GW - ___014___

MEETINGS

Chavez, Carl J, EMNRD

Subject:	Lovington Refinery (GW-014) Annual Report Communication Meeting
Location:	Telephone
Start:	Thu 7/21/2011 1:30 PM
End:	Thu 7/21/2011 2:30 PM
Recurrence:	(none)
Meeting Status:	Meeting organizer
Organizer:	Chavez, Carl J, EMNRD
Required Attendees:	mdelacruz@lovington.org; Chavez, Carl J, EMNRD; Michael Leighton; VonGonten, Glenn, EMNRD; Gonzales, Elidio L, EMNRD

Call Carl at (505) 476-3490.

Discuss areas of contamination based on Annual Report for follow-up with Navajo Refining.

Conference Call Communication:

1) City will send e-mail to operator requesting the status on the City's inquiry into the Fire Water Pond and water conservation issues.
2) Water use fee from City non-chlorinated or non-treated (13-15k b/d) is $2.16 per 1000 gal. Operator had previously estimated about 85 – 90k b/d.
3) Effluent fee (~400,000 gal/day) is 0.002 cents/gal.
4) OCD will send draft letter review of annual report requesting corrective actions at Tanks 1202 and 1204 next week for City of Lovington review and input only anything missed by the OCD. Target date for final letter Friday Noon on 8/5/2011.

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Tuesday, December 07, 2010 4:59 PM
To: 'Moore, Darrell'; 'Lackey, Johnny'
Cc: VonGonten, Glenn, EMNRD
Subject: RE: Lovington Permit Response

Darrell:

Good afternoon.

Please submit the information for OCD section and records highlighted in blue below by December 15, 2010 for OCD records.

> *Section 13A: The submittal of all underground process/waste water lines documentation, since the permit was issued is requested.* **Attached and labeled "Lovington Underground Line Tests" is the documentation for process lines. Also attached, labeled "Lea Sewer Testing" is the documentation for the sewer testing done this permit. We are currently testing lines at Lovington and those results will be available by December 1, 2010 if OCD would like to see those.**

Also, does Navajo Refining Company (NRC) wish to submit and reference facility monitoring by "Facility-Wide Ground Water Monitoring Plan- FWGWMP" similar to the Artesia Refinery? Please inform the OCD by December 15, 2010 on this item. The OCD is currently reviewing the investigation report that was submitted after the 10/6 meeting in Santa Fe. The FWGWMP may allow NRC the opportunity to propose a monitoring program for the facility based on the investigation. OCD will likely need to assess the monitoring program for the facility as part of its review of the final report submitted by NRC.

Please contact me if you have questions. 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/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Moore, Darrell [mailto:Darrell.Moore@hollycorp.com]
Sent: Wednesday, November 10, 2010 9:12 AM
To: Chavez, Carl J, EMNRD
Cc: Lackey, Johnny; mleighton@lovington.org
Subject: Lovington Permit Response

Carl,

Our submittal to your requests from our meeting of October 6, 2010 is included. I have broken down the requests into the two Discharge Permits GW-014 and GW-028 and will address them in two separate emails. In your email of October 12, 2010 there are some misunderstandings regarding the two permits and I will point those out below.

NAVAJO LOVINGTON REFINERY REQUESTS

The operator installed new hazardous waste storage area at the facility that was not required under the discharge permit. Since this area could be used to temporarily store oilfield products, etc, please provide location and photo(s) of this storage area. **Attached above, labeled "Lovington Waste Pad" is a photo of the pad. Also, on the attachment above labeled "Lovington Aerial" the waste pad is labeled.**

Installed cement containment areas approved by the OCD to control releases from areas where spills would most likely be expected. Provide OCD with map of location and photos. **Attached above, labeled "Cement pad_lovington" is a photo of the new cement area. Also, on the aerial of Lovington, the cement pad is marked.**

Status of sanitary effluent: Installed recent septic systems under NMED permit at facility. Provide OCD with documentation that work was completed with tank specs and materials used, etc. **In the attachment above labeled "Lovington Septic Systems", all the documentation from this project is included.**

Section 13A: The submittal of all underground process/waste water lines documentation, since the permit was issued is requested. **Attached and labeled "Lovington Underground Line Tests" is the documentation for process lines. Also attached, labeled "Lea Sewer Testing" is the documentation for the sewer testing done this permit. We are currently testing lines at Lovington and those results will be available by December 1, 2010 if OCD would like to see those.**

