SW1311/6020		Prep Date: 2/19/2009	Analyst: ALR
Arsenic	ND		0.0500	mg/L	10	2/20/2009 12:37 AM
Barium	0.900		0.0500	mg/L	10	2/20/2009 12:37 AM
Cadmium	ND		0.0500	mg/L	10	2/20/2009 12:37 AM
Chromium	ND		0.0500	mg/L	10	2/20/2009 12:37 AM
Lead	ND		0.0500	mg/L	10	2/20/2009 12:37 AM
Selenium	ND		0.0500	mg/L	10	2/20/2009 12:37 AM
Silver	ND		0.0500	mg/L	10	2/20/2009 12:37 AM
TCLP SEMIVOLATILES						
			SW1311/8270		Prep Date: 2/18/2009	Analyst: ACN
2,4,5-Trichlorophenol	ND		5.0	µg/L	1	2/19/2009 02:49 PM
2,4,6-Trichlorophenol	ND		5.0	µg/L	1	2/19/2009 02:49 PM
2,4-Dinitrotoluene	ND		5.0	µg/L	1	2/19/2009 02:49 PM
Cresols, Total	ND		15	µg/L	1	2/19/2009 02:49 PM
Hexachlorobenzene	ND		5.0	µg/L	1	2/19/2009 02:49 PM
Hexachlorobutadiene	ND		5.0	µg/L	1	2/19/2009 02:49 PM
Hexachloroethane	ND		5.0	µg/L	1	2/19/2009 02:49 PM
Nitrobenzene	ND		5.0	µg/L	1	2/19/2009 02:49 PM
Pentachlorophenol	ND		5.0	µg/L	1	2/19/2009 02:49 PM
Pyridine	ND		5.0	µg/L	1	2/19/2009 02:49 PM
Surr: 2,4,6-Tribromophenol	71.5		42-124	%REC	1	2/19/2009 02:49 PM
Surr: 2-Fluorobiphenyl	54.7		48-120	%REC	1	2/19/2009 02:49 PM
Surr: 2-Fluorophenol	45.8		20-120	%REC	1	2/19/2009 02:49 PM
Surr: 4-Terphenyl-d14	67.5		51-135	%REC	1	2/19/2009 02:49 PM
Surr: Nitrobenzene-d5	49.2		41-120	%REC	1	2/19/2009 02:49 PM
Surr: Phenol-d6	49.9		20-120	%REC	1	2/19/2009 02:49 PM
TCLP VOLATILES						
			SW1311/8260B		Prep Date: 2/18/2009	Analyst: PC
1,1-Dichloroethene	ND		100	µg/L	20	2/19/2009 07:51 PM
1,2-Dichloroethane	ND		100	µg/L	20	2/19/2009 07:51 PM
1,4-Dichlorobenzene	ND		100	µg/L	20	2/19/2009 07:51 PM

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level
 a - Not accredited

S - Spike Recovery outside accepted recovery limits
 P - Dual Column results percent difference > 40%
 E - Value above quantitation range
 H - Analyzed outside of Hold Time
 n - Not offered for accreditation

ALS Laboratory Group

Date: 26-Feb-09

Client: Navajo Refining Company

Project: Kleihege ROSE

Sample ID: Fire Water Line

Collection Date: 2/13/2009 02:10 PM

Work Order: 0902394

Lab ID: 0902394-01

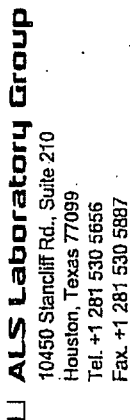
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
2-Butanone	ND		200	µg/L	20	2/19/2009 07:51 PM
Benzene	ND		100	µg/L	20	2/19/2009 07:51 PM
Carbon tetrachloride	ND		100	µg/L	20	2/19/2009 07:51 PM
Chlorobenzene	ND		100	µg/L	20	2/19/2009 07:51 PM
Chloroform	ND		100	µg/L	20	2/19/2009 07:51 PM
Tetrachloroethene	ND		100	µg/L	20	2/19/2009 07:51 PM
Trichloroethene	ND		100	µg/L	20	2/19/2009 07:51 PM
Vinyl chloride	ND		100	µg/L	20	2/19/2009 07:51 PM
Surr: 1,2-Dichloroethane-d4	106		70-125	%REC	20	2/19/2009 07:51 PM
Surr: 4-Bromofluorobenzene	95.2		72-125	%REC	20	2/19/2009 07:51 PM
Surr: Dibromofluoromethane	103		71-125	%REC	20	2/19/2009 07:51 PM
Surr: Toluene-d8	96.3		75-125	%REC	20	2/19/2009 07:51 PM
REACTIVE CYANIDE			SW-846			Analyst: HN
Reactive Cyanide	ND		40.0	mg/Kg	1	2/20/2009
REACTIVE SULFIDE			SW-846			Analyst: HN
Reactive Sulfide	ND		40.0	mg/Kg	1	2/20/2009
IGNITABILITY			SW1030			Analyst: TDW
Ignitability, Solid	Negative			no unit	1	2/26/2009 11:00 AM
PH			SW9045B			Analyst: TDW
pH	8.02		0.100	pH Units	1	2/23/2009 04:00 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- a - Not accredited

- S - Spike Recovery outside accepted recovery limits
- P - Dual Column results percent difference > 40%
- E - Value above quantitation range
- H - Analyzed outside of Hold Time
- n - Not offered for accreditation



Chain of Custody Form

ALS Laboratory Group
3352 128th Ave.
Holland, MI 49424-9263
Tel: +1 616 399 6070
Fax: +1 616 399 6185

Page of

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2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group, The Chain of Custody is a local document. All information must be completed accurately.

Chavez, Carl J, EMNRD

From: Strange, Aaron [aaron.strange@hollycorp.com]
Sent: Tuesday, November 17, 2009 2:05 PM
To: Kim Flowers; Chavez, Carl J, EMNRD
Subject: Request for waste approval
Attachments: Hydrogen Unit Soil.pdf

Kim,

Please see the attachment requesting the approval of Hydrogen Unit Soil from the Artesia Plant.

Thanks,

Aaron Strange
Environmental Technician, Senior
Environmental Department
Navajo Refining Co, LLC
Artesia NM
Off: (575) 746-5468
Cell: (575) 703-5057

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This inbound email has been scanned for malicious software and transmitted safely to you using Webroot Email Security.

**CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL**

COMPANY / GENERATOR: Navajo Refining Co.

ADDRESS: 501 E Main Artesia NM 88210

GENERATING SITE: Artesia Plant

COUNTY Eddy STATE NM
TYPE OF WASTE: Excavated Soil/Contaminated Soil

ESTIMATED VOLUME: 900 yds

GENERATING PROCESS: Excavated Soil for Hydrogen Unit

REMARKS: _____

NMOCD FACILITY: CRI

TRUCKING COMPANY: S Brothers

As a condition of acceptance for disposal, I hereby certify that this waste is A non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AGENT: Aaron Strange
SIGNATURE

NAME: Aaron Strange
PRINTED

ADDRESS: 501 E Main Artesia NM

DATE: 11-17-09

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised March 12, 2007

*Surface Waste Management Facility
Operator
and Generator shall maintain and make this
documentation available for Division
inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address: Navajo Refining Co.
2. Originating Site: Artesia Plant
3. Location of Material (Street Address, City, State or ULSTR): 501 E Main Artesia NM
4. Source and Description of Waste: Excavated soil for Hydrogen Unit.
Estimated Volume <u>900</u> yd ³ / bbls Known Volume (to be entered by the operator at the end of the haul) _____ yd ³ / bbls
5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS I, <u>Aaron Strange</u> , representative or authorized agent for <u>Navajo Refining Co.</u> do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification) ☐ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. <u>Operator Use Only. Waste Acceptance Frequency</u> ☐ Monthly ☐ Weekly ☐ Per Load ☒ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items) ☐ MSDS Information ☒ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4) GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS I, <u>_____</u> , representative for <u>_____</u> do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.
5. Transporter: S Brothers

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #:

Address of Facility:

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☐ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☐ APPROVED

☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME: _____

TITLE: _____

DATE: _____

SIGNATURE: _____
Surface Waste Management Facility Authorized Agent

TELEPHONE NO.: _____

e-Lab Analytical, Inc.

Date: February 27, 2008

Client: Navajo Refining Company

Project: Disposal

Work Order: 0802274

Sample ID: Gary Davis HP

Lab ID: 0802274-01

Collection Date: 2/13/2008 3:00:00 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP METALS, ICP						
			SW1311/6020		Prep Date: 2/19/2008	Analyst: ALR
Arsenic	ND		0.0500	mg/L	10	2/20/2008 2:01:00 AM
Barium	0.483		0.0500	mg/L	10	2/20/2008 2:01:00 AM
Cadmium	ND		0.0500	mg/L	10	2/20/2008 2:01:00 AM
Chromium	ND		0.0500	mg/L	10	2/20/2008 2:01:00 AM
Lead	0.141		0.0500	mg/L	10	2/20/2008 2:01:00 AM
Selenium	ND		0.0500	mg/L	10	2/20/2008 2:01:00 AM
Silver	ND		0.0500	mg/L	10	2/20/2008 2:01:00 AM
TCLP SEMIVOLATILES						
			SW1311/8270		Prep Date: 2/19/2008	Analyst: ACN
2,4,5-Trichlorophenol	ND		5.0	µg/L	1	2/20/2008 9:59:00 AM
2,4,6-Trichlorophenol	ND		5.0	µg/L	1	2/20/2008 9:59:00 AM
2,4-Dinitrotoluene	ND		5.0	µg/L	1	2/20/2008 9:59:00 AM
Cresols, Total	ND		30	µg/L	1	2/20/2008 9:59:00 AM
Hexachlorobenzene	ND		5.0	µg/L	1	2/20/2008 9:59:00 AM
Hexachlorobutadiene	ND		5.0	µg/L	1	2/20/2008 9:59:00 AM
Hexachloroethane	ND		5.0	µg/L	1	2/20/2008 9:59:00 AM
Nitrobenzene	ND		5.0	µg/L	1	2/20/2008 9:59:00 AM
Pentachlorophenol	ND		5.0	µg/L	1	2/20/2008 9:59:00 AM
Pyridine	ND		5.0	µg/L	1	2/20/2008 9:59:00 AM
Surr: 2,4,6-Tribromophenol	63.7		42-124	%REC	1	2/20/2008 9:59:00 AM
Surr: 2-Fluorobiphenyl	71.7		48-120	%REC	1	2/20/2008 9:59:00 AM
Surr: 2-Fluorophenol	62.1		20-120	%REC	1	2/20/2008 9:59:00 AM
Surr: 4-Terphenyl-d14	73.1		51-135	%REC	1	2/20/2008 9:59:00 AM
Surr: Nitrobenzene-d5	63.2		41-120	%REC	1	2/20/2008 9:59:00 AM
Surr: Phenol-d6	69.3		20-120	%REC	1	2/20/2008 9:59:00 AM
TCLP VOLATILES						
			SW1311/8260B		Prep Date: 2/18/2008	Analyst: PC
1,1-Dichloroethene	ND		100	µg/L	20	2/19/2008 10:42:00 PM
1,2-Dichloroethane	ND		100	µg/L	20	2/19/2008 10:42:00 PM
1,4-Dichlorobenzene	ND		100	µg/L	20	2/19/2008 10:42:00 PM
2-Butanone	ND		200	µg/L	20	2/19/2008 10:42:00 PM
Benzene	ND		100	µg/L	20	2/19/2008 10:42:00 PM
Carbon tetrachloride	ND		100	µg/L	20	2/19/2008 10:42:00 PM
Chlorobenzene	ND		100	µg/L	20	2/19/2008 10:42:00 PM
Chloroform	ND		100	µg/L	20	2/19/2008 10:42:00 PM
Tetrachloroethene	ND		100	µg/L	20	2/19/2008 10:42:00 PM
Trichloroethene	ND		100	µg/L	20	2/19/2008 10:42:00 PM
Vinyl chloride	ND		100	µg/L	20	2/19/2008 10:42:00 PM
Surr: 1,2-Dichloroethane-d4	98.0		70-125	%REC	20	2/19/2008 10:42:00 PM
Surr: 4-Bromofluorobenzene	98.5		72-125	%REC	20	2/19/2008 10:42:00 PM

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 P - Dual Column results percent difference > 40%
 E - Value above quantitation range
 H - Analyzed outside of Hold Time

e-Lab Analytical, Inc.

Date: February 27, 2008

Client: Navajo Refining Company

Project: Disposal

Work Order: 0802274

Sample ID: Gary Davis HP

Lab ID: 0802274-01

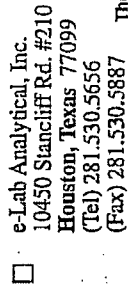
Collection Date: 2/13/2008 3:00:00 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Dibromofluoromethane	103		71-125	%REC	20	2/19/2008 10:42:00 PM
Surr: Toluene-d8	103		75-125	%REC	20	2/19/2008 10:42:00 PM
CYANIDE, REACTIVE			SW-846			Analyst: MAG
Reactive Cyanide	ND		40.0	mg/Kg	1	2/21/2008
SULFIDE, REACTIVE			SW-846			Analyst: MAG
Reactive Sulfide	ND		40.0	mg/Kg	1	2/21/2008
ANIONS BY ION CHROMATOGRAPHY - SOIL			E300		Prep Date: 2/15/2008	Analyst: PV
Chloride	200		4.85	mg/Kg	1	2/15/2008 9:17:00 PM
Surr: Selenate (surr)	98.1		85-115	%REC	1	2/15/2008 9:17:00 PM
IGNITABILITY FOR SOLIDS			SW846, CHPT. 7.1.2			Analyst: MAM
Burns vigorously and persistently	No				1	2/18/2008 10:30:00 AM
Ignites spontaneously	No				1	2/18/2008 10:30:00 AM
Ignites through friction	No				1	2/18/2008 10:30:00 AM
Ignites under std. temp and pressure	No				1	2/18/2008 10:30:00 AM
Ignites with moisture	No				1	2/18/2008 10:30:00 AM
PAINT FILTER TEST			SW9095A			Analyst: KKP
Free Liquid	Negative			Pos/Neg	1	2/18/2008 10:00:00 AM
PH IN SOLID			SW9045B			Analyst: MAM
pH	8.19		0.100	pH Units	1	2/18/2008 12:00:00 PM

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 P - Dual Column results percent difference > 40%
 E - Value above quantitation range
 H - Analyzed outside of Hold Time



Chain of Custody Form

e-Lab Analytical, Inc.
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185



The Chain of Custody is a Legal Document. All Information must be completed accurately.

Customer Information						Project Information						Parameter/Method Request for Analysis										
Purchase Order		Project Name	Disposal	A	TCLP VOA's																	
Work Order		Project Number		B	" Semi VOA's																	
Company Name	Navaid	Blank Company		C	" Metals																	
Sending To	Aaron Strange	Employee Attn		D	RCE																	
Address		Address		E	Paint Filter test																	
				F	Total Chlorides																	
City/State/Zip		City/State/Zip		G																		
Phone		Phone		H																		
Fax		Fax		I																		
E-Mail Address		E-Mail Address		J																		
No.	Sample Description	Date	Time	Matrix	#Batches	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Hold
1	Gary Davis HP	7/13/08	1500	S	Y	1	X	X	X	X	X											
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

Requisitioned by: Chamara Brown Date: 7/13/08 Time: 1615

Relinquished by: [Signature] Date: 7/13/08 Time: 1615

Shipment Method: Fed Ex

Required Turnaround Time: Check Box: ☐ Other: 2 Wk Down ☒ 2 Wk Down ☐ 2 Wk Down

Results Due Date: _____

Notes: _____

QC Package: (check One Box Below)

☐ Level II Std QC ☐ TRAP Checklist

☐ Level III Std QC/Raw Data ☐ TRAP Level IV

☐ Level IV SW846/CLP ☐ Other: _____

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to e-Lab Analytical, Inc.