Section 14 & 17(iii): Septic system upgrade status and proof of permit application from NMED for control room septic system installed 6 or 9/2009 is requested. According to Operator, this information has already been provided, but OCD could not locate. OCD does not have a record of this in its files. Please submit proof of permit application with NMED. **This was answered above.**

OCD requests that the map be updated for the final report to include: new tanks, secondary containment areas, hazardous waste storage area, and centralized chemical storage area(s). **This will be updated in the report that is due November 15, 2010.**

Section 24: The financial assurance (FA) deadline of 9/30/2009 was missed. OCD verified that the FA was for facility decommissioning and 30 year post ground water monitoring period. OCD requires that similar to the Lovington Refinery, the operator shall submit an FA estimate to the OCD by December 31, 2010 for OCD review and a determination of final bond amount to satisfy this section of the permit. A bond submittal shall be submitted within 1 month of the OCD final assessed amount. **We believe this is for the Artesia facility and is not applicable to Lovington. The Lovington FA has been submitted to OCD.**

OCD inquired about two potential spill locations from a recent Google Earth GIS view of the facility near Tank 1214 and southeast of MW-2. OCD Requests that the operator inspect these areas to verify that spills/releases exist or are not present in the field. The operator should respond to this item within 4 weeks of the meeting date or by COB on November 5, 2010. **On November 3, 2010, Johnny Lackey and Darrell Moore inspected both of these locations and verified that there are no spills in these areas.**

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

Chavez, Carl J, EMNRD

From: Moore, Darrell [Darrell.Moore@hollycorp.com]
Sent: Wednesday, November 10, 2010 9:12 AM
To: Chavez, Carl J, EMNRD
Cc: Lackey, Johnny; mleighton@lovington.org
Subject: Lovington Permit Response
Attachments: Lovington Aerial.pdf; Lovington Waste Pad.JPG; Cement Pad-Lovington.JPG; Lovington Septic Systems.pdf; Lovington Underground Line tests.pdf; LEA SEWER TESTING.xls

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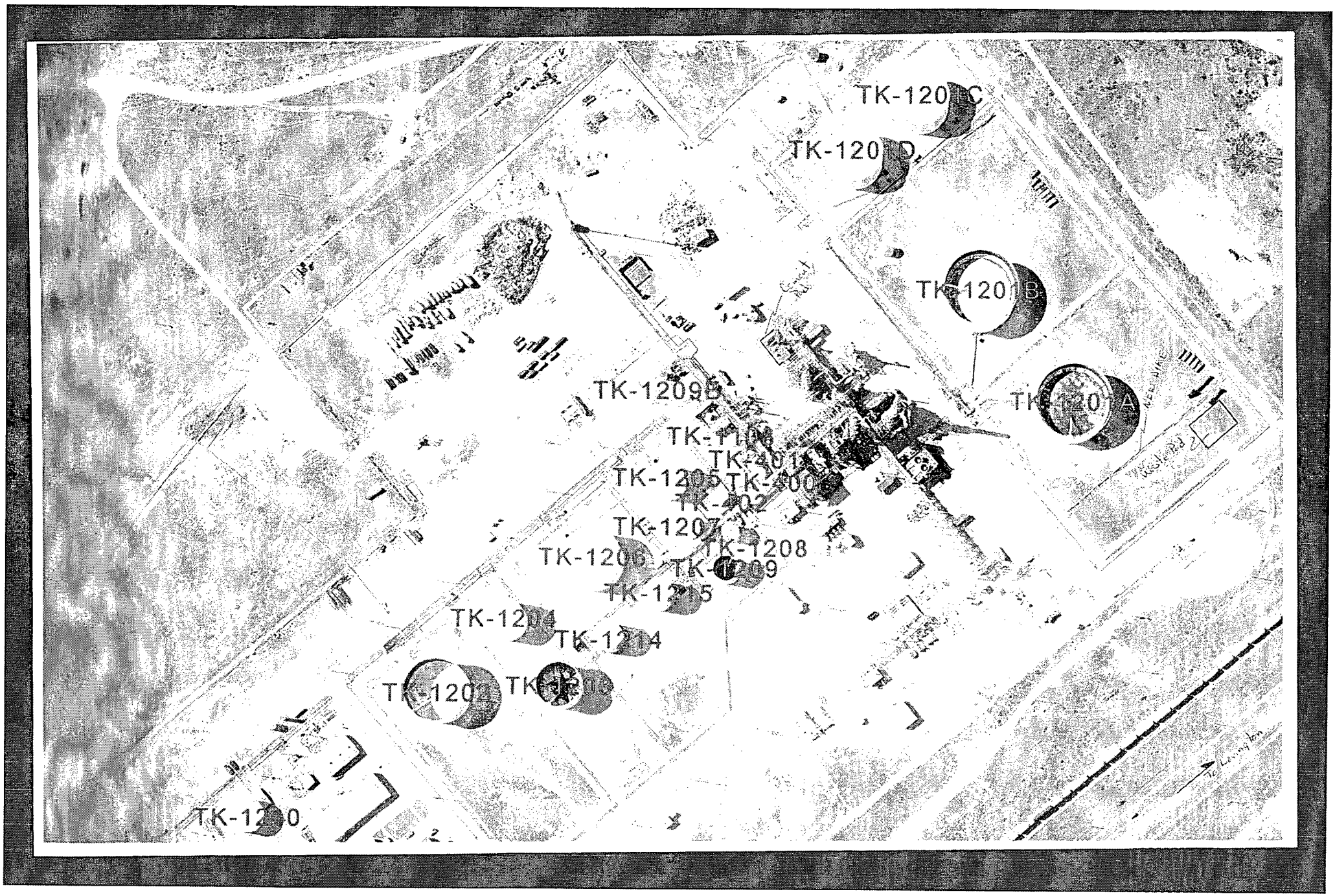
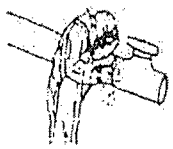
Darrell Moore
Environmental Manager for Water and Waste
Navajo Refining Company, LLC
Phone Number 575-746-5281
Cell Number 575-703-5058
Fax Number 575-746-5451


TK-1201C
TK-1201D
TK-1201B
TK-1201A
TK-1209B
TK-1205
TK-1207
TK-1206
TK-1208
TK-1209
TK-1215
TK-1204
TK-1214
TK-1203
TK-1200

Lovington Plant Undergound Line Testing
ACTIVE LINES

SKETCH #	SERVICE	OPERATING PRESSURE	TEST PRESSURE	TEST DATE	Comments
SK-100 - SK-101	Crude transfer	40#	70#	6/24/2010	
SK-102	Hobbs Crude R.V.	54#	80#	7/12/2010	
SK-105 - SK-108	Crude transfer to pipeline	260#	390#	10/1/2010	
SK-110	Crude truck	45#	70#	6/22/2010	
	Unloading	45#	70#	6/23/2010	
SK-111 - SK-112	Waste Water	20#	30#	7/6/2010	
	API to 1201C TK				
SK-113	Waste Water	35#	55#	6/25/2010	
	1209B TK to 1201D TK				
SK-114 - SK-115	Waste Water	55#	85#	6/29/2010	
	1201C TK to 1209B TK				
SK-117 - SK-118	Effluent Water to City	80#	181#	10/29/2010	
SK-120	Naptha Sump to Light Slop	35#	50#	6/23/2010	
SK-138	1205TK Suction	45#	425#	6/17/2010	New pipe was installed
SK-150	Incoming Mapco	120#	210#	8/9/2010	
SK-150	Incoming Mapco	450#	660#	8/5/2010	New pipe was installed
SK-157	101B TK to Boosters	35#	50#	7/1/2010	