ALS Laboratory Group

Date: 31-Jan-09

Client: Navajo Refining Company
Project: Gary Davis
Sample ID: Hydrogen Unit Fire Line Soil
Collection Date: 1/22/2009 02:35 PM

Work Order: 0901429
Lab ID: 0901429-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY						
Mercury	ND		SW7470 0.000200	mg/L	Prep Date: 1/28/2009 1	Analyst: JCJ 1/28/2009 04:45 PM
TCLP METALS						
Arsenic	ND		SW1311/6020 0.0500	mg/L	Prep Date: 1/26/2009 10	Analyst: ALR 1/27/2009 02:07 PM
Barium	5.77		0.0500	mg/L	10	1/27/2009 02:07 PM
Cadmium	ND		0.0500	mg/L	10	1/27/2009 02:07 PM
Chromium	ND		0.0500	mg/L	10	1/27/2009 02:07 PM
Lead	ND		0.0500	mg/L	10	1/27/2009 02:07 PM
Selenium	ND		0.0500	mg/L	10	1/27/2009 02:07 PM
Silver	ND		0.0500	mg/L	10	1/27/2009 02:07 PM
TCLP SEMIVOLATILES						
2,4,5-Trichlorophenol	ND		SW1311/8270 0.0050	mg/L	Prep Date: 1/24/2009 1	Analyst: ACN 1/27/2009 02:11 PM
2,4,6-Trichlorophenol	ND		0.0050	mg/L	1	1/27/2009 02:11 PM
2,4-Dinitrotoluene	ND		0.0050	mg/L	1	1/27/2009 02:11 PM
Cresols, Total	ND		0.015	mg/L	1	1/27/2009 02:11 PM
Hexachlorobenzene	ND		0.0050	mg/L	1	1/27/2009 02:11 PM
Hexachlorobutadiene	ND		0.0050	mg/L	1	1/27/2009 02:11 PM
Hexachloroethane	ND		0.0050	mg/L	1	1/27/2009 02:11 PM
Nitrobenzene	ND		0.0050	mg/L	1	1/27/2009 02:11 PM
Pentachlorophenol	ND		0.0050	mg/L	1	1/27/2009 02:11 PM
Pyridine	ND		0.0050	mg/L	1	1/27/2009 02:11 PM
Surr: 2,4,6-Tribromophenol	56.2		42-124	%REC	1	1/27/2009 02:11 PM
Surr: 2-Fluorobiphenyl	48.2		48-120	%REC	1	1/27/2009 02:11 PM
Surr: 2-Fluorophenol	44.0		20-120	%REC	1	1/27/2009 02:11 PM
Surr: 4-Terphenyl-d14	70.5		51-135	%REC	1	1/27/2009 02:11 PM
Surr: Nitrobenzene-d5	44.2		41-120	%REC	1	1/27/2009 02:11 PM
Surr: Phenol-d6	47.1		20-120	%REC	1	1/27/2009 02:11 PM
TCLP VOLATILES						
1,1-Dichloroethene	ND		SW1311/8260B 0.10	mg/L	Prep Date: 1/23/2009 20	Analyst: PC 1/29/2009 04:20 AM
1,2-Dichloroethane	ND		0.10	mg/L	20	1/29/2009 04:20 AM
1,4-Dichlorobenzene	ND		0.10	mg/L	20	1/29/2009 04:20 AM
2-Butanone	ND		0.20	mg/L	20	1/29/2009 04:20 AM
Benzene	ND		0.10	mg/L	20	1/29/2009 04:20 AM
Carbon tetrachloride	ND		0.10	mg/L	20	1/29/2009 04:20 AM
Chlorobenzene	ND		0.10	mg/L	20	1/29/2009 04:20 AM
Chloroform	ND		0.10	mg/L	20	1/29/2009 04:20 AM
Tetrachloroethene	ND		0.10	mg/L	20	1/29/2009 04:20 AM
Trichloroethene	ND		0.10	mg/L	20	1/29/2009 04:20 AM

Qualifiers:
 ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level
 a - Not accredited

S - Spike Recovery outside accepted recovery limits
 P - Dual Column results percent difference > 40%
 E - Value above quantitation range
 H - Analyzed outside of Hold Time
 n - Not offered for accreditation

ALS Laboratory Group

Date: 31-Jan-09

Client: Navajo Refining Company

Project: Gary Davis

Work Order: 0901429

Sample ID: Hydrogen Unit Fire Line Soil

Lab ID: 0901429-01

Collection Date: 1/22/2009 02:35 PM

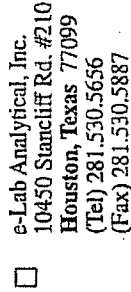
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Vinyl chloride	ND		0.10	mg/L	20	1/29/2009 04:20 AM
Surr: 1,2-Dichloroethane-d4	99.0		70-125	%REC	20	1/29/2009 04:20 AM
Surr: 4-Bromofluorobenzene	109		72-125	%REC	20	1/29/2009 04:20 AM
Surr: Dibromofluoromethane	105		71-125	%REC	20	1/29/2009 04:20 AM
Surr: Toluene-d8	108		75-125	%REC	20	1/29/2009 04:20 AM
REACTIVE CYANIDE			SW-846			Analyst: HN
Reactive Cyanide	ND		40.0	mg/Kg	1	1/28/2009
REACTIVE SULFIDE			SW-846			Analyst: HN
Reactive Sulfide	ND		40.0	mg/Kg	1	1/28/2009
IGNITABILITY			SW1030			Analyst: TDW
Ignitability, Solid	Negative			no unit	1	1/26/2009 12:00 PM
PH			SW9045B			Analyst: TDW
pH	8.45		0.100	pH Units	1	1/23/2009 12:30 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- a - Not accredited

- S - Spike Recovery outside accepted recovery limits
- P - Dual Column results percent difference > 40%
- E - Value above quantitation range
- H - Analyzed outside of Hold Time
- n - Not offered for accreditation



Chain of Custody Form

Page 7 of 11

The Chain of Custody is a Legal Document. All Information must be completed accurately.

☐ e-Lab Analytical, Inc.
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

[illegible]

Note: 1 Any changes must be made in writing once samples and COC Form have been submitted to e-Lab Analytical, Inc.

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REFINING COMPANY, LLC

FAX

(575) 746-5283 DIV. ORDERS
(575) 746-5481 TRUCKING
(575) 746-5458 PERSONNEL

RECEIVED

2009 AUG 5 11 38
501 EAST MAIN STREET • P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159
TELEPHONE (575) 748-3311

FAX

(575) 746-5419 ACCOUNTING
(575) 746-5451 ENV/PURCH/MKTG
(575) 746-5421 ENGINEERING

July 31, 2009

Ms. Hope Monzeglio
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Drive East, Bldg 1
Santa Fe, NM 87505-6303

COPY

**RE: DISSOLVED AIR FLOTATION ANALYTICAL DATA
NAVAJO REFINING COMPANY, ARTESIA REFINERY
EPA ID# NMD048918817
HWB-NRC-MISC**

Dear Ms. Monzeglio,

Enclosed, please find Navajo Refining Company's quarterly analysis for our Dissolved Air Flotation (DAF). If there are any questions concerning this submission, please contact me at 575-746-5281.

Sincerely,
NAVAJO REFINING COMPANY, LLC

Darrell Moore
Environmental Manager for Water and Waste

Cc: Carl Chavez, NMOCD

File: Dissolved Air Flotation Analytical 7A05

ALS Laboratory Group

Date: 22-Jul-09

Client: Navajo Refining Company

Project: DAF

Work Order: 0907179

Sample ID: DAF

Lab ID: 0907179-01

Collection Date: 7/7/2009 11:15 AM

Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY			SW7470			
Mercury	ND		0.000200	mg/L	1	Prep Date: 7/13/2009 Analyst: JCJ 7/13/2009 03:01 PM
TCLP METALS			SW1311/6020			
Arsenic	0.150		0.0500	mg/L	10	Prep Date: 7/10/2009 Analyst: SKS 7/10/2009 10:15 PM
Barium	ND		0.0500	mg/L	10	7/10/2009 10:15 PM
Cadmium	ND		0.0500	mg/L	10	7/10/2009 10:15 PM
Chromium	ND		0.0500	mg/L	10	7/10/2009 10:15 PM
Lead	ND		0.0500	mg/L	10	7/10/2009 10:15 PM
Selenium	0.0580		0.0500	mg/L	10	7/10/2009 10:15 PM
Silver	ND		0.0500	mg/L	10	7/10/2009 10:15 PM
TCLP SEMIVOLATILES			SW1311/8270			
2,4,5-Trichlorophenol	ND		5.0	µg/L	1	Prep Date: 7/9/2009 Analyst: ACN 7/10/2009 05:39 PM
2,4,6-Trichlorophenol	ND		5.0	µg/L	1	7/10/2009 05:39 PM
2,4-Dinitrotoluene	ND		5.0	µg/L	1	7/10/2009 05:39 PM
Cresols, Total	220		30	µg/L	2	7/14/2009 06:33 PM
Hexachlorobenzene	ND		5.0	µg/L	1	7/10/2009 05:39 PM
Hexachlorobutadiene	ND		5.0	µg/L	1	7/10/2009 05:39 PM
Hexachloroethane	ND		5.0	µg/L	1	7/10/2009 05:39 PM
Nitrobenzene	ND		5.0	µg/L	1	7/10/2009 05:39 PM
Pentachlorophenol	ND		5.0	µg/L	1	7/10/2009 05:39 PM
Pyridine	ND		5.0	µg/L	1	7/10/2009 05:39 PM
Surr: 2,4,6-Tribromophenol	83.7		42-124	%REC	2	7/14/2009 06:33 PM
Surr: 2,4,6-Tribromophenol	94.8		42-124	%REC	1	7/10/2009 05:39 PM
Surr: 2-Fluorobiphenyl	78.9		48-120	%REC	2	7/14/2009 06:33 PM
Surr: 2-Fluorobiphenyl	59.3		48-120	%REC	1	7/10/2009 05:39 PM
Surr: 2-Fluorophenol	66.3		20-120	%REC	1	7/10/2009 05:39 PM
Surr: 2-Fluorophenol	76.9		20-120	%REC	2	7/14/2009 06:33 PM
Surr: 4-Terphenyl-d14	74.4		51-135	%REC	2	7/14/2009 06:33 PM
Surr: 4-Terphenyl-d14	66.0		51-135	%REC	1	7/10/2009 05:39 PM
Surr: Nitrobenzene-d5	81.0		41-120	%REC	2	7/14/2009 06:33 PM
Surr: Nitrobenzene-d5	69.5		41-120	%REC	1	7/10/2009 05:39 PM
Surr: Phenol-d6	77.4		20-120	%REC	2	7/14/2009 06:33 PM
Surr: Phenol-d6	70.3		20-120	%REC	1	7/10/2009 05:39 PM
TCLP VOLATILES			SW1311/8260B			
1,1-Dichloroethene	ND		100	µg/L	20	Prep Date: 7/8/2009 Analyst: PC 7/11/2009 07:05 PM
1,2-Dichloroethane	ND		100	µg/L	20	7/11/2009 07:05 PM
1,4-Dichlorobenzene	ND		100	µg/L	20	7/11/2009 07:05 PM
2-Butanone	ND		200	µg/L	20	7/11/2009 07:05 PM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: 22-Jul-09

Client: Navajo Refining Company

Project: DAF

Work Order: 0907179

Sample ID: DAF

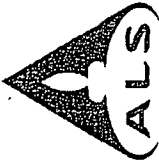
Lab ID: 0907179-01

Collection Date: 7/7/2009 11:15 AM

Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzene	ND		100	µg/L	20	7/11/2009 07:05 PM
Carbon tetrachloride	ND		100	µg/L	20	7/11/2009 07:05 PM
Chlorobenzene	ND		100	µg/L	20	7/11/2009 07:05 PM
Chloroform	ND		100	µg/L	20	7/11/2009 07:05 PM
Tetrachloroethene	ND		100	µg/L	20	7/11/2009 07:05 PM
Trichloroethene	ND		100	µg/L	20	7/11/2009 07:05 PM
Vinyl chloride	ND		100	µg/L	20	7/11/2009 07:05 PM
Surr: 1,2-Dichloroethane-d4	104		70-125	%REC	20	7/11/2009 07:05 PM
Surr: 4-Bromofluorobenzene	93.1		72-125	%REC	20	7/11/2009 07:05 PM
Surr: Dibromofluoromethane	104		71-125	%REC	20	7/11/2009 07:05 PM
Surr: Toluene-d8	96.6		75-125	%REC	20	7/11/2009 07:05 PM
REACTIVE CYANIDE			SW-846			Analyst: HN
Reactive Cyanide	ND		40.0	mg/Kg	1	7/14/2009
REACTIVE SULFIDE			SW-846			Analyst: HN
Reactive Sulfide	ND		40.0	mg/Kg	1	7/14/2009
IGNITABILITY			SW1030			Analyst: TDW
Ignitability, Solid	Negative			no unit	1	7/20/2009 04:00 PM
PH			SW9045B			Analyst: TDW
pH	7.75		0.100	pH Units	1	7/11/2009 11:00 AM

Note: See Qualifiers Page for a list of qualifiers and their explanation.



ALS Laboratory Group
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

Chain of Custody Form

ALS Laboratory Group
3352 128th Ave.
Holland, MI 49424-9263
Tel. +1 616 399 6070
Fax: +1 616 399 6185

Page 1 of 1

Customer Information				Project Information				ALS Work Order #: 000777											
Parameter/Method Request for Analysis				ALS Project Manager:				Parameter/Method Request for Analysis											
Project Name				DAF				TCLP VOAS											
Project Number								TCLP semivocals											
Bill To Company				Navajo Refining Co.				TCLP metals											
Invoice Attn				Aaron Strange				RCI											
Address				P.O. Box 159															
City/State/Zip				Artesia NM 88211															
Phone																			
Fax																			
e-Mail Address																			
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	DAF	7/7/09	1115	S	Y	1	X	X	X	X									
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
Aaron Strange		Fed Ex		☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour			
Relinquished by:		Received by:		Notes:			
Relinquished by:		Received by:		Notes:			
Logged by (Laboratory):		Checked by (Laboratory):		Cooler ID:		Cooler Temp:	
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NAOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5085		Time: 7/7/09 1615		Time: 7/8/09 9:22		QC Package: (Check One Box Below)	
						☐ Level II Std QC ☐ TRAP Checklist	
						☐ Level III Std QC/Raw Date ☐ TRAP Level IV	
						☐ Level IV SW846/CLP ☐ Other	

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3. The Chain of Custody is a legal document. All information must be completed accurately.

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Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, July 23, 2009 9:28 AM
To: Monzeglio, Hope, NMENV
Cc: 'Moore, Darrell'
Subject: RE: DAF sampling

Hope:

Yes, OCD should also be copied on this sampling as we are placing the info. into our OCD Online system at "GW-28."
Thanks for the communication Hope.

By receipt of this e-mail, Darrell, please copy the OCD on this. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/oed/index.htm>
(Pollution Prevention Guidance is under "Publications")

From: Monzeglio, Hope, NMENV
Sent: Thursday, July 23, 2009 8:57 AM
To: Chavez, Carl J, EMNRD
Subject: FW:

Carl

NMED has Navajo collecting quarterly samples on the DAF. Here are the most recent results. I think OCD was interested in these?

Hope

From: Moore, Darrell [<mailto:Darrell.Moore@hollycorp.com>]
Sent: Thursday, July 23, 2009 7:51 AM
To: Monzeglio, Hope, NMENV
Subject:

Hope,

Attached are the latest results for our DAF analysis that is required every quarter. Hard copy to follow.

Darrell Moore
Environmental Manager for Water and Waste
Navajo Refining Company, LLC
Phone Number 575-746-5281
Cell Number 575-703-5058
Fax Number 575-746-5451

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ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES



Environmental Division

22-Jul-2009

Aaron Strange
Navajo Refining Company
PO Box 159
Artesia, NM 88211

Tel: (575) 746-5468
Fax: (575) 746-5421

Re: DAF

Work Order: 0907179

Dear Aaron,

ALS Laboratory Group received 1 sample on 08-Jul-2009 09:20 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Laboratory Group and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 27.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

JayLynn F Thibault

Electronically approved by: Glenda H. Ramos

JayLynn F Thibault
Project Manager



Certificate No: T104704231-08-TX

ALS Group USA, Corp.

Part of the **ALS Laboratory Group**

10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338

Phone: (281) 530-5656 Fax: (281) 530-5887

www.alsglobal.com www.elabi.com

A Campbell Brothers Limited Company

Client: Navajo Refining Company
 Project: DAF
 Work Order: 0907179

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0907179-01	DAF	Solid		7/7/2009 11:15	7/8/2009 09:20	☐

ALS Laboratory Group*Date: 22-Jul-09***Client:** Navajo Refining Company**Project:** DAF**Work Order:** 0907179**Case Narrative**

Batch R79013 Volatiles (Sample 0907053-02)MS/MSD unrelated sample.

Batch 37018 Semivolatiles LCSD recovery out of control limits for Total cresol.

ALS Laboratory Group

Date: 22-Jul-09

Client: Navajo Refining Company

Project: DAF

Work Order: 0907179

Sample ID: DAF

Lab ID: 0907179-01

Collection Date: 7/7/2009 11:15 AM

Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY			SW7470			
Mercury	ND		0.000200	mg/L	1	Prep Date: 7/13/2009 Analyst: JCJ 7/13/2009 03:01 PM
TCLP METALS			SW1311/6020			
Arsenic	0.150		0.0500	mg/L	10	Prep Date: 7/10/2009 Analyst: SKS 7/10/2009 10:15 PM
Barium	ND		0.0500	mg/L	10	7/10/2009 10:15 PM
Cadmium	ND		0.0500	mg/L	10	7/10/2009 10:15 PM
Chromium	ND		0.0500	mg/L	10	7/10/2009 10:15 PM
Lead	ND		0.0500	mg/L	10	7/10/2009 10:15 PM
Selenium	0.0580		0.0500	mg/L	10	7/10/2009 10:15 PM
Silver	ND		0.0500	mg/L	10	7/10/2009 10:15 PM
TCLP SEMIVOLATILES			SW1311/8270			
2,4,5-Trichlorophenol	ND		5.0	µg/L	1	Prep Date: 7/9/2009 Analyst: ACN 7/10/2009 05:39 PM
2,4,6-Trichlorophenol	ND		5.0	µg/L	1	7/10/2009 05:39 PM
2,4-Dinitrotoluene	ND		5.0	µg/L	1	7/10/2009 05:39 PM
Cresols, Total	220		30	µg/L	2	7/14/2009 06:33 PM
Hexachlorobenzene	ND		5.0	µg/L	1	7/10/2009 05:39 PM
Hexachlorobutadiene	ND		5.0	µg/L	1	7/10/2009 05:39 PM
Hexachloroethane	ND		5.0	µg/L	1	7/10/2009 05:39 PM
Nitrobenzene	ND		5.0	µg/L	1	7/10/2009 05:39 PM
Pentachlorophenol	ND		5.0	µg/L	1	7/10/2009 05:39 PM
Pyridine	ND		5.0	µg/L	1	7/10/2009 05:39 PM
Surr: 2,4,6-Tribromophenol	83.7		42-124	%REC	2	7/14/2009 06:33 PM
Surr: 2,4,6-Tribromophenol	94.8		42-124	%REC	1	7/10/2009 05:39 PM
Surr: 2-Fluorobiphenyl	78.9		48-120	%REC	2	7/14/2009 06:33 PM
Surr: 2-Fluorobiphenyl	59.3		48-120	%REC	1	7/10/2009 05:39 PM
Surr: 2-Fluorophenol	66.3		20-120	%REC	1	7/10/2009 05:39 PM
Surr: 2-Fluorophenol	76.9		20-120	%REC	2	7/14/2009 06:33 PM
Surr: 4-Terphenyl-d14	74.4		51-135	%REC	2	7/14/2009 06:33 PM
Surr: 4-Terphenyl-d14	66.0		51-135	%REC	1	7/10/2009 05:39 PM
Surr: Nitrobenzene-d5	81.0		41-120	%REC	2	7/14/2009 06:33 PM
Surr: Nitrobenzene-d5	69.5		41-120	%REC	1	7/10/2009 05:39 PM
Surr: Phenol-d6	77.4		20-120	%REC	2	7/14/2009 06:33 PM
Surr: Phenol-d6	70.3		20-120	%REC	1	7/10/2009 05:39 PM
TCLP VOLATILES			SW1311/8260B			
1,1-Dichloroethene	ND		100	µg/L	20	Prep Date: 7/8/2009 Analyst: PC 7/11/2009 07:05 PM
1,2-Dichloroethane	ND		100	µg/L	20	7/11/2009 07:05 PM
1,4-Dichlorobenzene	ND		100	µg/L	20	7/11/2009 07:05 PM
2-Butanone	ND		200	µg/L	20	7/11/2009 07:05 PM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: 22-Jul-09