Hydrostatic Test Data Sheet



R. Florez Welding
P.O. Box 5221(88221)
301 W.Wood Ave.
Carlsbad, NM 88220
Phone/Fax 505-885-6345

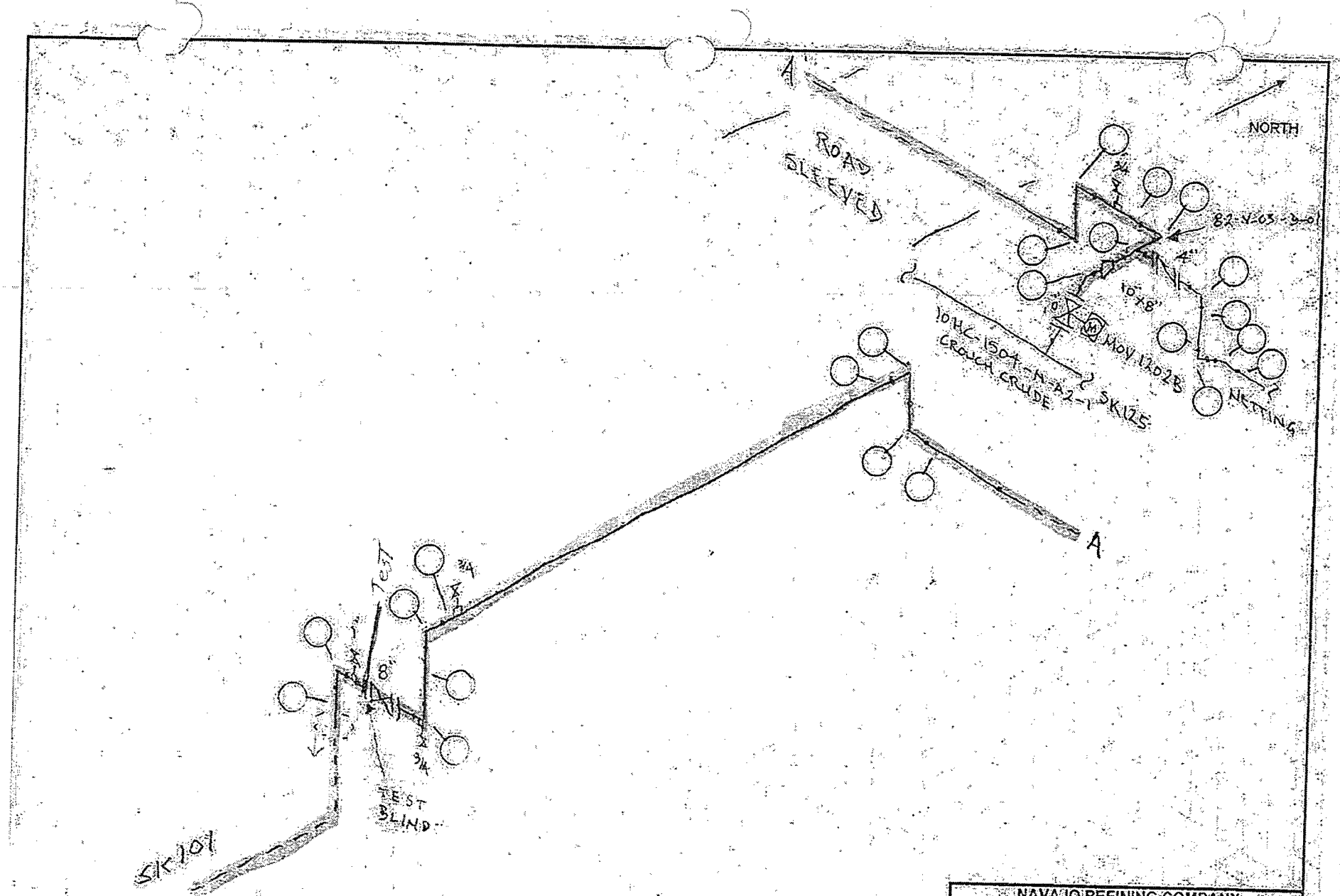
Client: Navajo Refining
Date: 6-24-10
Location: LCA
Project:
P.O. #:

Drawing #: 101
Line #: CRUDE TRANSFER
ISO #:
Equipment #:
Vessel #:
Design Press.:
Design Temp.:
Meter Type:
Type of Pressure Equipment:
Dead Weights Type:
Pressure Gauge Cert./Date: 9833574