Client: Navajo Refining Company

Project: DAF

Work Order: 0907179

Sample ID: DAF

Lab ID: 0907179-01

Collection Date: 7/7/2009 11:15 AM

Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzene	ND		100	µg/L	20	7/11/2009 07:05 PM
Carbon tetrachloride	ND		100	µg/L	20	7/11/2009 07:05 PM
Chlorobenzene	ND		100	µg/L	20	7/11/2009 07:05 PM
Chloroform	ND		100	µg/L	20	7/11/2009 07:05 PM
Tetrachloroethene	ND		100	µg/L	20	7/11/2009 07:05 PM
Trichloroethene	ND		100	µg/L	20	7/11/2009 07:05 PM
Vinyl chloride	ND		100	µg/L	20	7/11/2009 07:05 PM
Surr: 1,2-Dichloroethane-d4	104		70-125	%REC	20	7/11/2009 07:05 PM
Surr: 4-Bromofluorobenzene	93.1		72-125	%REC	20	7/11/2009 07:05 PM
Surr: Dibromofluoromethane	104		71-125	%REC	20	7/11/2009 07:05 PM
Surr: Toluene-d8	96.6		75-125	%REC	20	7/11/2009 07:05 PM
REACTIVE CYANIDE			SW-846			Analyst: HN
Reactive Cyanide	ND		40.0	mg/Kg	1	7/14/2009
REACTIVE SULFIDE			SW-846			Analyst: HN
Reactive Sulfide	ND		40.0	mg/Kg	1	7/14/2009
IGNITABILITY			SW1030			Analyst: TDW
Ignitability, Solid	Negative			no unit	1	7/20/2009 04:00 PM
PH			SW9045B			Analyst: TDW
pH	7.75		0.100	pH Units	1	7/11/2009 11:00 AM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: 22-Jul-09

Client: Navajo Refining Company
Work Order: 0907179
Project: DAF

QC BATCH REPORT

Batch ID: 37032 Instrument ID ICP7500 Method: SW1311/6020

MBLK Sample ID: MBLKT1-070909-37032 Units: mg/L Analysis Date: 7/10/2009 09:03 PM

Client ID: Run ID: ICP7500_090710A SeqNo: 1716464 Prep Date: 7/10/2009 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050								
Barium	ND	0.050								
Cadmium	ND	0.050								
Chromium	ND	0.050								
Lead	ND	0.050								
Selenium	ND	0.050								
Silver	ND	0.050								

MBLK Sample ID: MBLKW4-071009-37032 Units: mg/L Analysis Date: 7/10/2009 09:09 PM

Client ID: Run ID: ICP7500_090710A SeqNo: 1716466 Prep Date: 7/10/2009 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050								
Barium	ND	0.050								
Cadmium	ND	0.050								
Chromium	ND	0.050								
Lead	ND	0.050								
Selenium	ND	0.050								
Silver	ND	0.050								

LCS Sample ID: MLCW4-071009-37032 Units: mg/L Analysis Date: 7/10/2009 09:33 PM

Client ID: Run ID: ICP7500_090710A SeqNo: 1716474 Prep Date: 7/10/2009 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.2765	0.050	0.25	0	111	80-120	0			
Barium	0.2704	0.050	0.25	0	108	80-120	0			
Cadmium	0.2644	0.050	0.25	0	106	80-120	0			
Chromium	0.2409	0.050	0.25	0	96.4	80-120	0			
Lead	0.2608	0.050	0.25	0	104	80-120	0			
Selenium	0.2818	0.050	0.25	0	113	80-120	0			
Silver	0.2624	0.050	0.25	0	105	80-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 0907179
 Project: DAF

QC BATCH REPORT

Batch ID: 37032 Instrument ID ICP7500 Method: SW1311/6020

MS Sample ID: 0907154-03AMS Units: mg/L Analysis Date: 7/10/2009 09:51 PM

Client ID: Run ID: ICP7500_090710A SeqNo: 1716482 Prep Date: 7/10/2009 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.2703	0.050	0.25	0.003507	107	75-125	0			
Barium	1.164	0.050	0.25	0.9592	81.9	75-125	0			
Cadmium	0.2421	0.050	0.25	-0.001814	97.6	75-125	0			
Chromium	0.2378	0.050	0.25	0.009216	91.4	75-125	0			
Lead	0.2551	0.050	0.25	0.004926	100	75-125	0			
Selenium	0.27	0.050	0.25	0.002086	107	75-125	0			
Silver	0.2274	0.050	0.25	-0.003013	92.2	75-125	0			

MSD Sample ID: 0907154-03AMSD Units: mg/L Analysis Date: 7/10/2009 09:57 PM

Client ID: Run ID: ICP7500_090710A SeqNo: 1716485 Prep Date: 7/10/2009 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.2811	0.050	0.25	0.003507	111	75-125	0.2703	3.92	25	
Barium	1.188	0.050	0.25	0.9592	91.5	75-125	1.164	2.04	25	
Cadmium	0.241	0.050	0.25	-0.001814	97.1	75-125	0.2421	0.455	25	
Chromium	0.2494	0.050	0.25	0.009216	96.1	75-125	0.2378	4.76	25	
Lead	0.2639	0.050	0.25	0.004926	104	75-125	0.2551	3.39	25	
Selenium	0.29	0.050	0.25	0.002086	115	75-125	0.27	7.14	25	
Silver	0.232	0.050	0.25	-0.003013	94	75-125	0.2274	2	25	

DUP Sample ID: 0907154-03ADUP Units: mg/L Analysis Date: 7/10/2009 09:45 PM

Client ID: Run ID: ICP7500_090710A SeqNo: 1716479 Prep Date: 7/10/2009 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050	0	0	0	0-0	0.003507	0	25	
Barium	0.9567	0.050	0	0	0	0-0	0.9592	0.261	25	
Cadmium	ND	0.050	0	0	0	0-0	-0.001814	0	25	
Chromium	0.009158	0.050	0	0	0	0-0	0.009216	0	25	J
Lead	0.005335	0.050	0	0	0	0-0	0.004926	0	25	J
Selenium	ND	0.050	0	0	0	0-0	0.002086	0	25	
Silver	ND	0.050	0	0	0	0-0	-0.003013	0	25	

The following samples were analyzed in this batch:

0907179-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 0907179
 Project: DAF

QC BATCH REPORT

Batch ID: 37056 Instrument ID Mercury Method: SW7470

MBLK Sample ID: GBLKW1-071309-37056 Units: mg/L Analysis Date: 7/13/2009 02:37 PM

Client ID: Run ID: MERCURY_090713A SeqNo: 1716967 Prep Date: 7/13/2009 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

MBLK Sample ID: GBLKT1-071009-37056 Units: mg/L Analysis Date: 7/13/2009 02:59 PM

Client ID: Run ID: MERCURY_090713A SeqNo: 1716975 Prep Date: 7/13/2009 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

LCS Sample ID: GLCSW1-071309-37056 Units: mg/L Analysis Date: 7/13/2009 02:39 PM

Client ID: Run ID: MERCURY_090713A SeqNo: 1716968 Prep Date: 7/13/2009 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00481	0.00020	0.005	0	96.2	80-120	0			

MS Sample ID: 0907249-01AMS Units: mg/L Analysis Date: 7/13/2009 02:47 PM

Client ID: Run ID: MERCURY_090713A SeqNo: 1716971 Prep Date: 7/13/2009 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00722	0.00020	0.005	0.00191	106	75-125	0			

MSD Sample ID: 0907249-01AMSD Units: mg/L Analysis Date: 7/13/2009 02:50 PM

Client ID: Run ID: MERCURY_090713A SeqNo: 1716972 Prep Date: 7/13/2009 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00726	0.00020	0.005	0.00191	107	75-125	0.00722	0.552	20	

DUP Sample ID: 0907249-01ADUP Units: mg/L Analysis Date: 7/13/2009 02:45 PM

Client ID: Run ID: MERCURY_090713A SeqNo: 1716970 Prep Date: 7/13/2009 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00192	0.00020	0	0	0	0-0	0.00191	0.522	20	

The following samples were analyzed in this batch: 0907179-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 0907179
 Project: DAF

QC BATCH REPORT

Batch ID: 37018 Instrument ID SV-3 Method: SW8270

MBLK Sample ID: SBLKT2-090709-37018 Units: µg/L Analysis Date: 7/13/2009 11:06 AM

Client ID: Run ID: SV-3_090713A SeqNo: 1717183 Prep Date: 7/9/2009 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	ND	5.0								
2,4,6-Trichlorophenol	ND	5.0								
2,4-Dinitrotoluene	ND	5.0								
Cresols, Total	ND	5.0								
Hexachlorobenzene	ND	5.0								
Hexachlorobutadiene	ND	5.0								
Hexachloroethane	ND	5.0								
Nitrobenzene	ND	5.0								
Pentachlorophenol	ND	5.0								
Pyridine	ND	5.0								
Surr: 2,4,6-Tribromophenol	77.46	5.0	100	0	77.5	42-124	0			
Surr: 2-Fluorobiphenyl	87.69	5.0	100	0	87.7	48-120	0			
Surr: 2-Fluorophenol	72.44	5.0	100	0	72.4	20-120	0			
Surr: 4-Terphenyl-d14	82.65	5.0	100	0	82.7	51-135	0			
Surr: Nitrobenzene-d5	73.81	5.0	100	0	73.8	41-120	0			
Surr: Phenol-d6	76.13	5.0	100	0	76.1	20-120	0			

LCS Sample ID: SLCST2-090709-37018 Units: µg/L Analysis Date: 7/13/2009 11:30 AM

Client ID: Run ID: SV-3_090713A SeqNo: 1717184 Prep Date: 7/9/2009 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	86.17	5.0	100	0	86.2	52-115	0			
2,4,6-Trichlorophenol	89.84	5.0	100	0	89.8	56-115	0			
2,4-Dinitrotoluene	46.42	5.0	50	0	92.8	56-115	0			
Cresols, Total	218.2	5.0	200	0	109	48-115	0			
Hexachlorobenzene	44.7	5.0	50	0	89.4	54-115	0			
Hexachlorobutadiene	37.97	5.0	50	0	75.9	51-115	0			
Hexachloroethane	37.95	5.0	50	0	75.9	54-115	0			
Nitrobenzene	41.89	5.0	50	0	83.8	40-124	0			
Pentachlorophenol	95.82	5.0	100	0	95.8	45-125	0			
Pyridine	36.73	5.0	50	0	73.5	34-115	0			
Surr: 2,4,6-Tribromophenol	82.51	5.0	100	0	82.5	42-124	0			
Surr: 2-Fluorobiphenyl	82.89	5.0	100	0	82.9	48-120	0			
Surr: 2-Fluorophenol	74.38	5.0	100	0	74.4	20-120	0			
Surr: 4-Terphenyl-d14	79.45	5.0	100	0	79.4	51-135	0			
Surr: Nitrobenzene-d5	79.49	5.0	100	0	79.5	41-120	0			
Surr: Phenol-d6	79.41	5.0	100	0	79.4	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 0907179
 Project: DAF

QC BATCH REPORT

Batch ID: 37018 Instrument ID SV-3 Method: SW8270

LCSD Sample ID: SLCSDT2-090709-37018 Units: µg/L Analysis Date: 7/13/2009 11:54 AM
 Client ID: Run ID: SV-3_090713A SeqNo: 1717185 Prep Date: 7/9/2009 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	93.96	5.0	100	0	94	52-115	86.17	8.65	30	
2,4,6-Trichlorophenol	92.25	5.0	100	0	92.3	56-115	89.84	2.65	30	
2,4-Dinitrotoluene	53.82	5.0	50	0	108	56-115	46.42	14.8	30	
Cresols, Total	235.8	5.0	200	0	118	48-115	218.2	7.76	30	S
Hexachlorobenzene	45.64	5.0	50	0	91.3	54-115	44.7	2.08	30	
Hexachlorobutadiene	39.1	5.0	50	0	78.2	51-115	37.97	2.93	30	
Hexachloroethane	42.19	5.0	50	0	84.4	54-115	37.95	10.6	30	
Nitrobenzene	43.92	5.0	50	0	87.8	40-124	41.89	4.74	30	
Pentachlorophenol	87.28	5.0	100	0	87.3	45-125	95.82	9.33	30	
Pyridine	40.43	5.0	50	0	80.9	34-115	36.73	9.58	30	
Surr: 2,4,6-Tribromophenol	88.7	5.0	100	0	88.7	42-124	82.51	7.24	30	
Surr: 2-Fluorobiphenyl	88.62	5.0	100	0	88.6	48-120	82.89	6.68	30	
Surr: 2-Fluorophenol	81.48	5.0	100	0	81.5	20-120	74.38	9.12	30	
Surr: 4-Terphenyl-d14	80.64	5.0	100	0	80.6	51-135	79.45	1.49	30	
Surr: Nitrobenzene-d5	75.39	5.0	100	0	75.4	41-120	79.49	5.29	30	
Surr: Phenol-d6	83.83	5.0	100	0	83.8	20-120	79.41	5.42	30	

The following samples were analyzed in this batch:

0907179-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 0907179
 Project: DAF

QC BATCH REPORT

Batch ID: **R79013** Instrument ID **VOA2** Method: **SW1311/8260**

MBLK Sample ID: **VBLKW-071109-R79013** Units: **µg/L** Analysis Date: **7/11/2009 01:22 PM**

Client ID: Run ID: **VOA2_090711B** SeqNo: **1716794** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2-Butanone	ND	10								
Benzene	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroform	ND	5.0								
Tetrachloroethene	ND	5.0								
Trichloroethene	ND	5.0								
Vinyl chloride	ND	2.0								
Surr: 1,2-Dichloroethane-d4	53.03	5.0	50	0	106	70-125	0			
Surr: 4-Bromofluorobenzene	48.46	5.0	50	0	96.9	72.4-125	0			
Surr: Dibromofluoromethane	52.07	5.0	50	0	104	71.2-125	0			
Surr: Toluene-d8	49.24	5.0	50	0	98.5	75-125	0			

MBLK Sample ID: **MBLKV2-071009-R79013** Units: **µg/L** Analysis Date: **7/11/2009 05:52 PM**

Client ID: Run ID: **VOA2_090711B** SeqNo: **1716798** Prep Date: **7/10/2009** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	100								
1,2-Dichloroethane	ND	100								
1,4-Dichlorobenzene	ND	100								
2-Butanone	ND	200								
Benzene	ND	100								
Carbon tetrachloride	ND	100								
Chlorobenzene	ND	100								
Chloroform	ND	100								
Tetrachloroethene	ND	100								
Trichloroethene	ND	100								
Vinyl chloride	ND	100								
Surr: 1,2-Dichloroethane-d4	1107	100	1000	0	111	70-125	0			
Surr: 4-Bromofluorobenzene	943.1	100	1000	0	94.3	72.4-125	0			
Surr: Dibromofluoromethane	1068	100	1000	0	107	71.2-125	0			
Surr: Toluene-d8	980.8	100	1000	0	98.1	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 0907179
 Project: DAF

QC BATCH REPORT

Batch ID: R79013 Instrument ID VOA2 Method: SW1311/8260

LCS Sample ID: VLCSW-071109-R79013 Units: µg/L Analysis Date: 7/11/2009 12:33 PM

Client ID: Run ID: VOA2_090711B SeqNo: 1716793 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	49.31	5.0	50	0	98.6	73-124	0			
1,2-Dichloroethane	49.05	5.0	50	0	98.1	76-120	0			
1,4-Dichlorobenzene	45.93	5.0	50	0	91.9	70-130	0			
2-Butanone	93.63	10	100	0	93.6	70-130	0			
Benzene	48.45	5.0	50	0	96.9	70-128	0			
Carbon tetrachloride	52.82	5.0	50	0	106	70-130	0			
Chlorobenzene	47.45	5.0	50	0	94.9	72-127	0			
Chloroform	48.71	5.0	50	0	97.4	70-130	0			
Tetrachloroethene	48.19	5.0	50	0	96.4	70-130	0			
Trichloroethene	50.48	5.0	50	0	101	72-129	0			
Vinyl chloride	44.61	5.0	50	0	89.2	70-130	0			
Surr: 1,2-Dichloroethane-d4	49.85	5.0	50	0	99.7	70-125	0			
Surr: 4-Bromofluorobenzene	49.6	5.0	50	0	99.2	72-125	0			
Surr: Dibromofluoromethane	51.59	5.0	50	0	103	71-125	0			
Surr: Toluene-d8	49.58	5.0	50	0	99.2	75-125	0			

MS Sample ID: 0907053-02AMS Units: µg/L Analysis Date: 7/11/2009 02:11 PM

Client ID: Run ID: VOA2_090711B SeqNo: 1716796 Prep Date: DF: 25

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	1170	120	1250	0	93.6	73-124	0			
1,2-Dichloroethane	1273	120	1250	0	102	76-120	0			
1,4-Dichlorobenzene	1155	120	1250	0	92.4	70-130	0			
2-Butanone	2510	250	2500	0	100	70-130	0			
Benzene	1177	120	1250	0	94.2	70-128	0			
Carbon tetrachloride	5764	120	1250	4870	71.5	70-130	0			E
Chlorobenzene	1157	120	1250	0	92.5	72-127	0			
Chloroform	1698	120	1250	494.9	96.2	70-130	0			
Tetrachloroethene	1318	120	1250	220.1	87.8	70-130	0			
Trichloroethene	1568	120	1250	397.2	93.7	72-129	0			
Vinyl chloride	1038	120	1250	0	83	70-130	0			
Surr: 1,2-Dichloroethane-d4	1311	120	1250	0	105	70-125	0			
Surr: 4-Bromofluorobenzene	1254	120	1250	0	100	72-125	0			
Surr: Dibromofluoromethane	1334	120	1250	0	107	71-125	0			
Surr: Toluene-d8	1264	120	1250	0	101	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 0907179
 Project: DAF