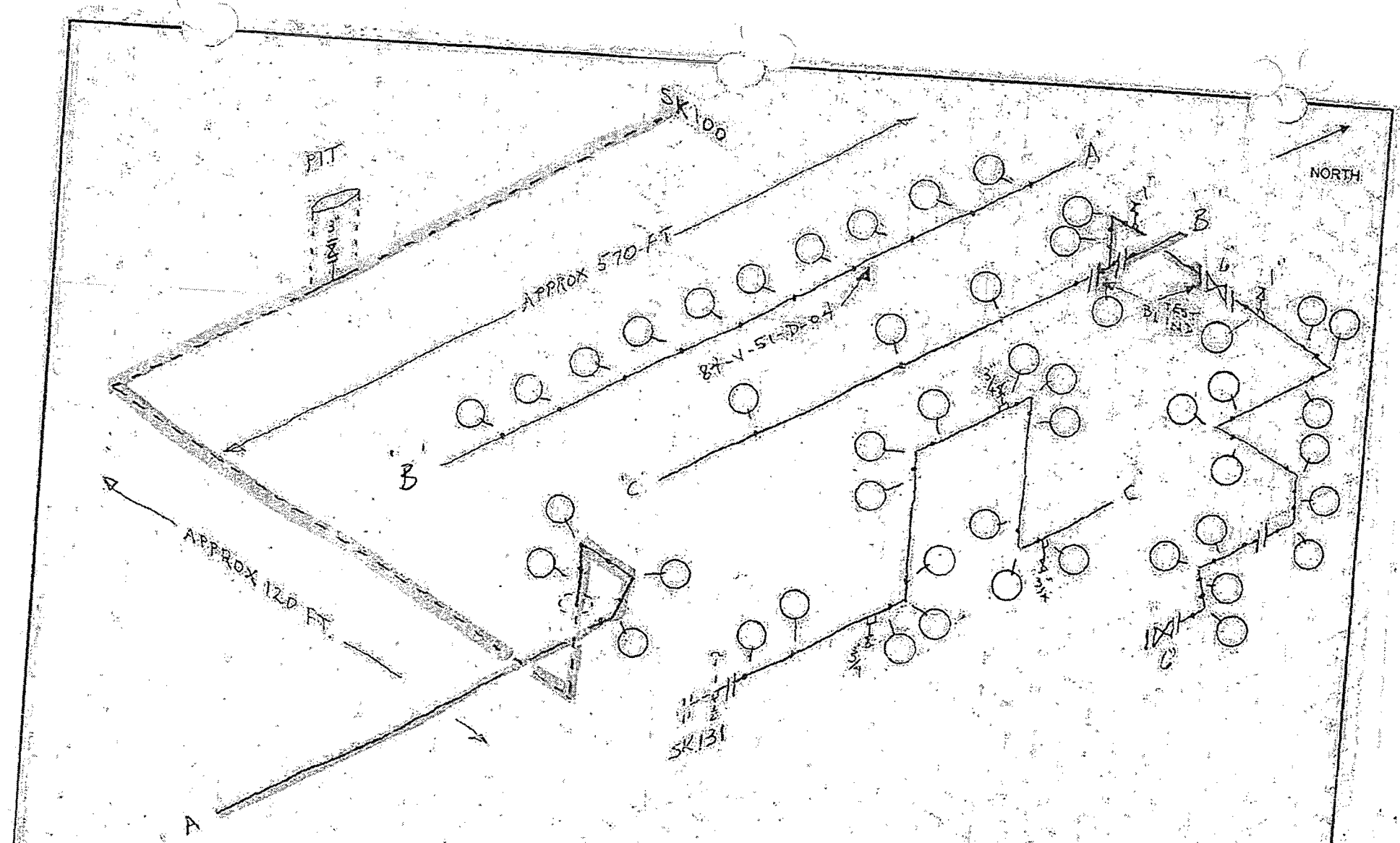
Test Date: 6-24-10
Test Time Start: 11:25 AM
Test Time End: 1:15 PM
Test Medium: Water
Pressure Min.: 70
Ambient Temp:
Pressure Max: 70
Actual Test Press.:
Actual Temp.:
Spec. Ref.:
Type of Substance: water
Pressure Gauge S.N.:

Test Completed and Accepted By:		
R. Florez Welding Testing Rep.:	Date: 6/24/10	Remarks:
Client Rep.:	Date: 6-24-10	Remarks:
Operation Rep.:	Date: 6/24/2010	Remarks:
Inspection Rep.:	Date:	Remarks:

Special Notes: Operating pressure 40 Test pressure 70
82-V-03-D-01



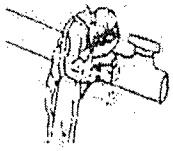
NAVAJO REFINING COMPANY	
ARTESIA, NEW MEXICO	
REFERENCE 82-V-03-D-01	
LINE NO.	
SERVICE CRUDE TRANSFER	
UNIT 84	SKETCH 100



NAVAJO REFINING COMPANY	
ARTESIA, NEW MEXICO	
REFERENCE	84-V-51-D-04
LINE NO.	
SERVICE	CRUDE TRANSFER
UNIT	84
SKETCH	101

1942 8½" x 11" 35345 ISOMETRIC

Hydrostatic Test Data Sheet



R. Florez Welding
P.O. Box 5221(88221)
301 W.Wood Ave.
Carlsbad, NM 88220
Phone/Fax 505-885-6345

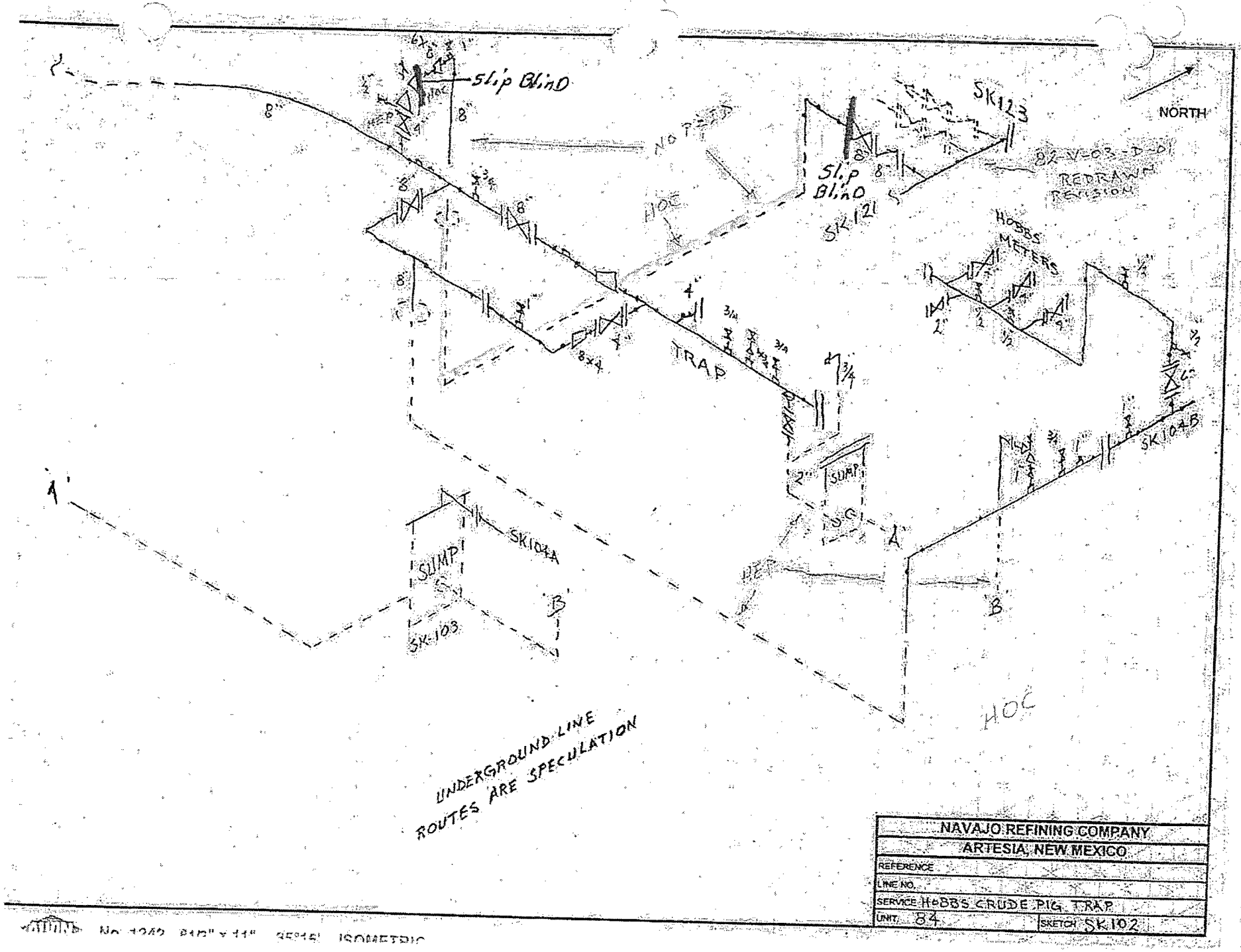
Client: NAVAJO Refining
Date: 7-12-10
Location: Lovington Nm.
Project:
P.O. #:

Drawing # SK 102
Line #: HOBBS CRUDE STATION R.V.
ISO #:
Equipment #:
Vessel #:
Design Press.:
Design Temp.:
Meter Type:
Type of Pressure Equipment: Fire Hydrant Headpressure
Dead Weights Type:
Pressure Gauge Cert./Date: 6-22-11

Test Date: 7-12-10
Test Time Start: 1:00 pm
Test Time End: 2:00 pm
Test Medium: WATER
Pressure Min.: 80 psi
Ambient Temp:
Pressure Max: 80 psi
Actual Test Press.:
Actual Temp.:
Spec. Ref.:
Type of Substance: WATER
Pressure Gauge S.N.: 21583

Test Completed and Accepted By:		
R. Florez Welding Testing Rep.: Dwayne L Davis	Date: 7-12-10	Remarks:
Client Rep.:	Date: 7-12-10	Remarks:
Operation Rep.:	Date:	Remarks:
Inspection Rep.:	Date:	Remarks:

Special Notes: HOBBS CRUDE STATION R.V. operating pressure AT 54 psi Test AT 80 psi Took out product put in one 8" 150 slip Blind and one 6" 150 slip Blind and Hydro AT 80 psi Drain WATER and pull Slip Blinds and gave BACK To oper.