QC BATCH REPORT

Batch ID: **R79013** Instrument ID **VOA2** Method: **SW1311/8260**

MSD Sample ID: **0907053-02AMSD** Units: **µg/L** Analysis Date: **7/11/2009 03:00 PM**

Client ID: Run ID: **VOA2_090711B** SeqNo: **1716797** Prep Date: DF: **25**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	1141	120	1250	0	91.3	73-124	1170	2.49	20	
1,2-Dichloroethane	1266	120	1250	0	101	76-120	1273	0.555	20	
1,4-Dichlorobenzene	1113	120	1250	0	89	70-130	1155	3.68	20	
2-Butanone	2467	250	2500	0	98.7	70-130	2510	1.76	20	
Benzene	1156	120	1250	0	92.5	70-128	1177	1.83	20	
Carbon tetrachloride	5657	120	1250	4870	62.9	70-130	5764	1.88	20	SE
Chlorobenzene	1140	120	1250	0	91.2	72-127	1157	1.45	20	
Chloroform	1686	120	1250	494.9	95.3	70-130	1698	0.719	20	
Tetrachloroethene	1277	120	1250	220.1	84.5	70-130	1318	3.18	20	
Trichloroethene	1558	120	1250	397.2	92.8	72-129	1568	0.653	20	
Vinyl chloride	1010	120	1250	0	80.8	70-130	1038	2.74	20	
Surr: 1,2-Dichloroethane-d4	1337	120	1250	0	107	70-125	1311	1.95	20	
Surr: 4-Bromofluorobenzene	1270	120	1250	0	102	72-125	1254	1.24	20	
Surr: Dibromofluoromethane	1359	120	1250	0	109	71-125	1334	1.85	20	
Surr: Toluene-d8	1261	120	1250	0	101	75-125	1264	0.269	20	

The following samples were analyzed in this batch:

0907179-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
Work Order: 0907179
Project: DAF

QC BATCH REPORT

Batch ID: R78989 Instrument ID WetChem Method: SW9045B

LCS Sample ID: WLCSW1-071109-R78989 Units: pH Units Analysis Date: 7/11/2009 11:00 AM

Client ID: Run ID: WETCHEM_090711A SeqNo: 1715812 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	5.98	0.10	6	0	99.7	90-110	0			

DUP Sample ID: 0907191-01adup Units: pH Units Analysis Date: 7/11/2009 11:00 AM

Client ID: Run ID: WETCHEM_090711A SeqNo: 1715828 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6.25	0.10	0	0	0	0-0	6.24	0.16	20	

The following samples were analyzed in this batch:

0907179-01A

Client: Navajo Refining Company
Work Order: 0907179
Project: DAF

QC BATCH REPORT

Batch ID: **R79352** Instrument ID **WetChem** Method: **SW1030**

DUP Sample ID: **0907179-01adup** Units: **no unit** Analysis Date: **7/20/2009 04:00 PM**

Client ID: **DAF** Run ID: **WETCHEM_090720J** SeqNo: **1723876** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ignitability, Solid	ND	0	0	0	0		0	0		

The following samples were analyzed in this batch:

0907179-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Laboratory Group

Date: 22-Jul-09

Client: Navajo Refining Company
Project: DAF
WorkOrder: 0907179

**QUALIFIERS,
ACRONYMS, UNITS****Qualifier Description**

*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym Description

DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Units Reported Description

µg/L	Micrograms per Liter
mg/Kg	Milligrams per Kilogram
mg/L	Milligrams per Liter
no unit	
pH Units	

Customer Information				Project Information				ALS Project Manager				ALS Work Order #					
Customer Information				Project Information				Parameter/Method Request for Analysis									
Purchase Order		Project Name	DAF	A	TCLP	VOAS											
Work Order		Project Number		B	TCLP	semiVOAS											
Company Name	Navajo Refining Co.	Bill To Company		C	TCLP	metals											
Send Report To	Arden Strange	Invoice Attn		D	RCI												
Address	P.O. Box 159	Address		E													
City/State/Zip	Artesia NM 88211	City/State/Zip		F													
Phone		Phone		G													
Fax		Fax		H													
e-Mail Address		e-Mail Address		I													
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	DAF	7/7/09	1115	S	Y	1	X	X	X	X							
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
Samples Please Print & Sign Arden Strange Received by: <i>Arden Strange</i> Relinquished by:				Shipment Method Fed Ex Received by (Laboratory): <i>Samuel</i> Checked by (Laboratory):				Required Turnaround Time: (Check Box) ☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hrs				Results Due Date:					
Date: 7/7/09 Time: 1615				Date: 7/17/09 Time: 0920				Notes:				QC Package: (Check One Box Below) ☐ Level II Std QC ☐ TRAP Checklist ☐ Level III Std QC/Raw Date ☐ TRAP Level IV ☐ Level IV SW846/CLP ☐ Other					
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₈ 6-NaHSO ₄ 7-Other 8-4°C 9-5035																	

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.

7. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.

2 The Chain of Custody is a legal document. All information must be completed accurately.

Copyright 2008 by ALS Laboratory Group.

ALS Laboratory Group

Sample Receipt Checklist

Client Name: **NAVAJO REFINING**

Date/Time Received: **08-Jul-09 09:20**

Work Order: **0907179**

Received by: **RNG**

Checklist completed by Richard Sanchez
eSignature

08-Jul-09
Date

Reviewed by: Jay Lynn F Thibault
eSignature

09-Jul-09
Date

Matrices: **solid**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	2.7c 002		
Cooler(s)/Kit(s):	1674		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:			
Login Notes:			

=====

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

ORIGIN ID: ROWA (000) 40-3311
NAVAJO REFINING
NAVAJO REFINING COMPANY
501 E. MAIN STREET

ARTESIA, NM 88210
UNITED STATES US

Ship Date: 07JUL09
ActWgt: 76.0 LB MAN
System#: 185697/CAFE2353
Account: S 113684185

TO SAMPLE RECEIVING
ELAB/ALS
10450 STANCLIFF RD. SUITE 210

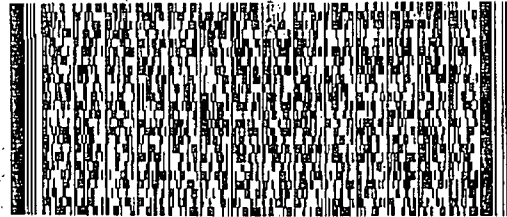
HOUSTON, TX 77099

(281) 530-5656

FedEx
Express



CL5053107/22/23



Delivery Address
Barcode

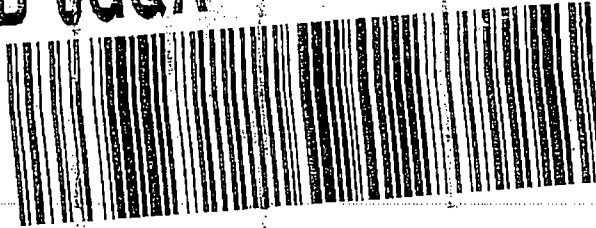
BILL RECIPIENT

FedEx
TRK# 9391 8023 2738
0201

WED - 08 JUL A2
PRIORITY OVERNIGHT

77099
TX-US
IAH

AB JGQA



Emp# 278023 07JUL09 ROWA



ALS Laboratory Group

10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

Date
Name
Company

CUSTODY SEAL

Date: 7/7/09 Time: 1615
Name: Aaron Strange
Company: Navajo Refining Co.

Broken By: **AKG**

Date: 7/8/09

ALS Laboratory Group

Date: 15-Jul-09

Client: ALS Laboratory Group
Project: 0907179
Work Order: 0907167

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0907167-01	0907179-01B	Solid		7/7/2009 11:15	7/9/2009 10:00	☐

ALS Laboratory Group

Date: 15-Jul-09

Client: ALS Laboratory Group
Project: 0907179
WorkOrder: 0907167

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
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ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution

<u>Units Reported</u>	<u>Description</u>
mg/Kg	Milligrams per Kilogram

ALS Laboratory Group

Date: 15-Jul-09

Client: ALS Laboratory Group

Project: 0907179

Work Order: 0907167

Sample ID: 0907179-01B

Lab ID: 0907167-01

Collection Date: 7/7/2009 11:15 AM

Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
CYANIDE, REACTIVE			SW7.3.3.2			
Cyanide, Reactive	ND		40.0	mg/Kg	1	7/14/2009
SULFIDE, REACTIVE			SW7.3.4.2			
Sulfide, Reactive	ND		40.0	mg/Kg	1	7/14/2009

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Laboratory Group

Date: 15-Jul-09

Client: ALS Laboratory Group

Work Order: 0907167

Project: 0907179

QC BATCH REPORT

Batch ID: **R69445** Instrument ID **WETCHEM** Method: **SW7.3.3.2**

MBLK Sample ID: **WBLKS1-071409-R69445** Units: **mg/Kg** Analysis Date: **7/14/2009**

Client ID: Run ID: **WETCHEM_090714I** SeqNo: **1174743** Prep Date: **7/14/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	ND	40								

LCS Sample ID: **WLCSS1-071409-R69445** Units: **mg/Kg** Analysis Date: **7/14/2009**

Client ID: Run ID: **WETCHEM_090714I** SeqNo: **1174744** Prep Date: **7/14/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	220.2	40	250	0	88.1	75-125	0			

LCSD Sample ID: **WLCSDS1-071409-R69445** Units: **mg/Kg** Analysis Date: **7/14/2009**

Client ID: Run ID: **WETCHEM_090714I** SeqNo: **1174761** Prep Date: **7/14/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	220.2	40	250	0	88.1	75-125	220.2	0	35	

MS Sample ID: **0907187-01B MS** Units: **mg/Kg** Analysis Date: **7/14/2009**

Client ID: Run ID: **WETCHEM_090714I** SeqNo: **1174749** Prep Date: **7/14/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	234.9	40	250	0	94	50-150	0			

MSD Sample ID: **0907187-01B MSD** Units: **mg/Kg** Analysis Date: **7/14/2009**

Client ID: Run ID: **WETCHEM_090714I** SeqNo: **1174750** Prep Date: **7/14/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	249.6	40	250	0	99.8	50-150	234.9	6.06	35	

The following samples were analyzed in this batch:

0907167-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ALS Laboratory Group
Work Order: 0907167
Project: 0907179

QC BATCH REPORT

Batch ID: **R69447** Instrument ID **WETCHEM** Method: **SW7.3.4.2**

MBLK Sample ID: **WBLKS1-071409-R69447** Units: **mg/Kg** Analysis Date: **7/14/2009**

Client ID: Run ID: **WETCHEM_090714J** SeqNo: **1174771** Prep Date: **7/14/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide, Reactive	ND	40								

The following samples were analyzed in this batch:

0907167-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

0907167

Date	08-Jul-09
COG	7367
Line Date	20-Jul-09

[illegible]

Page 1 of 1

Subcontractor:
ALPS Laboratory Group
3352 178th Ave
Holland, MI 49424

TEL: (616) 399-6170
FAX: (616) 399-6185
Acct #:

Parameter/Method Request for Analysis

Customer Information		Project Information	
Purchase Order		Project Name	0907179
Work Order		Project Number	
Company Name	A.L.S. Group USA, Corp	Bill To Company	A.L.S. Group USA, Corp
Send Report To	JayKum E Thudathil	Inv Attn	Accounts Payable
Address	10450 Stanchfield Rd, Suite 210	Address	10450 Stanchfield Rd, Suite 210
		City/State/Zip	Houston, Texas 77099-4338
		Phone	281.234.4656
		Fax	281.234.4656
		eMail	glenda.ramassa@alsenviro.com

ALS Laboratory Group

Sample Receipt Checklist

Client Name: **ELAB-HOU**

Date/Time Received: **09-Jul-09 10:00**

Work Order: **0907167**

Received by: **ARB**

Checklist completed by Anthony Bridges
eSignature

09-Jul-09
Date

Reviewed by: Ann Preston
eSignature

09-Jul-09
Date

Matrices: **solid**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	<u>2.2 C</u>		
Cooler(s)/Kil(s):			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:			
Login Notes:			

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

FedEx. STANDARD OVERNIGHT

THU

Emp# 463854 02:25 09JUL09

Deliver By:
09JUL09

TRK# **6749 3963 2792** FORM 0201

GRR

49424 -MI-US

NT HLMA



ORIGIN ID: JGQA (281) 530-5666
SHIPPING
ALS LABORATORY GROUP
10450 STANCLIFF
SUITE 210
HOUSTON, TX 77099
UNITED STATES US

Ship Date: 08JUL09
ActWgt: 26.4 LB
System#: 300130/CAFE2361
Account: S *****

TO RECEIVING

(616) 399-6070

**ALS LABORATORY
3352 128TH AVE.**

**FedEx
Express**

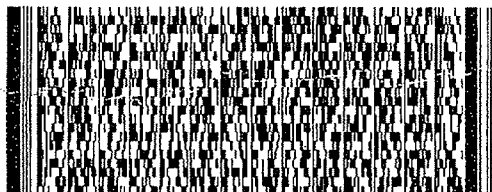
HOLLAND, MI 49424



Dept: su



Delivery Address
Barcode



BILL SENDER

STANDARD OVERNIGHT

THU

TRK# **6749 3963 2792** Form 0201

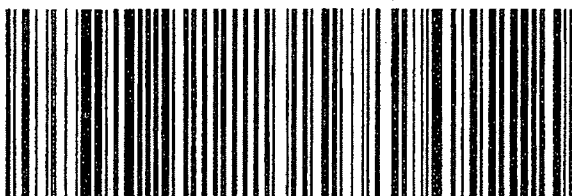
Deliver By:
09JUL09

GRR

AA

49424 -MI-US

NT HLMA



Part # 156148-434 NRIT V3 03-09

ALS Laboratory Group	
10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	
Date: 7/8/09	Time: 4
Name: D. Smith	
Company: ALS	
CUSTODY SL	
Seal Broken By: [Signature]	Date: 7/9/09

x4 2.2c



REFINING COMPANY, LLC

FAX

(575) 746-5283 DIV. ORDERS
(575) 746-5481 TRUCKING
(575) 746-5458 PERSONNEL

501 EAST MAIN STREET • P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159
TELEPHONE (575) 748-3311

FAX

(575) 746-5419 ACCOUNTING
(575) 746-5451 ENV/PURCH/MKTG
(575) 746-5421 ENGINEERING

April 27, 2009

Ms. Hope Monzeglio
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Drive East, Bldg 1
Santa Fe, NM 87505-6303

COPY

**RE: DISSOLVED AIR FLOTATION ANALYTICAL DATA
NAVAJO REFINING COMPANY, ARTESIA REFINERY
EPA ID# NMD048918817
HWB-NRC-MISC**

RECEIVED

2009 APR 29 AM 11 53

Dear Ms. Monzeglio,

Enclosed, please find Navajo Refining Company's quarterly analysis for our Dissolved Air Flotation (DAF). If there are any questions concerning this submission, please contact me at 575-746-5281.

Sincerely,
NAVAJO REFINING COMPANY, LLC

Darrell Moore
Environmental Manager for Water and Waste

Cc: Wayne Price, NMOCD

File Dissolved Air Flotation Analytical 7A05

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES



Environmental Division

22-Apr-09

Aaron Strange
Navajo Refining Company
PO Box 159
Artesia, NM 88211

Tel: (575) 746-5468
Fax: (575) 746-5421

Re: DAF

Work Order : 0904232

Dear Aaron,

ALS Laboratory Group received 1 sample on 4/9/2009 09:35 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Laboratory Group and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 25.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

JayLynn F Thibault

Electronically approved by: Glenda H. Ramos

JayLynn F Thibault
Project Manager



Certificate No: T104704231-08-TX

ALS Group USA, Corp.

Part of the **ALS Laboratory Group**

10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338

Phone: (281) 530-5656 Fax: (281) 530-5887

www.alsglobal.com www.elabi.com

A Campbell Brothers Limited Company

ALS Laboratory Group

Date: 22-Apr-09

Client: Navajo Refining Company
Project: DAF
Work Order: 0904232

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0904232-01	DAF	Sludge		4/8/2009 09:05	4/9/2009 09:35	☐

ALS Laboratory Group

Date: 22-Apr-09

Client: Navajo Refining Company
Project: DAF
Work Order: 0904232

Case Narrative

Batch R75948 1311_VOC (Sample 0904441-01)MS/MSD Several compounds exceed
Rec and RPD limits on MS/MSD due to background.

ALS Laboratory Group

Date: 22-Apr-09

Client: Navajo Refining Company

Project: DAF

Work Order: 0904232

Sample ID: DAF

Lab ID: 0904232-01

Collection Date: 4/8/2009 09:05 AM

Matrix: SLUDGE

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY			SW7470		Prep Date: 4/16/2009	Analyst: JCJ
Mercury	ND		0.000200	mg/L	1	4/16/2009 06:05 PM
TCLP METALS			SW1311/6020		Prep Date: 4/14/2009	Analyst: ALR
Arsenic	ND		0.0500	mg/L	10	4/15/2009 08:14 PM
Barium	0.298		0.0500	mg/L	10	4/15/2009 08:14 PM
Cadmium	ND		0.0500	mg/L	10	4/15/2009 08:14 PM
Chromium	ND		0.0500	mg/L	10	4/15/2009 08:14 PM
Lead	ND		0.0500	mg/L	10	4/15/2009 08:14 PM
Selenium	0.0654		0.0500	mg/L	10	4/15/2009 08:14 PM
Silver	ND		0.0500	mg/L	10	4/15/2009 08:14 PM
TCLP SEMIVOLATILES			SW1311/8270		Prep Date: 4/13/2009	Analyst: ACN
2,4,5-Trichlorophenol	ND		5.0	µg/L	1	4/13/2009 09:41 PM
2,4,6-Trichlorophenol	ND		5.0	µg/L	1	4/13/2009 09:41 PM
2,4-Dinitrotoluene	ND		5.0	µg/L	1	4/13/2009 09:41 PM
Cresols, Total	19		15	µg/L	1	4/13/2009 09:41 PM
Hexachlorobenzene	ND		5.0	µg/L	1	4/13/2009 09:41 PM
Hexachlorobutadiene	ND		5.0	µg/L	1	4/13/2009 09:41 PM
Hexachloroethane	ND		5.0	µg/L	1	4/13/2009 09:41 PM
Nitrobenzene	ND		5.0	µg/L	1	4/13/2009 09:41 PM
Pentachlorophenol	ND		5.0	µg/L	1	4/13/2009 09:41 PM
Pyridine	ND		5.0	µg/L	1	4/13/2009 09:41 PM
Surr: 2,4,6-Tribromophenol	65.5		42-124	%REC	1	4/13/2009 09:41 PM
Surr: 2-Fluorobiphenyl	71.8		48-120	%REC	1	4/13/2009 09:41 PM
Surr: 2-Fluorophenol	65.9		20-120	%REC	1	4/13/2009 09:41 PM
Surr: 4-Terphenyl-d14	69.3		51-135	%REC	1	4/13/2009 09:41 PM
Surr: Nitrobenzene-d5	69.3		41-120	%REC	1	4/13/2009 09:41 PM
Surr: Phenol-d6	62.9		20-120	%REC	1	4/13/2009 09:41 PM
TCLP VOLATILES			SW1311/8260B		Prep Date: 4/10/2009	Analyst: PC
1,1-Dichloroethene	ND		250	µg/L	50	4/20/2009 07:09 PM
1,2-Dichloroethane	ND		250	µg/L	50	4/20/2009 07:09 PM
1,4-Dichlorobenzene	ND		250	µg/L	50	4/20/2009 07:09 PM
2-Butanone	1,400		500	µg/L	50	4/20/2009 07:09 PM
Benzene	ND		250	µg/L	50	4/20/2009 07:09 PM
Carbon tetrachloride	ND		250	µg/L	50	4/20/2009 07:09 PM
Chlorobenzene	ND		250	µg/L	50	4/20/2009 07:09 PM
Chloroform	ND		250	µg/L	50	4/20/2009 07:09 PM
Tetrachloroethene	ND		250	µg/L	50	4/20/2009 07:09 PM
Trichloroethene	ND		250	µg/L	50	4/20/2009 07:09 PM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: 22-Apr-09

Client: Navajo Refining Company

Project: DAF

Work Order: 0904232

Sample ID: DAF

Lab ID: 0904232-01

Collection Date: 4/8/2009 09:05 AM

Matrix: SLUDGE

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Vinyl chloride	ND		250	µg/L	50	4/20/2009 07:09 PM
Surr: 1,2-Dichloroethane-d4	114		70-125	%REC	50	4/20/2009 07:09 PM
Surr: 4-Bromofluorobenzene	96.6		72-125	%REC	50	4/20/2009 07:09 PM
Surr: Dibromofluoromethane	104		71-125	%REC	50	4/20/2009 07:09 PM
Surr: Toluene-d8	96.2		75-125	%REC	50	4/20/2009 07:09 PM
REACTIVE CYANIDE			SW-846			Analyst: HN
Reactive Cyanide	ND		40.0	mg/Kg	1	4/15/2009
REACTIVE SULFIDE			SW-846			Analyst: HN
Reactive Sulfide	ND		40.0	mg/Kg	1	4/15/2009
IGNITABILITY			SW1030			Analyst: TDW
Ignitability, Solid	Negative			no unit	1	4/21/2009 03:30 PM
PH			SW9045B			Analyst: TDW
pH	6.60		0.100	pH Units	1	4/20/2009 12:00 PM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: 22-Apr-09

Client: Navajo Refining Company

Work Order: 0904232

Project: DAF

QC BATCH REPORT

Batch ID: 35538 Instrument ID ICPMS02 Method: SW1311/6020

MBLK Sample ID: MBLKT1-041309-35538 Units: mg/L Analysis Date: 4/15/2009 05:44 PM

Client ID: Run ID: ICPMS02_090414A SeqNo: 1648312 Prep Date: 4/14/2009 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050								
Barium	0.007393	0.050								J
Cadmium	ND	0.050								
Chromium	ND	0.050								
Lead	0.004047	0.050								J
Selenium	ND	0.050								
Silver	ND	0.050								

MBLK Sample ID: MBLKW2-041409-35538 Units: mg/L Analysis Date: 4/15/2009 05:51 PM

Client ID: Run ID: ICPMS02_090414A SeqNo: 1648313 Prep Date: 4/14/2009 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050								
Barium	ND	0.050								
Cadmium	ND	0.050								
Chromium	ND	0.050								
Lead	ND	0.050								
Selenium	ND	0.050								
Silver	ND	0.050								

LCS Sample ID: MLCSW2-041409-35538 Units: mg/L Analysis Date: 4/15/2009 05:57 PM

Client ID: Run ID: ICPMS02_090414A SeqNo: 1648314 Prep Date: 4/14/2009 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.2586	0.050	0.25	0	103	80-120	0			
Barium	0.2584	0.050	0.25	0	103	80-120	0			
Cadmium	0.2471	0.050	0.25	0	98.8	80-120	0			
Chromium	0.2454	0.050	0.25	0	98.2	80-120	0			
Lead	0.2518	0.050	0.25	0	101	80-120	0			
Selenium	0.2454	0.050	0.25	0	98.2	80-120	0			
Silver	0.2575	0.050	0.25	0	103	80-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 0904232
 Project: DAF

QC BATCH REPORT

Batch ID: 35538 Instrument ID ICPMS02 Method: SW1311/6020

MS Sample ID: 0904201-04AMS Units: mg/L Analysis Date: 4/15/2009 06:30 PM

Client ID: Run ID: ICPMS02_090414A SeqNo: 1648318 Prep Date: 4/14/2009 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.259	0.050	0.25	0.003209	102	75-125	0			
Barium	0.8367	0.050	0.25	0.5738	105	75-125	0			
Cadmium	0.2543	0.050	0.25	0.002676	101	75-125	0			
Chromium	0.2353	0.050	0.25	0.003548	92.7	75-125	0			
Lead	0.2537	0.050	0.25	0.004939	99.5	75-125	0			
Selenium	0.2872	0.050	0.25	0.007681	112	75-125	0			
Silver	0.2464	0.050	0.25	0.001349	98	75-125	0			

MSD Sample ID: 0904201-04AMSD Units: mg/L Analysis Date: 4/15/2009 06:37 PM

Client ID: Run ID: ICPMS02_090414A SeqNo: 1648321 Prep Date: 4/14/2009 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.2603	0.050	0.25	0.003209	103	75-125	0.259	0.501	25	
Barium	0.8245	0.050	0.25	0.5738	100	75-125	0.8367	1.47	25	
Cadmium	0.2501	0.050	0.25	0.002676	99	75-125	0.2543	1.67	25	
Chromium	0.243	0.050	0.25	0.003548	95.8	75-125	0.2353	3.22	25	
Lead	0.2498	0.050	0.25	0.004939	97.9	75-125	0.2537	1.55	25	
Selenium	0.237	0.050	0.25	0.007681	91.7	75-125	0.2872	19.2	25	
Silver	0.2388	0.050	0.25	0.001349	95	75-125	0.2464	3.13	25	

DUP Sample ID: 0904201-04ADUP Units: mg/L Analysis Date: 4/15/2009 06:10 PM

Client ID: Run ID: ICPMS02_090414A SeqNo: 1648316 Prep Date: 4/14/2009 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050	0	0	0	0-0	0.003209	0	25	
Barium	0.555	0.050	0	0	0	0-0	0.5738	3.33	25	
Cadmium	ND	0.050	0	0	0	0-0	0.002676	0	25	
Chromium	ND	0.050	0	0	0	0-0	0.003548	0	25	
Lead	0.004981	0.050	0	0	0	0-0	0.004939	0	25	J
Selenium	ND	0.050	0	0	0	0-0	0.007681	0	25	
Silver	ND	0.050	0	0	0	0-0	0.001349	0	25	

The following samples were analyzed in this batch:

0904232-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 0904232
 Project: DAF

QC BATCH REPORT

Batch ID: 35581 Instrument ID Mercury Method: SW7470

MBLK Sample ID: GBLKW6-041609-35581 Units: mg/L Analysis Date: 4/16/2009 05:32 PM
 Client ID: Run ID: MERCURY_090416A SeqNo: 1649488 Prep Date: 4/16/2009 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

MBLK Sample ID: GBLKT2-041509-35581 Units: mg/L Analysis Date: 4/16/2009 05:36 PM
 Client ID: Run ID: MERCURY_090416A SeqNo: 1649492 Prep Date: 4/16/2009 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

LCS Sample ID: GLCSW6-041609-35581 Units: mg/L Analysis Date: 4/16/2009 05:34 PM
 Client ID: Run ID: MERCURY_090416A SeqNo: 1649490 Prep Date: 4/16/2009 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00499	0.00020	0.005	0	99.8	80-120	0			

MS Sample ID: 0904201-03AMS Units: mg/L Analysis Date: 4/16/2009 05:42 PM
 Client ID: Run ID: MERCURY_090416A SeqNo: 1649498 Prep Date: 4/16/2009 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00518	0.00020	0.005	0.000041	103	75-125	0			

MSD Sample ID: 0904201-03AMSD Units: mg/L Analysis Date: 4/16/2009 05:44 PM
 Client ID: Run ID: MERCURY_090416A SeqNo: 1649501 Prep Date: 4/16/2009 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00505	0.00020	0.005	0.000041	100	75-125	0.00518	2.54	20	

DUP Sample ID: 0904201-03ADUP Units: mg/L Analysis Date: 4/16/2009 05:40 PM
 Client ID: Run ID: MERCURY_090416A SeqNo: 1649496 Prep Date: 4/16/2009 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020	0	0	0	0-0	0.000041	0	20	

The following samples were analyzed in this batch:

0904232-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 0904232
 Project: DAF

QC BATCH REPORT

Batch ID: 35516 Instrument ID SV-3 Method: SW1311/8270

MBLK Sample ID: SBLKT2-090413-35516 Units: µg/L Analysis Date: 4/13/2009 04:20 PM

Client ID: Run ID: SV-3_090413B SeqNo: 1646186 Prep Date: 4/13/2009 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	ND	5.0								
2,4,6-Trichlorophenol	ND	5.0								
2,4-Dinitrotoluene	ND	5.0								
Cresols, Total	ND	15								
Hexachlorobenzene	ND	5.0								
Hexachlorobutadiene	ND	5.0								
Hexachloroethane	ND	5.0								
Nitrobenzene	ND	5.0								
Pentachlorophenol	ND	5.0								
Pyridine	ND	5.0								
Surr: 2,4,6-Tribromophenol	83.31	5.0	100	0	83.3	42-124	0			
Surr: 2-Fluorobiphenyl	83.66	5.0	100	0	83.7	48-120	0			
Surr: 2-Fluorophenol	77.4	5.0	100	0	77.4	20-120	0			
Surr: 4-Terphenyl-d14	82.03	5.0	100	0	82	51-135	0			
Surr: Nitrobenzene-d5	77.88	5.0	100	0	77.9	41-120	0			
Surr: Phenol-d6	76.86	5.0	100	0	76.9	20-120	0			

LCS Sample ID: SLCST2-090413-35516 Units: µg/L Analysis Date: 4/13/2009 04:44 PM

Client ID: Run ID: SV-3_090413B SeqNo: 1646187 Prep Date: 4/13/2009 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	84.96	5.0	100	0	85	52-115	0			
2,4,6-Trichlorophenol	88.47	5.0	100	0	88.5	53-115	0			
2,4-Dinitrotoluene	44.31	5.0	50	0	88.6	56-115	0			
Cresols, Total	183.7	15	250	0	73.5	35-115	0			
Hexachlorobenzene	42.6	5.0	50	0	85.2	54-115	0			
Hexachlorobutadiene	46.55	5.0	50	0	93.1	51-115	0			
Hexachloroethane	39.42	5.0	50	0	78.8	54-115	0			
Nitrobenzene	45.59	5.0	50	0	91.2	40-124	0			
Pentachlorophenol	84.08	5.0	100	0	84.1	45-125	0			
Pyridine	34.48	5.0	50	0	69	34-115	0			
Surr: 2,4,6-Tribromophenol	85.41	5.0	100	0	85.4	42-124	0			
Surr: 2-Fluorobiphenyl	86.23	5.0	100	0	86.2	48-120	0			
Surr: 2-Fluorophenol	81.04	5.0	100	0	81	20-120	0			
Surr: 4-Terphenyl-d14	79.47	5.0	100	0	79.5	51-135	0			
Surr: Nitrobenzene-d5	84.16	5.0	100	0	84.2	41-120	0			
Surr: Phenol-d6	75.14	5.0	100	0	75.1	20-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 0904232
 Project: DAF

QC BATCH REPORT

Batch ID: 35516 Instrument ID SV-3 Method: SW1311/8270

LCSD Sample ID: SLCSDT2-090413-35516 Units: µg/L Analysis Date: 4/13/2009 05:09 PM

Client ID: Run ID: SV-3_090413B SeqNo: 1646188 Prep Date: 4/13/2009 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	87.08	5.0	100	0	87.1	52-115	84.96	2.46	25	
2,4,6-Trichlorophenol	92.23	5.0	100	0	92.2	53-115	88.47	4.16	25	
2,4-Dinitrotoluene	44.03	5.0	50	0	88.1	56-115	44.31	0.631	25	
Cresols, Total	210.4	15	250	0	84.2	35-115	183.7	13.5	25	
Hexachlorobenzene	45.51	5.0	50	0	91	54-115	42.6	6.62	25	
Hexachlorobutadiene	48.3	5.0	50	0	96.6	51-115	46.55	3.7	25	
Hexachloroethane	46.49	5.0	50	0	93	54-115	39.42	16.5	25	
Nitrobenzene	44.77	5.0	50	0	89.5	40-124	45.59	1.81	25	
Pentachlorophenol	88.13	5.0	100	0	88.1	45-125	84.08	4.7	25	
Pyridine	39.32	5.0	50	0	78.6	34-115	34.48	13.1	25	
Surr: 2,4,6-Tribromophenol	83.65	5.0	100	0	83.6	42-124	85.41	2.09	25	
Surr: 2-Fluorobiphenyl	86.82	5.0	100	0	86.8	48-120	86.23	0.681	25	
Surr: 2-Fluorophenol	89.27	5.0	100	0	89.3	20-120	81.04	9.66	25	
Surr: 4-Terphenyl-d14	80.11	5.0	100	0	80.1	51-135	79.47	0.808	25	
Surr: Nitrobenzene-d5	82	5.0	100	0	82	41-120	84.16	2.59	25	
Surr: Phenol-d6	83.06	5.0	100	0	83.1	20-120	75.14	10	25	

The following samples were analyzed in this batch:

0904232-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 0904232
 Project: DAF

QC BATCH REPORT

Batch ID: R75948 Instrument ID VOA2 Method: SW1311/8260

MBLK Sample ID: VBLKW-042009-R75948 Units: µg/L Analysis Date: 4/20/2009 11:05 AM

Client ID: Run ID: VOA2_090420D SeqNo: 1652413 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2-Butanone	ND	10								
Benzene	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroform	ND	5.0								
Tetrachloroethene	ND	5.0								
Trichloroethene	ND	5.0								
Vinyl chloride	ND	5.0								
Surr: 1,2-Dichloroethane-d4	55.66	5.0	50	0	111	70-125	0			
Surr: 4-Bromofluorobenzene	50.1	5.0	50	0	100	72.4-125	0			
Surr: Dibromofluoromethane	51.06	5.0	50	0	102	71.2-125	0			
Surr: Toluene-d8	49.87	5.0	50	0	99.7	75-125	0			

MBLK Sample ID: MBLKV2-041009-R75948 Units: µg/L Analysis Date: 4/20/2009 03:07 PM

Client ID: Run ID: VOA2_090420D SeqNo: 1652417 Prep Date: DF: 20

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	100								
1,2-Dichloroethane	ND	100								
1,4-Dichlorobenzene	ND	100								
2-Butanone	ND	200								
Benzene	ND	100								
Carbon tetrachloride	ND	100								
Chlorobenzene	ND	100								
Chloroform	ND	100								
Tetrachloroethene	ND	100								
Trichloroethene	ND	100								
Vinyl chloride	ND	100								
Surr: 1,2-Dichloroethane-d4	1097	100	1000	0	110	70-125	0			
Surr: 4-Bromofluorobenzene	979.2	100	1000	0	97.9	72.4-125	0			
Surr: Dibromofluoromethane	1020	100	1000	0	102	71.2-125	0			
Surr: Toluene-d8	971	100	1000	0	97.1	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 0904232
 Project: DAF

QC BATCH REPORT

Batch ID: R75948 Instrument ID VOA2 Method: SW1311/8260

MBLK Sample ID: MBLKV1-041709-R75948 Units: µg/L Analysis Date: 4/20/2009 01:06 PM

Client ID: Run ID: VOA2_090420D SeqNo: 1652441 Prep Date: 4/17/2009 DF: 20

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	100								
1,2-Dichloroethane	ND	100								
1,4-Dichlorobenzene	ND	100								
2-Butanone	ND	200								
Benzene	ND	100								
Carbon tetrachloride	ND	100								
Chlorobenzene	ND	100								
Chloroform	ND	100								
Tetrachloroethene	ND	100								
Trichloroethene	ND	100								
Vinyl chloride	ND	100								
Surr: 1,2-Dichloroethane-d4	1079	100	1000	0	108	70-125	0			
Surr: 4-Bromofluorobenzene	1022	100	1000	0	102	72.4-125	0			
Surr: Dibromofluoromethane	1002	100	1000	0	100	71.2-125	0			
Surr: Toluene-d8	968.5	100	1000	0	96.9	75-125	0			