Slip Blind
8"
NOTED
HOC
Slip Blind
SK-121
SK123
NORTH
82-V-03-D-01
REDRAWN
REVISION
HOBBS METERS
TRAP
4"
3/4"
2"
SUMP
SK104A
SK104B
SUMP
SK-103
A
B
HOC
UNDERGROUND LINE
ROUTES ARE SPECULATION
NAVAJO REFINING COMPANY
ARTESIA, NEW MEXICO
REFERENCE
LINE NO.
SERVICE HOBBS CRUDE PIG TRAP
UNIT 84
SKETCH SK 102

Navajo Refining
501 East Main St Artesia, NM 88210

Rev 1
07/18/2010

SK-105-108

Test Acceptance Form

Project: Crude Transfer To pipeline Work Authorization: _____

Test Package _____ Unit 84-V52-D-09 Date 10-1-10

Line # 12"-HC 8353-N-A2-1 Line Spec _____

NDE Requirements	Craft	Insp
Hydro	DLD	

Pre Hydro Requirements	Craft	Insp

Medium Water Actual Pressure 390 Date 10-1-10

Pressure 390 Pressure Drop 0 Gauge # 21590

Temp AMB Start Time 11:00 AM End Time 12:00

Hydro Punch List:	Item Released Craft	Insp
	DLD	

Test Accepted Craft Dwayne L Davis Jr Date 10-1-10

Inspection [signature] Date 10-22-10

Pre Com Punch List:	Item Released Craft	Insp

Check List

	Craft	Inspection	Operations
High and Low point bleeders are plugged (and/or) blinded	DLD	[signature]	[signature]
Correct gaskets are installed	DLD	[signature]	[signature]
Correct bolts are installed and have been checked for tightness	DLD	[signature]	[signature]
All isolation points have been restored for service	DLD	[signature]	[signature]
All supports, guides, and stops are installed	DLD	[signature]	[signature]
Insulation and tracing are installed		N/A	[signature]
All valves are positioned for service			[signature]
Nozzle stress from piping has been checked			

Commission Accepted

* Note: No piping will be released to service until these Signatures have been obtained.

Craft Dwayne L Davis Jr Date 10-1-10

Inspection [signature] Date 10-22-10

Operations Richard L Hammack Date 10-22-10

Navajo Refining
501 East Main St Artesia, NM 88210

Rev 1
07/18/2010

Test Acceptance Form

SK-105-108

Project: 3" 150 Valve for CRUDE line Work Authorization:

Test Package ____ Unit 84-V-52-D-09 Date 10-18-10

Line # 12"-HC-8353-N-A2-1 Line Spec ____

NDE Requirements Craft JC Insp

HyDro 3" Valve Not included in original Hydro

Pre Hydro Requirements Craft JC Insp

Medium WATer Actual Pressure 445 Date 10-18-10

Pressure 425 Pressure Drop +20 Gauge # 21590

Temp AMB Start Time 10:45 End Time 11:15

Hydro Punch List: Item Released Craft JC Insp

Test Accepted Craft ____ Date 10/18/2010

Inspection ____ Date 10/18/2010

Pre Com Punch List: Item Released Craft Insp

Check List

	Craft	Inspection	Operations
High and Low point bleeders are plugged (and/or) blinded	O.L.D.		
Correct gaskets are installed	O.L.D.		
Correct bolts are installed and have been checked for tightness	O.L.D.		
All isolation points have been restored for service	O.L.D.		
All supports, guides, and stops are installed	O.L.D.		
Insulation and tracing are installed			
All valves are positioned for service			
Nozzle stress from piping has been checked	O.L.D.		

Commission Accepted * Note: No piping will be released to service until these Signatures have been obtained.