LCS Sample ID: VLCSW-042009-R75948 Units: µg/L Analysis Date: 4/20/2009 10:16 AM

Client ID: Run ID: VOA2_090420D SeqNo: 1652412 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	54.29	5.0	50	0	109	73-124	0			
1,2-Dichloroethane	52.15	5.0	50	0	104	76-120	0			
1,4-Dichlorobenzene	44.44	5.0	50	0	88.9	70-130	0			
2-Butanone	101.6	10	100	0	102	70-130	0			
Benzene	48.37	5.0	50	0	96.7	70-128	0			
Carbon tetrachloride	53.25	5.0	50	0	106	70-130	0			
Chlorobenzene	47.07	5.0	50	0	94.1	72-127	0			
Chloroform	49.55	5.0	50	0	99.1	70-130	0			
Tetrachloroethene	49.23	5.0	50	0	98.5	70-130	0			
Trichloroethene	49.17	5.0	50	0	98.3	72-129	0			
Vinyl chloride	47.67	5.0	50	0	95.3	70-130	0			
Surr: 1,2-Dichloroethane-d4	53	5.0	50	0	106	70-125	0			
Surr: 4-Bromofluorobenzene	51.23	5.0	50	0	102	72-125	0			
Surr: Dibromofluoromethane	49.99	5.0	50	0	100	71-125	0			
Surr: Toluene-d8	49.57	5.0	50	0	99.1	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
 Work Order: 0904232
 Project: DAF

QC BATCH REPORT

Batch ID: R75948 Instrument ID VOA2 Method: SW1311/8260

MS		Sample ID: 0904441-01AMS			Units: µg/L		Analysis Date: 4/20/2009 12:17 PM			
Client ID:		Run ID: VOA2_090420D			SeqNo: 1652415		Prep Date:		DF: 500	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	21700	2,500	25000	0	86.8	73-124	0			
1,2-Dichloroethane	17910	2,500	25000	0	71.6	76-120	0			S
1,4-Dichlorobenzene	20970	2,500	25000	0	83.9	70-130	0			
2-Butanone	21990	5,000	50000	0	44	70-130	0			S
Benzene	36720	2,500	25000	15820	83.6	70-128	0			
Carbon tetrachloride	34590	2,500	25000	10860	94.9	70-130	0			
Chlorobenzene	80500	2,500	25000	63440	68.2	72-127	0			S
Chloroform	36350	2,500	25000	15090	85	70-130	0			
Tetrachloroethene	23450	2,500	25000	0	93.8	70-130	0			
Trichloroethene	22240	2,500	25000	0	89	72-129	0			
Vinyl chloride	17880	2,500	25000	0	71.5	70-130	0			
Surr: 1,2-Dichloroethane-d4	19230	2,500	25000	0	76.9	70-125	0			
Surr: 4-Bromofluorobenzene	23860	2,500	25000	0	95.4	72-125	0			
Surr: Dibromofluoromethane	22780	2,500	25000	0	91.1	71-125	0			
Surr: Toluene-d8	26060	2,500	25000	0	104	75-125	0			

MSD		Sample ID: 0904441-01AMSD			Units: µg/L		Analysis Date: 4/20/2009 12:42 PM			
Client ID:		Run ID: VOA2_090420D			SeqNo: 1652416		Prep Date:		DF: 500	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	23320	2,500	25000	0	93.3	73-124	21700	7.2	20	
1,2-Dichloroethane	24000	2,500	25000	0	96	76-120	17910	29.1	20	R
1,4-Dichlorobenzene	21830	2,500	25000	0	87.3	70-130	20970	4.04	20	
2-Butanone	46800	5,000	50000	0	93.6	70-130	21990	72.1	20	R
Benzene	37410	2,500	25000	15820	86.4	70-128	36720	1.87	20	
Carbon tetrachloride	36050	2,500	25000	10860	101	70-130	34590	4.12	20	
Chlorobenzene	81830	2,500	25000	63440	73.6	72-127	80500	1.64	20	
Chloroform	38120	2,500	25000	15090	92.1	70-130	36350	4.74	20	
Tetrachloroethene	22570	2,500	25000	0	90.3	70-130	23450	3.82	20	
Trichloroethene	22670	2,500	25000	0	90.7	72-129	22240	1.94	20	
Vinyl chloride	19070	2,500	25000	0	76.3	70-130	17880	6.45	20	
Surr: 1,2-Dichloroethane-d4	25590	2,500	25000	0	102	70-125	19230	28.4	20	R
Surr: 4-Bromofluorobenzene	25240	2,500	25000	0	101	72-125	23860	5.65	20	
Surr: Dibromofluoromethane	25220	2,500	25000	0	101	71-125	22780	10.1	20	
Surr: Toluene-d8	24440	2,500	25000	0	97.8	75-125	26060	6.39	20	

The following samples were analyzed in this batch:

0904232-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Navajo Refining Company
Work Order: 0904232
Project: DAF

QC BATCH REPORT

Batch ID: R75890 Instrument ID WetChem Method: SW9045B

LCS Sample ID: WLCSW1-042009-R75890 Units: pH Units Analysis Date: 4/20/2009 12:00 PM

Client ID: Run ID: WETCHEM_090420A SeqNo: 1651632 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6.1	0.10	6	0	102	90-110	0			

DUP Sample ID: 0904200-04bdup Units: pH Units Analysis Date: 4/20/2009 12:00 PM

Client ID: Run ID: WETCHEM_090420A SeqNo: 1651647 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.62	0.10	0	0	0	0-0	8.6	0.232	20	

The following samples were analyzed in this batch:

0904232-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Laboratory Group

Date: 22-Apr-09

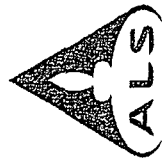
Client: Navajo Refining Company
Project: DAF
WorkOrder: 0904232

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
µg/L	Micrograms per Liter
mg/Kg	Milligrams per Kilogram
mg/L	Milligrams per Liter
no unit	
pH Units	



ALS Laboratory Group
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

Chain of Custody Form

☐ **ALS Laboratory Group**

3352 128th Ave.
Holland, MI 49424-9263
Tel: +1 616 399 6070
Fax: +1 616 399 6185

Page 1 of 1

Customer Information				Project Information				ALS Project Manager: <u>DAF</u> ALS Work Order #: <u>020423</u> Parameter/Method Request for Analysis											
Purchase Order				Project Name: <u>DAF</u>				A											
Work Order				Project Number:				B											
Company Name				Bill To Company				C											
Navajo Refining Company				Navajo Refining Company				D											
Send Report To				Invoice Attn				E											
Aaron Strange				Aaron Strange				F											
P.O. Box 159				P.O. Box 159				G											
Address				Address				H											
City/State/Zip				City/State/Zip				I											
Artesia, NM 88211				Artesia, NM 88211				J											
Phone				Phone				A											
575 748-3311				(505) 748-3311				B											
Fax				Fax				C											
575 746-5421				(505) 746-5421				D											
E-Mail Address				E-Mail Address				E											
dgboyer@SES-1NM.com								F											
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	DAF	4/8/09	15:05	S	Y	1	X	X	X	X									
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
4/8/09 Aaron Strange		Fed Ex		V Sid 10WK Days		24 Hour	
Relinquished by:	4/8/09	Time	16:15	Received by:	DAF	Time	04:35
Relinquished by:	4/8/09	Time	04:35	Checked by (Laboratory):	DAF	Time	09:50
Logged by (Laboratory):	4/8/09	Time	09:50	Preservative Key:	1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ SO ₃ 6-NaHSO ₃ 7-Other	8-45C	9-5035
OC Package: (Check One Box Below)							
☐ Level II Sid OC	☐ TRRP Check (List)						
☐ Level III Sid OC/Row Data	☐ TRRP Level IV						
☐ Level IV SW046/CLP	☐ Other						

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.

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ALS Laboratory Group

Sample Receipt Checklist

Client Name: NAVAJO REFINING

Date/Time Received: 09-Apr-09 09:35

Work Order: 0904232

Received by: RDH

Checklist completed by Richard Sanchez
eSignature

09-Apr-09
Date

Reviewed by: [Signature]
eSignature

Date 4/10/09

Matrices: soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	<u>3.1c</u>		<u>002</u>
Cooler(s)/Kit(s):	<u>971</u>		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:			
Login Notes:			

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:

090428Z

ORIGIN ID: ROMA 3003/740-331
NAVAJO REFINING
NAVAJO REFINING COMPANY
501 E. MAIN STREET

Ship Date: 08APR09
ActWgt: 42.0 LB MAN
System#: 185697/CAFE2353
Account: S 113684186

ARTESIA, NM 88210
UNITED STATES US

TO SAMPLE RECEIVING

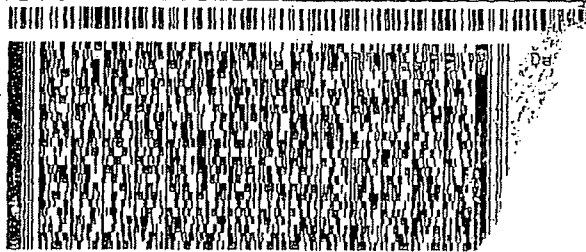
ELAB/ALS

10450 STANCLIFF RD. SUITE 210

HOUSTON, TX 77099

(281) 530-5656

FedEx
Express



PRIORITY OVERNIGHT

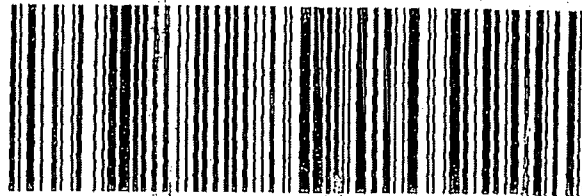
TRK# 9391 8022 9694

Form 0201

THU
IAH
209
H2

77099 -TX-US

AB JGQA



 **ALS Laboratory Group**
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

CUSTOMER
Date: 4/8/09
Name: A. A. A.
Company: NAVAJO

ODY SEAL
Time: 1615
Signature: [Signature]
Refining Co.

Seal Marking
[Signature]
4/8/09

ALS Laboratory Group

Date: 16-Apr-09

Client: ALS Laboratory Group
Project: 0904232
Work Order: 0904245

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0904245-01	0904232-01B	Sludge		4/8/2009 09:05	4/14/2009 10:00	☐

ALS Laboratory Group

Date: 16-Apr-09

Client: ALS Laboratory Group

Project: 0904232

Work Order: 0904245

Sample ID: 0904232-01B

Lab ID: 0904245-01

Collection Date: 4/8/2009 09:05 AM

Matrix: SLUDGE

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
CYANIDE, REACTIVE			SW7.3.3.2		Prep Date: 4/15/2009	Analyst: DB
Cyanide, Reactive	ND		40.0	mg/Kg	1	4/15/2009
SULFIDE, REACTIVE			SW7.3.4.2		Prep Date: 4/15/2009	Analyst: DB
Sulfide, Reactive	ND		40.0	mg/Kg	1	4/15/2009

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

a - Not accredited

S - Spike Recovery outside accepted recovery limits

P - Dual Column results percent difference > 40%

E - Value above quantitation range

H - Analyzed outside of Hold Time

n - Not offered for accreditation

ALS Laboratory Group

Client: ALS Laboratory Group
Work Order: 0904245
Project: 0904232

Date: 16-Apr-09

QC BATCH REPORT

Batch ID: R67210 Instrument ID WETCHEM Method: SW7.3.3.2

MBLK	Sample ID: WBLKS1-041509-R67210				Units: mg/Kg		Analysis Date: 4/15/2009			
Client ID:	Run ID: WETCHEM_090415E				SeqNo: 1132895		Prep Date: 4/15/2009		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	ND	40								

LCS	Sample ID: WLCSS1-041509-R67210				Units: mg/Kg		Analysis Date: 4/15/2009			
Client ID:	Run ID: WETCHEM_090415E				SeqNo: 1132896		Prep Date: 4/15/2009		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	249.6	40	250	0	99.8	75-125	0			

LCSD	Sample ID: WLCSDS1-041509-R67210					Units: mg/Kg		Analysis Date: 4/15/2009		
Client ID:	Run ID: WETCHEM_090415E				SeqNo: 1132910		Prep Date: 4/15/2009		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	249.6	40	250	0	99.8	75-125	249.6	0	35	

MS	Sample ID: 0904241-04A MS				Units: mg/Kg		Analysis Date: 4/15/2009			
Client ID:	Run ID: WETCHEM_090415E				SeqNo: 1132902		Prep Date: 4/15/2009		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	220.2	40	250	0	88.1	50-150	0			

MSD	Sample ID: 0904241-04A MSD					Units: mg/Kg		Analysis Date: 4/15/2009		
Client ID:	Run ID: WETCHEM_090415E					SeqNo: 1132903		Prep Date: 4/15/2009		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	234.9	40	250	0	94	50-150	220.2	6.45	35	

The following samples were analyzed in this batch:

0904245-01A

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range

Client: ALS Laboratory Group
Work Order: 0904245
Project: 0904232

QC BATCH REPORT

Batch ID: R67211 Instrument ID WETCHEM Method: SW7.3.4.2

MBLK Sample ID: WBLKS1-041509-R67211 Units: mg/Kg Analysis Date: 4/15/2009
Client ID: Run ID: WETCHEM_090415F SeqNo: 1132911 Prep Date: 4/15/2009 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide, Reactive	ND	40								

The following samples were analyzed in this batch:

0904245-01A

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range

0904245

Subcontractor:
ALS Laboratory Group
3352 128th Ave.
Holland, MI 49424

TEL: (616) 399-6070
FAX: (616) 399-6185
Accl #:

CHAIN-OF-CUSTODY RECORD

Date: 09-Apr-09
COC ID: 7576
Due Date: 21-Apr-09

Page 1 of 1

Parameter/Method Request for Analysis

Project Information
Project Name: 0904232
Project Number: 0904232

Customer Information

Purchase Order
Work Order

Company Name
Send Report To
Address

ALS Group USA, Corp.
JayLynn F. Thibault
10450 Stanciliff Rd, Suite 210

ALS Group USA, Corp.
Accounts Payable
10450 Stanciliff Rd, Suite 210

City/State/Zip
Phone
Fax

Houston, Texas 77099-4338
(281) 530-5656
(281) 530-5887

Houston, Texas 77099-4338
(281) 530-5656
(281) 530-5887

eMail Address
Sample ID
0904232-01B (DAF)

jaylynn.thibault@alsenviro.com
Matrix
Sludge

glenda.ramos@alsenviro.com
Collection Date 24hr
4/8/2009 9:05

Bottle
(1) 4OZGNEAT

A Reactive Cyanide (SW-846)
B Reactive Sulfide (SW-846)

C
D
E
F
G
H
I
J

A X
B X
C
D
E
F
G
H
I
J

Comments:

Relinquished by:

Relinquished by:

Date/Time

Date/Time

Received by:

Received by:

Date/Time

Date/Time

Cooler IDs

Report/OC Level

4/8/09
4/8/09
4/8/09 10:00

ALS Laboratory Group

Sample Receipt Checklist

Client Name ELAB-HOU

Date/Time Received: 4/14/2009 10:00

Work Order Number 0904245

Received by: ARB

Checklist completed by

[Signature] 4/14/09
Signature Date

Reviewed by

[Signature] 4/14/09
Initials Date

Matrix: sludge

Carrier name: UPS

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	

Temperature(s)/Thermometer(s):

22 C

Cooler(s)/Kit(s):

Water - VOA vials have zero headspace?

Yes ☐ No ☐ No VOA vials submitted ☒

Water - pH acceptable upon receipt?

Yes ☐ No ☐ N/A ☒

Adjusted?

[Signature]

Checked by

[Signature]

Login Notes:

Client contacted _____ Date contacted: _____ Person contacted _____

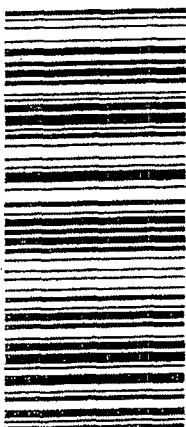
Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

1253948 SS0007 US 04399 Apr 14 07:37:51 2000 HIP 7.0.1 INT41X1

1Z 698 174 23 1005 4599



Stanciliff Rd., Suite 210
Houston, Tex.
Tel. +1 281 530 5656
Fax. +1 281 530 5887

Group

CUSTODY SEAL

Date: 4/14/00 Time: 1600

Name: R. SANCHEZ

AS

Seal Broken By:

AB

Date: 4/19/00

3352 128TH AVE

HOLLAND MI 49424

P: S: I:

M813-RDL

1500

LARGE PACKAGE	1
WEIGHT	36
DIMENSIONAL WEIGHT	36

UPS	UPS Next Day Air	Saver
Shipping Document		

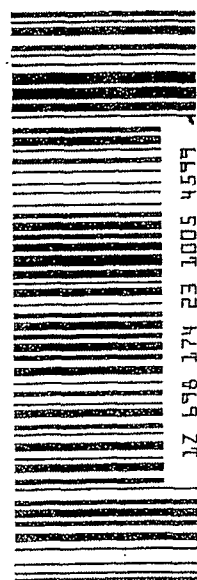
leaves

MI 495 9-04



Saver 1P

UPS Next Day Air



4599 505 23 471 956 27

SHIPMENT ID NUMBER 6981 7478 BGL

TELEPHONE 281-530-5656

RICHARD SANCHEZ

ALS LABORATORY GROUP

1452 # ELS STANCLIFF RD ST 051

TX 77069

HOUSTON

TELEPHONE

616-399-0070

RECEIVING

ALS LABORATORY GROUP

3352 128TH AVE

HOLLAND

MI 49424

(URC v.72.5A 10/2007)
0201952542609 1107 S

United Parcel Service, Louisville, KY

02743

010967 P1

18259780

150 of 500

Chavez, Carl J, EMNRD

From: Monzeglio, Hope, NMENV
Sent: Thursday, August 14, 2008 8:39 AM
To: Chavez, Carl J, EMNRD; Price, Wayne, EMNRD
Subject: DAF at NRC
Attachments: 8_08 DAF results Final.pdf

Wayne and Carl

I have attached some August DAF results from Navajo. Not sure if you are interested in viewing them. We have them sampling quarterly for a few years.

Hope

Hope Monzeglio
Environmental Specialist
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, BLDG 1
Santa Fe NM 87505
Phone: (505) 476-6045; Main No.: (505)-476-6000
Fax: (505)-476-6060
hope.monzeglio@state.nm.us

Websites:

New Mexico Environment Department
Hazardous Waste Bureau

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES



Environmental Division

13-Aug-08

Aaron Strange
Navajo Refining Company
PO Box 159
Artesia, NM 88211

Tel: (575) 746-5468
Fax: (505) 746-5421

Re: DAF

Work Order : 0808118

Dear Aaron,

ALS Laboratory Group received 1 sample on 8/7/2008 09:15 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Laboratory Group and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 26.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Electronically approved by: Glenda H. Ramos

Jeffrey L Croston
Project Manager



Certificate No: T104704231-08-TX

ALS Group USA, Corp.

Part of the **ALS Laboratory Group**

10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338

Phone: (281) 530-5656 Fax: (281) 530-5887

www.alsglobal.com www.elabi.com

A Campbell Brothers Limited Company

ALS Laboratory Group

Date: 13-Aug-08

Client: Navajo Refining Company
Project: DAF
Work Order: 0808118

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0808118-01	DAF	Water		8/6/2008 15:00	8/7/2008 09:15	☐

ALS Laboratory Group

Date: 13-Aug-08

Client: Navajo Refining Company
Project: DAF
Work Order: 0808118

Case Narrative

pH (sample DAF) was analyzed received outside of the recommended holding time, but was analyzed immediately upon the receipt of the laboratory.

Batch R66440 Volatiles MS/MSD was an unrelated sample.

ALS Laboratory Group

Date: 13-Aug-08

Client: Navajo Refining Company

Project: DAF

Work Order: 0808118

Sample ID: DAF

Lab ID: 0808118-01

Collection Date: 8/6/2008 03:00 PM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY			SW7470		Prep Date: 8/8/2008	Analyst: JCJ
Mercury	ND		0.000200	mg/L	1	8/8/2008 04:06 PM
TCLP METALS, ICP			SW1311/6020		Prep Date: 8/8/2008	Analyst: ALR
Arsenic	0.126		0.0500	mg/L	10	8/9/2008 03:04 AM
Barium	ND		0.0500	mg/L	10	8/9/2008 03:04 AM
Cadmium	ND		0.0500	mg/L	10	8/9/2008 03:04 AM
Chromium	ND		0.0500	mg/L	10	8/9/2008 03:04 AM
Lead	ND		0.0500	mg/L	10	8/9/2008 03:04 AM
Selenium	0.423		0.0500	mg/L	10	8/9/2008 03:04 AM
Silver	ND		0.0500	mg/L	10	8/9/2008 03:04 AM
TCLP SEMIVOLATILES			SW1311/8270		Prep Date: 8/8/2008	Analyst: ACN
2,4,5-Trichlorophenol	ND		5.0	µg/L	1	8/8/2008 03:30 PM
2,4,6-Trichlorophenol	ND		5.0	µg/L	1	8/8/2008 03:30 PM
2,4-Dinitrotoluene	ND		5.0	µg/L	1	8/8/2008 03:30 PM
Cresols, Total	ND		15	µg/L	1	8/8/2008 03:30 PM
Hexachlorobenzene	ND		5.0	µg/L	1	8/8/2008 03:30 PM
Hexachlorobutadiene	ND		5.0	µg/L	1	8/8/2008 03:30 PM
Hexachloroethane	ND		5.0	µg/L	1	8/8/2008 03:30 PM
Nitrobenzene	ND		5.0	µg/L	1	8/8/2008 03:30 PM
Pentachlorophenol	ND		5.0	µg/L	1	8/8/2008 03:30 PM
Pyridine	ND		5.0	µg/L	1	8/8/2008 03:30 PM
Surr: 2,4,6-Tribromophenol	63.4		42-124	%REC	1	8/8/2008 03:30 PM
Surr: 2-Fluorobiphenyl	64.0		48-120	%REC	1	8/8/2008 03:30 PM
Surr: 2-Fluorophenol	59.5		20-120	%REC	1	8/8/2008 03:30 PM
Surr: 4-Terphenyl-d14	67.1		51-135	%REC	1	8/8/2008 03:30 PM
Surr: Nitrobenzene-d5	65.3		41-120	%REC	1	8/8/2008 03:30 PM
Surr: Phenol-d6	62.1		20-120	%REC	1	8/8/2008 03:30 PM
TCLP VOLATILES			SW1311/8260B		Prep Date: 8/7/2008	Analyst: PC
1,1-Dichloroethene	ND		100	µg/L	20	8/8/2008 03:54 PM
1,2-Dichloroethane	ND		100	µg/L	20	8/8/2008 03:54 PM
1,4-Dichlorobenzene	ND		100	µg/L	20	8/8/2008 03:54 PM
2-Butanone	ND		200	µg/L	20	8/8/2008 03:54 PM
Benzene	ND		100	µg/L	20	8/8/2008 03:54 PM
Carbon tetrachloride	ND		100	µg/L	20	8/8/2008 03:54 PM
Chlorobenzene	ND		100	µg/L	20	8/8/2008 03:54 PM
Chloroform	ND		100	µg/L	20	8/8/2008 03:54 PM
Tetrachloroethene	ND		100	µg/L	20	8/8/2008 03:54 PM
Trichloroethene	ND		100	µg/L	20	8/8/2008 03:54 PM

Qualifiers:
 ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level
 a - Not accredited

S - Spike Recovery outside accepted recovery limits
 P - Dual Column results percent difference > 40%
 E - Value above quantitation range
 H - Analyzed outside of Hold Time
 n - Not offered for accreditation

ALS Laboratory Group

Date: 13-Aug-08

Client: Navajo Refining Company

Project: DAF

Work Order: 0808118

Sample ID: DAF

Lab ID: 0808118-01

Collection Date: 8/6/2008 03:00 PM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Vinyl chloride	ND		100	µg/L	20	8/8/2008 03:54 PM
Surr: 1,2-Dichloroethane-d4	109		70-125	%REC	20	8/8/2008 03:54 PM
Surr: 4-Bromofluorobenzene	114		72-125	%REC	20	8/8/2008 03:54 PM
Surr: Dibromofluoromethane	113		71-125	%REC	20	8/8/2008 03:54 PM
Surr: Toluene-d8	110		75-125	%REC	20	8/8/2008 03:54 PM
CYANIDE, REACTIVE			SW-846			Analyst: HN
Reactive Cyanide	ND		40.0	mg/Kg	1	8/11/2008
SULFIDE, REACTIVE			SW-846			Analyst: HN
Reactive Sulfide	ND		40.0	mg/Kg	1	8/11/2008
FLASHPOINT-SW1010A			SW1010			Analyst: MAM
Ignitability	>160		50.0	°F	1	8/11/2008 10:30 AM
PH			E150.1			Analyst: MAM
pH	6.95	H	0.100	pH units	1	8/7/2008 06:00 PM

Qualifiers:
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 E - Value above quantitation range
 H - Analyzed outside of Hold Time
 n - Not offered for accreditation

ALS Laboratory Group

Client: Navajo Refining Company
Work Order: 0808118
Project: DAF

Date: 13-Aug-08

QC BATCH REPORT

Batch ID: 31268 Instrument ID Mercury Method: SW7470

MBLK Sample ID: GBLKW2-080808-31268 Units: mg/L Analysis Date: 8/8/2008 03:40 PM
 Client ID: Run ID: MERCURY_080808C SeqNo: 1462635 Prep Date: 8/8/2008 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

MBLK Sample ID: GBLKT1-080708-31268 Units: mg/L Analysis Date: 8/8/2008 03:53 PM
 Client ID: Run ID: MERCURY_080808C SeqNo: 1462638 Prep Date: 8/8/2008 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

LCS Sample ID: GLCSW2-080808-31268 Units: mg/L Analysis Date: 8/8/2008 03:45 PM
 Client ID: Run ID: MERCURY_080808C SeqNo: 1462636 Prep Date: 8/8/2008 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00505	0.00020	0.005		0	101	80-120	0		

LCSD Sample ID: GLCSDW2-080808-31268 Units: mg/L Analysis Date: 8/8/2008 03:48 PM
 Client ID: Run ID: MERCURY_080808C SeqNo: 1462637 Prep Date: 8/8/2008 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00507	0.00020	0.005		0	101	80-120	0.00505	0.395	25

MS Sample ID: 0808109-01CMS Units: mg/L Analysis Date: 8/8/2008 03:59 PM
 Client ID: Run ID: MERCURY_080808C SeqNo: 1462641 Prep Date: 8/8/2008 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00507	0.00020	0.005	-0.000044	102	75-125		0		

MSD Sample ID: 0808109-01CMSD Units: mg/L Analysis Date: 8/8/2008 04:01 PM
 Client ID: Run ID: MERCURY_080808C SeqNo: 1462642 Prep Date: 8/8/2008 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00502	0.00020	0.005	-0.000044	101	75-125	0.00507	0.991	20	

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range

Client: Navajo Refining Company
Work Order: 0808118
Project: DAF

QC BATCH REPORT

Batch ID: 31268 Instrument ID Mercury Method: SW7470

DUP Sample ID: 0808109-01CDUP Units: mg/L Analysis Date: 8/8/2008 03:57 PM

Client ID: Run ID: MERCURY_080808C SeqNo: 1462640 Prep Date: 8/8/2008 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020	0	0	0	0-0	-0.000044	0	20	

The following samples were analyzed in this batch:

0808118-01A

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range

Client: Navajo Refining Company
 Work Order: 0808118
 Project: DAF

QC BATCH REPORT

Batch ID: 31276 Instrument ID ICPMS02 Method: SW1311/6020

MBLK Sample ID: MBLKT1-080708-31276 Units: mg/L Analysis Date: 8/9/2008 01:08 AM

Client ID: Run ID: ICPMS02_080808A SeqNo: 1463012 Prep Date: 8/8/2008 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050								
Barium	ND	0.050								
Cadmium	ND	0.050								
Chromium	ND	0.050								
Lead	ND	0.050								
Selenium	ND	0.050								
Silver	ND	0.050								

MBLK Sample ID: MBLKW4-080808-31276 Units: mg/L Analysis Date: 8/9/2008 01:14 AM

Client ID: Run ID: ICPMS02_080808A SeqNo: 1463014 Prep Date: 8/8/2008 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050								
Barium	ND	0.050								
Cadmium	ND	0.050								
Chromium	ND	0.050								
Lead	ND	0.050								
Selenium	ND	0.050								
Silver	ND	0.050								

LCS Sample ID: MLCW4-080808-31276 Units: mg/L Analysis Date: 8/9/2008 01:21 AM

Client ID: Run ID: ICPMS02_080808A SeqNo: 1463016 Prep Date: 8/8/2008 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.2021	0.050	0.2	0	101	80-120	0			
Barium	0.1827	0.050	0.2	0	91.4	80-120	0			
Cadmium	0.1931	0.050	0.2	0	96.6	80-120	0			
Chromium	0.1789	0.050	0.2	0	89.4	80-120	0			
Lead	0.186	0.050	0.2	0	93	80-120	0			
Selenium	0.178	0.050	0.2	0	89	80-120	0			
Silver	0.1915	0.050	0.2	0	95.8	80-120	0			

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range

Client: Navajo Refining Company
 Work Order: 0808118
 Project: DAF

QC BATCH REPORT

Batch ID: 31276 Instrument ID ICPMS02 Method: SW1311/6020

MS Sample ID: 0808109-01CMS Units: mg/L Analysis Date: 8/9/2008 02:06 AM

Client ID: Run ID: ICPMS02_080808A SeqNo: 1463025 Prep Date: 8/8/2008 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.2079	0.050	0.2	0.001904	103	75-125	0			
Barium	1.497	0.050	0.2	1.346	75.5	75-125	0			O
Cadmium	0.1992	0.050	0.2	0.004082	97.6	75-125	0			
Chromium	0.1848	0.050	0.2	0.007396	88.7	75-125	0			
Lead	0.1978	0.050	0.2	0.009721	94	75-125	0			
Selenium	0.1937	0.050	0.2	0.00576	94	75-125	0			
Silver	0.1856	0.050	0.2	-0.002391	94	75-125	0			

MSD Sample ID: 0808109-01CMSD Units: mg/L Analysis Date: 8/9/2008 02:12 AM

Client ID: Run ID: ICPMS02_080808A SeqNo: 1463026 Prep Date: 8/8/2008 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.2063	0.050	0.2	0.001904	102	75-125	0.2079	0.773	25	
Barium	1.555	0.050	0.2	1.346	104	75-125	1.497	3.8	25	O
Cadmium	0.2045	0.050	0.2	0.004082	100	75-125	0.1992	2.63	25	
Chromium	0.1867	0.050	0.2	0.007396	89.7	75-125	0.1848	1.02	25	
Lead	0.196	0.050	0.2	0.009721	93.1	75-125	0.1978	0.914	25	
Selenium	0.2142	0.050	0.2	0.00576	104	75-125	0.1937	10.1	25	
Silver	0.1851	0.050	0.2	-0.002391	93.7	75-125	0.1856	0.27	25	

DUP Sample ID: 0808109-01CDUP Units: mg/L Analysis Date: 8/9/2008 01:34 AM

Client ID: Run ID: ICPMS02_080808A SeqNo: 1463021 Prep Date: 8/8/2008 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050	0	0	0	0-0	0.001904	0	25	
Barium	1.291	0.050	0	0	0	0-0	1.346	4.17	25	
Cadmium	ND	0.050	0	0	0	0-0	0.004082	0	25	
Chromium	ND	0.050	0	0	0	0-0	0.007396	0	25	
Lead	ND	0.050	0	0	0	0-0	0.009721	0	25	
Selenium	ND	0.050	0	0	0	0-0	0.00576	0	25	
Silver	ND	0.050	0	0	0	0-0	-0.002391	0	25	

The following samples were analyzed in this batch:

0808118-01A

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J - Analyte detected below quantitation limits

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R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range

Client: Navajo Refining Company
 Work Order: 0808118
 Project: DAF

QC BATCH REPORT

Batch ID: 31271 Instrument ID SV-5 Method: SW1311/8270

MBLK Sample ID: SBLKT1-080808-31271 Units: µg/L Analysis Date: 8/8/2008 01:39 PM

Client ID: Run ID: SV-5_080808B SeqNo: 1462600 Prep Date: 8/8/2008 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	ND	5.0								
2,4,6-Trichlorophenol	ND	5.0								
2,4-Dinitrotoluene	ND	5.0								
Cresols, Total	ND	15								
Hexachlorobenzene	ND	5.0								
Hexachlorobutadiene	ND	5.0								
Hexachloroethane	ND	5.0								
Nitrobenzene	ND	5.0								
Pentachlorophenol	ND	5.0								
Pyridine	ND	5.0								
Surr: 2,4,6-Tribromophenol	63.9	5.0	100	0	63.9	42-124	0			
Surr: 2-Fluorobiphenyl	65.51	5.0	100	0	65.5	48-120	0			
Surr: 2-Fluorophenol	57.74	5.0	100	0	57.7	20-120	0			
Surr: 4-Terphenyl-d14	70.69	5.0	100	0	70.7	51-135	0			
Surr: Nitrobenzene-d5	65.18	5.0	100	0	65.2	41-120	0			
Surr: Phenol-d6	61.51	5.0	100	0	61.5	20-120	0			

LCS Sample ID: SLCST1-080808-31271 Units: µg/L Analysis Date: 8/8/2008 02:06 PM

Client ID: Run ID: SV-5_080808B SeqNo: 1462601 Prep Date: 8/8/2008 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	71.59	5.0	100	0	71.6	52-115	0			
2,4,6-Trichlorophenol	69.74	5.0	100	0	69.7	53-115	0			
2,4-Dinitrotoluene	37.13	5.0	50	0	74.3	56-115	0			
Cresols, Total	183.7	15	250	0	73.5	35-115	0			
Hexachlorobenzene	34.83	5.0	50	0	69.7	54-115	0			
Hexachlorobutadiene	35.66	5.0	50	0	71.3	51-115	0			
Hexachloroethane	34.53	5.0	50	0	69.1	54-115	0			
Nitrobenzene	35.57	5.0	50	0	71.1	40-124	0			
Pentachlorophenol	77.61	5.0	100	0	77.6	45-125	0			
Pyridine	30.95	5.0	50	0	61.9	34-115	0			
Surr: 2,4,6-Tribromophenol	66.05	5.0	100	0	66	42-124	0			
Surr: 2-Fluorobiphenyl	68.58	5.0	100	0	68.6	48-120	0			
Surr: 2-Fluorophenol	67.02	5.0	100	0	67	20-120	0			
Surr: 4-Terphenyl-d14	72.28	5.0	100	0	72.3	51-135	0			
Surr: Nitrobenzene-d5	68.54	5.0	100	0	68.5	41-120	0			
Surr: Phenol-d6	68.41	5.0	100	0	68.4	20-120	0			

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S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range

Client: Navajo Refining Company
 Work Order: 0808118
 Project: DAF

QC BATCH REPORT

Batch ID: 31271 Instrument ID SV-5 Method: SW1311/8270

LCSD Sample ID: SLCSDT1-080808-31271 Units: µg/L Analysis Date: 8/8/2008 02:34 PM

Client ID: Run ID: SV-5_080808B SeqNo: 1462602 Prep Date: 8/8/2008 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	69.46	5.0	100	0	69.5	52-115	71.59	3.02	25	
2,4,6-Trichlorophenol	69.35	5.0	100	0	69.3	53-115	69.74	0.567	25	
2,4-Dinitrotoluene	37.08	5.0	50	0	74.2	56-115	37.13	0.141	25	
Cresols, Total	173.9	15	250	0	69.6	35-115	183.7	5.49	25	
Hexachlorobenzene	32.68	5.0	50	0	65.4	54-115	34.83	6.38	25	
Hexachlorobutadiene	35.28	5.0	50	0	70.6	51-115	35.66	1.07	25	
Hexachloroethane	33.95	5.0	50	0	67.9	54-115	34.53	1.68	25	
Nitrobenzene	34.35	5.0	50	0	68.7	40-124	35.57	3.5	25	
Pentachlorophenol	73.9	5.0	100	0	73.9	45-125	77.61	4.9	25	
Pyridine	30.42	5.0	50	0	60.8	34-115	30.95	1.72	25	
Surr: 2,4,6-Tribromophenol	68.94	5.0	100	0	68.9	42-124	66.05	4.29	25	
Surr: 2-Fluorobiphenyl	69.6	5.0	100	0	69.6	48-120	68.58	1.48	25	
Surr: 2-Fluorophenol	67.62	5.0	100	0	67.6	20-120	67.02	0.895	25	
Surr: 4-Terphenyl-d14	69.93	5.0	100	0	69.9	51-135	72.28	3.3	25	
Surr: Nitrobenzene-d5	68.82	5.0	100	0	68.8	41-120	68.54	0.411	25	
Surr: Phenol-d6	68.11	5.0	100	0	68.1	20-120	68.41	0.447	25	

The following samples were analyzed in this batch:

0808118-01A

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range

Client: Navajo Refining Company
 Work Order: 0808118
 Project: DAF

QC BATCH REPORT

Batch ID: R66440 Instrument ID VOA1 Method: SW1311/8260

MBLK Sample ID: VBLKW-080808-R66440 Units: µg/L Analysis Date: 8/8/2008 12:22 PM

Client ID: Run ID: VOA1_080808B SeqNo: 1463118 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2-Butanone	ND	10								
Benzene	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroform	ND	5.0								
Tetrachloroethene	ND	5.0								
Trichloroethene	ND	5.0								
Vinyl chloride	ND	5.0								
Surr: 1,2-Dichloroethane-d4	54.28	5.0	50	0	109	70-125	0			
Surr: 4-Bromofluorobenzene	56.43	5.0	50	0	113	72.4-125	0			
Surr: Dibromofluoromethane	55.89	5.0	50	0	112	71.2-125	0			
Surr: Toluene-d8	56.45	5.0	50	0	113	75-125	0			

MBLK Sample ID: MBLKV1-080708-R66440 Units: µg/L Analysis Date: 8/8/2008 03:27 PM

Client ID: Run ID: VOA1_080808B SeqNo: 1463122 Prep Date: 8/7/2008 DF: 20

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	100								
1,2-Dichloroethane	ND	100								
1,4-Dichlorobenzene	ND	100								
2-Butanone	ND	200								
Benzene	ND	100								
Carbon tetrachloride	ND	100								
Chlorobenzene	ND	100								
Chloroform	ND	100								
Tetrachloroethene	ND	100								
Trichloroethene	ND	100								
Vinyl chloride	ND	100								
Surr: 1,2-Dichloroethane-d4	1129	100	1000	0	113	70-125	0			
Surr: 4-Bromofluorobenzene	1125	100	1000	0	112	72.4-125	0			
Surr: Dibromofluoromethane	1131	100	1000	0	113	71.2-125	0			
Surr: Toluene-d8	1133	100	1000	0	113	75-125	0			

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range

Client: Navajo Refining Company
 Work Order: 0808118
 Project: DAF

QC BATCH REPORT

Batch ID: R66440 Instrument ID VOA1 Method: SW1311/8260

LCS Sample ID: VLCSW-080808-R66440 Units: µg/L Analysis Date: 8/8/2008 11:31 AM

Client ID: Run ID: VOA1_080808B SeqNo: 1463117 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	49.96	5.0	50	0	99.9	73-124	0			
1,2-Dichloroethane	53.02	5.0	50	0	106	76-120	0			
1,4-Dichlorobenzene	49.45	5.0	50	0	98.9	70-130	0			
2-Butanone	117.9	10	100	0	118	70-130	0			
Benzene	51.29	5.0	50	0	103	70-128	0			
Carbon tetrachloride	50.82	5.0	50	0	102	70-130	0			
Chlorobenzene	51.09	5.0	50	0	102	72-127	0			
Chloroform	51.7	5.0	50	0	103	70-130	0			
Tetrachloroethene	48.39	5.0	50	0	96.8	70-130	0			
Trichloroethene	51.1	5.0	50	0	102	72-129	0			
Vinyl chloride	54.99	5.0	50	0	110	70-130	0			
Surr: 1,2-Dichloroethane-d4	55.67	5.0	50	0	111	70-125	0			
Surr: 4-Bromofluorobenzene	56.72	5.0	50	0	113	72-125	0			
Surr: Dibromofluoromethane	55.5	5.0	50	0	111	71-125	0			
Surr: Toluene-d8	55.23	5.0	50	0	110	75-125	0			

MS Sample ID: 0808119-01AMS Units: µg/L Analysis Date: 8/8/2008 02:34 PM

Client ID: Run ID: VOA1_080808B SeqNo: 1463120 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	75.81	5.0	50	32.95	85.7	73-124	0			
1,2-Dichloroethane	54.05	5.0	50	0	108	76-120	0			
1,4-Dichlorobenzene	50.31	5.0	50	0	101	70-130	0			
2-Butanone	134.2	10	100	0	134	70-130	0			S
Benzene	50.44	5.0	50	0	101	70-128	0			
Carbon tetrachloride	45.78	5.0	50	0	91.6	70-130	0			
Chlorobenzene	49.09	5.0	50	0	98.2	72-127	0			
Chloroform	60.45	5.0	50	6.069	109	70-130	0			
Tetrachloroethene	43.1	5.0	50	0	86.2	70-130	0			
Trichloroethene	48.3	5.0	50	0	96.6	72-129	0			
Vinyl chloride	49.9	5.0	50	0	99.8	70-130	0			
Surr: 1,2-Dichloroethane-d4	57.55	5.0	50	0	115	70-125	0			
Surr: 4-Bromofluorobenzene	55.89	5.0	50	0	112	72-125	0			
Surr: Dibromofluoromethane	56.51	5.0	50	0	113	71-125	0			
Surr: Toluene-d8	57.6	5.0	50	0	115	75-125	0			

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range

Client: Navajo Refining Company
 Work Order: 0808118
 Project: DAF

QC BATCH REPORT

Batch ID: R66440 Instrument ID VOA1 Method: SW1311/8260

MSD Sample ID: 0808119-01AMSD Units: µg/L Analysis Date: 8/8/2008 03:00 PM

Client ID: Run ID: VOA1_080808B SeqNo: 1463121 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	73.93	5.0	50	32.95	82	73-124	75.81	2.51	20	
1,2-Dichloroethane	53.72	5.0	50	0	107	76-120	54.05	0.618	20	
1,4-Dichlorobenzene	50.12	5.0	50	0	100	70-130	50.31	0.37	20	
2-Butanone	139.7	10	100	0	140	70-130	134.2	4.06	20	S
Benzene	50.42	5.0	50	0	101	70-128	50.44	0.0335	20	
Carbon tetrachloride	42.92	5.0	50	0	85.8	70-130	45.78	6.44	20	
Chlorobenzene	50.65	5.0	50	0	101	72-127	49.09	3.12	20	
Chloroform	60.06	5.0	50	6.069	108	70-130	60.45	0.647	20	
Tetrachloroethene	43.56	5.0	50	0	87.1	70-130	43.1	1.07	20	
Trichloroethene	48.99	5.0	50	0	98	72-129	48.3	1.43	20	
Vinyl chloride	50.61	5.0	50	0	101	70-130	49.9	1.42	20	
Surr: 1,2-Dichloroethane-d4	56.18	5.0	50	0	112	70-125	57.55	2.42	20	
Surr: 4-Bromofluorobenzene	57	5.0	50	0	114	72-125	55.89	1.97	20	
Surr: Dibromofluoromethane	56.28	5.0	50	0	113	71-125	56.51	0.4	20	
Surr: Toluene-d8	58.06	5.0	50	0	116	75-125	57.6	0.8	20	

The following samples were analyzed in this batch:

0808118-01A

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range

Client: Navajo Refining Company
Work Order: 0808118
Project: DAF

QC BATCH REPORT

Batch ID: **R66370** Instrument ID **WetChem** Method: **E150.1**

LCS Sample ID: **WLCSW1-080708-R66370** Units: **pH units** Analysis Date: **8/7/2008 06:00 PM**

Client ID: Run ID: **WETCHEM_080807F** SeqNo: **1461683** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6.13	0.10	6	0	102	90-110	0			

DUP Sample ID: **0808118-01ADUP** Units: **pH units** Analysis Date: **8/7/2008 06:00 PM**

Client ID: **DAF** Run ID: **WETCHEM_080807F** SeqNo: **1461691** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6.98	0.10	0	0	0	0-0	6.95	0.431	20	H

The following samples were analyzed in this batch:

0808118-01A

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range

Client: Navajo Refining Company
Work Order: 0808118
Project: DAF

QC BATCH REPORT

Batch ID: **R66449** Instrument ID **WetChem** Method: **SW1010**

LCS Sample ID: **WLCSW1-081108-R66449** Units: **°F** Analysis Date: **8/11/2008 10:30 AM**

Client ID: Run ID: **WETCHEM_080811C** SeqNo: **1463409** Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ignitability	80	50	83	0	96.4	80-120	0			

DUP Sample ID: **0808118-01ADUP** Units: **°F** Analysis Date: **8/11/2008 10:30 AM**

Client ID: **DAF** Run ID: **WETCHEM_080811C** SeqNo: **1463411** Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ignitability	ND	50	0	0	0	0-0	0	0	25	

The following samples were analyzed in this batch:

0808118-01A

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits

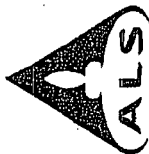
R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range



☐ **ALS Laboratory Group**
10450 Stanciliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

Chain of Custody Form

☐ **ALS Laboratory Group**
3352 128th Ave.
Holland, MI 49424-9263
Tel: +1 616 399 6070
Fax: +1 616 399 6185

Page 1 of 1

Customer Information				Project Information				ALS Project Manager				ALS Work Order #					
Purchase Order				Project Name				Parameter/Method Request for Analysis									
Work Order				Project Number													
Company Name				Bill To Company													
Send Report To				Invoice Attn													
Address				Address													
City/State/Zip				City/State/Zip													
Phone				Phone													
Fax				Fax													
e-Mail Address				e-Mail Address													
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	DAF	8/6/08	1500	L	No	2	X	X	X	X							
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
Sampler(s) Please Print & Sign				Shipment Method				Required Turnaround Time: (Check Box)				Results Due Date:					
Aron Strange				Fed Ex				☐ STD 10 Wk Days ☐ 5 Wk Days ☒ 2 Wk Days ☐ 24 Hour				ASAP					
Relinquished by:				Received by:				Notes:									
Aron Strange				8/6/08 1615													
Relinquished by:				Received by (Laboratory):													
				8/7/08 9:15													
Laboratory (Laboratory):				Checked by (Laboratory):													
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₃ 7-Other 8-4°C 9-5035																	

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.

ALS Group USA, Corp.

Sample Receipt Checklist

Client Name: NAVAJO REFINING

Date/Time Received: 8/7/2008 09:15

Work Order Number 0808118

Received by: ADM

Checklist completed by

Signature

Date

Reviewed by

Initials

Date

Matrix:

Carrier name: FedEx

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Container/Temp Blank temperature in compliance?

Yes ☒

No ☐

Temperature(s)/Thermometer(s):

0.3c

002

Cooler(s)/Kit(s):

2338

Water - VOA vials have zero headspace?

Yes ☐

No ☐

No VOA vials submitted ☒

Water - pH acceptable upon receipt?

Yes ☒

No ☐

N/A ☐

Adjusted?

Checked by

Login Notes:

Client contacted:

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Corrective Action

580818

 **ALS Laboratory Group**
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

CUSTODY SEAL	
Date: 08-06-08	Time: 1700
Name: Jerry Sosa	
Company: SCST	

Seal Broken By:
8/1/08

 **ALS Laboratory Group**
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

CUSTODY SEAL	
Date: 7/16/08	Time: 1015
Name: Rething Co.	
Company: Rething Co.	

Seal Broken By:
8/1/08

 **ALS Laboratory Group**
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

CUSTODY SEAL	
Date: 08-06-08	Time: 1400
Name: Jerry Sosa	
Company: SCST	

Seal Broken By:
8/1/08

 **ALS Laboratory Group**
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

CUSTODY SEAL	
Date: 08-06-08	Time: 1400
Name: Jerry Sosa	
Company: SCST	

Seal Broken By:
8/1/08

ALS Laboratory Group

Date: 11-Aug-08

Client: ALS Laboratory Group
Project: 0808118
Work Order: 0808166

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0808166-01	0808118-01B	Water		8/6/2008 15:00	8/8/2008 10:00	☐

ALS Laboratory Group

Date: 11-Aug-08

Client: ALS Laboratory Group

Project: 0808118

Work Order: 0808166

Sample ID: 0808118-01B

Lab ID: 0808166-01

Collection Date: 8/6/2008 03:00 PM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
CYANIDE, REACTIVE			EPA 7.3.3.2			Analyst: DB
Cyanide, Reactive	ND		40.0	mg/Kg	1	8/11/2008
SULFIDE, REACTIVE			EPA 7.3.4.2			Analyst: DB
Sulfide, Reactive	ND		40.0	mg/Kg	1	8/11/2008

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

ALS Laboratory Group

Client: ALS Laboratory Group
 Work Order: 0808166
 Project: 0808118

Date: 11-Aug-08

QC BATCH REPORT

Batch ID: R60938 Instrument ID WETCHEM Method: EPA 7.3.4.2

MBLK Sample ID: WBLKS1-081108 Units: mg/Kg Analysis Date: 8/11/2008

Client ID: Run ID: WETCHEM_080811B SeqNo: 1012478 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide, Reactive	ND	40								

The following samples were analyzed in this batch:

0808166-01A

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range

Client: ALS Laboratory Group
 Work Order: 0808166
 Project: 0808118

QC BATCH REPORT

Batch ID: **R60939** Instrument ID **WETCHEM** Method: **EPA 7.3.3.2**

MBLK	Sample ID: WBLKS1-081108				Units: mg/Kg		Analysis Date: 8/11/2008			
Client ID:	Run ID: WETCHEM_080811C				SeqNo: 1012502		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	ND	40								

LCS	Sample ID: WLCSS1-081108				Units: mg/Kg		Analysis Date: 8/11/2008			
Client ID:	Run ID: WETCHEM_080811C				SeqNo: 1012503		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	220.2	40	250	0	88.1	75-125	0			

LCSD	Sample ID: WLCSDS1-081108				Units: mg/Kg		Analysis Date: 8/11/2008			
Client ID:	Run ID: WETCHEM_080811C				SeqNo: 1012510		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	220.2	40	250	0	88.1	75-125	220.2	0	35	

MS				Sample ID: 0808166-01A MS			Units: mg/Kg		Analysis Date: 8/11/2008		
Client ID: 0808118-01B				Run ID: WETCHEM_080811C			SeqNo: 1012506		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Cyanide, Reactive	249.6	40	250	0	99.8	50-150	0				

MSD		Sample ID: 0808166-01A MSD				Units: mg/Kg		Analysis Date: 8/11/2008		
Client ID: 0808118-01B		Run ID: WETCHEM_080811C				SeqNo: 1012507		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	249.6	40	250	0	99.8	50-150	249.6	0	35	

The following samples were analyzed in this batch:

0808166-01A

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits

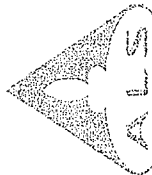
R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range



Subcontractor:
ALS Laboratory Group
3352 128th Ave.
Holland, MI 49424

TEL: (616) 399-6070
FAX: (616) 399-6185
Acct #:

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Date: 07-Aug-08
COC ID: 6586
Due Date: 11-Aug-08

Customer Information

Purchase Order
Work Order
Company Name
Send Report To
Address
City/State/Zip
Phone
Fax
eMail Address

Project Information

Project Name
Project Number
Bill To Company
Inv Attn
Address
City/State/Zip
Phone
Fax
eMail CC

Parameter/Method Request for Analysis

A Cyanide, Reactive (SW-846)
B Sulfide, Reactive (SW-846)
C
D
E
F
G
H
I
J

Matrix
Collection Date 24hr
Bottle
Water
8/6/2008 15:00
(1) 250PNEAT

A B C D E F G H I J
X X

Comments:

Please analyze for Reactive Cyanide & Reactive Sulfide. RUSH!!! 48 HOUR TAT!! Need results by 8/11/08.

Relinquished by:

Date/Time

Received by:

Date/Time

Cooler IDs

Report/QC Level

ALS

8/7/08

WPS

8/8/08 1000

Std

ALS USA MI, CORP

Sample Receipt Checklist

Client Name ELAB-HOU

Date/Time Received: 8/8/2008 10:00

Work Order Number 0808166

Received by: ARB

Checklist completed by

[Signature] 8/8/08
Signature Date

Reviewed by

[Signature] 8/11/08
Initials Date

Matrix:

Water

Carrier name: UPS

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Container/Temp Blank temperature in compliance?

Yes ☒

No ☐

Temperature(s)/Thermometer(s):

0.6 C

Cooler(s)/Kit(s):

Water - VOA vials have zero headspace?

Yes ☐

No ☐

No VOA vials submitted ☒

Water - pH acceptable upon receipt?

Yes ☒

No ☐

N/A ☐

Adjusted?

No

Checked by

[Signature]

Login Notes:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Corrective Action

ORIGIN ID: JG04 (281) 530-5656
SHIPPING
ALS LABORATORY GROUP
10450 STANCLIFF
SUITE 210
HOUSTON, TX 77099
UNITED STATES US

Ship Date: 07AUG08
Weight: 23.9 LB
System#: 300130/CAFE2356
Account: S *****

TO RECEIVING

E-LAB ANALYTICAL, INC.
3352 128TH AVE.

HOLLAND, MI 49424

Dept: subcontract

Delivery Address
Barcode

BILL SENDER



CLS050107/22/23

FedEx. PRIORITY OVERNIGHT
Empl# 630018 02:06 08AUG08
TRK# 6749 3960 5090 FORM 0201
49424 -MI-US

GRR
08AUG08

NL HLMA

PRIORITY OVERNIGHT

TRK# 6749 3960 5090 Form 0201

49424 -MI-US

FRI
Deliver By:
GRR 08AUG08
AA

NL HLMA

ALS Laboratory Group

10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887



CUSTODY SEAL	
Date: 8/1/08	Time: 1100
Name: R. GARRA	
Company: ALS	
Seal Broken By: AB	Date: 8/8/08

Olec
X3