Craft ____ Date 10-18-10

Inspection ____ Date 10-22-10

Operations ____ Date ____

Navajo Refining
501 East Main St Artesia, NM 88210

Rev 1
07/18/2010

Test Acceptance Form

SK-105-108

Project: _____ Work Authorization: _____

Test Package _____ Unit _____ Date 10-4-10

Line # 12-HC-8353-N-A2-1 & Branch Blind Line Spec _____

NDE Requirements	Craft	Insp
Hydro	DLD	SL

Pre Hydro Requirements	Craft	Insp

Medium Water Actual Pressure 450 Date 10-4-10

Pressure 450 Pressure Drop 0-3 Gauge # 21590

Temp AMB Start Time 16:10 End Time 16:20

Hydro Punch List: Item Released Craft Insp

* Leak present on test tree seals welds good. SL

Test Accepted Craft Dwayne L Daniel Date 10-4-10

Inspection SL Hall Date 10-4-10

Pre Com Punch List: Item Released Craft Insp

Check List

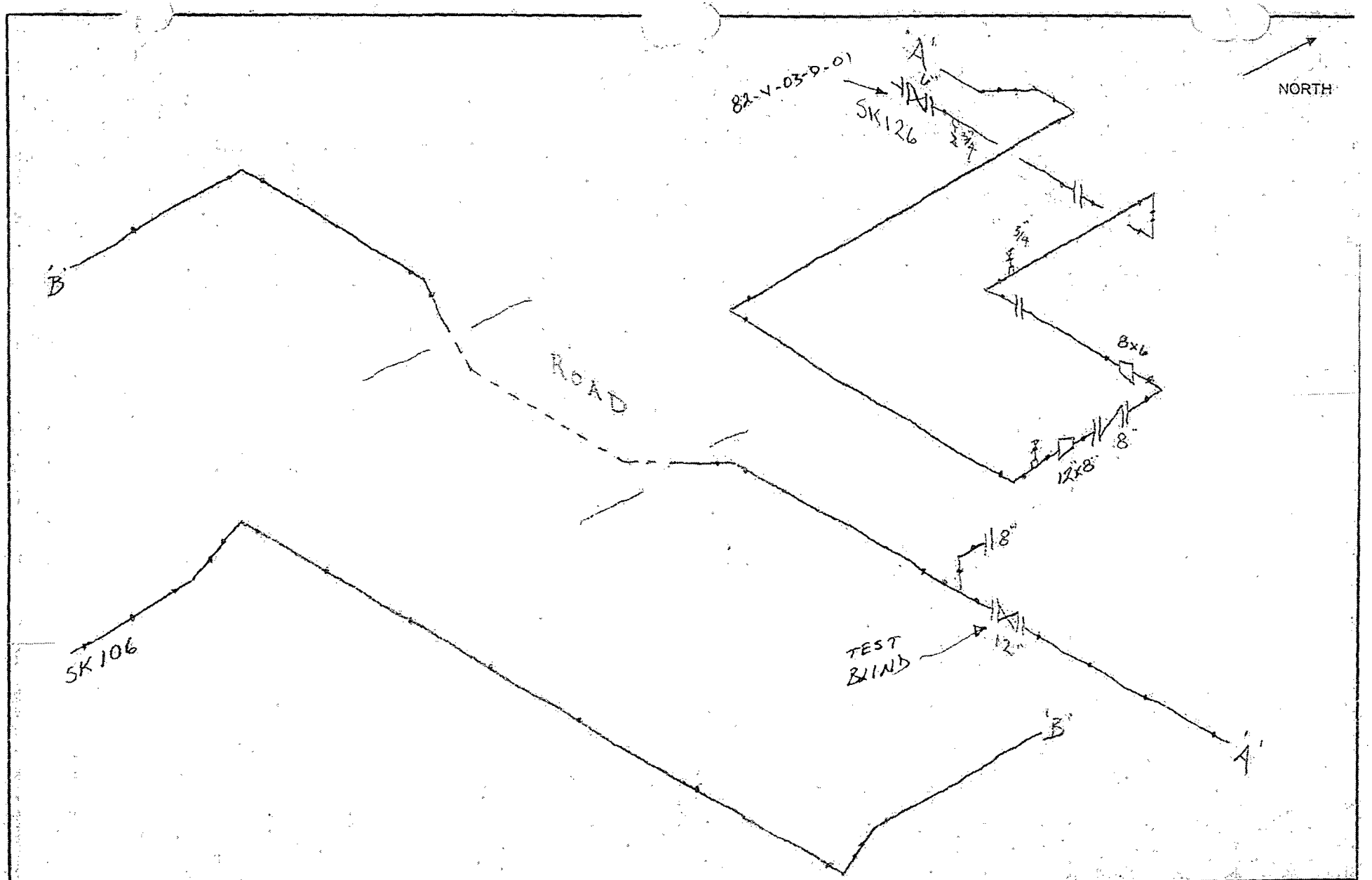
	Craft	Inspection	Operations
High and Low point bleeders are plugged (and/or) blinded	DLD		
Correct gaskets are installed	DLD		
Correct bolts are installed and have been checked for tightness	DLD		
All isolation points have been restored for service			
All supports, guides, and stops are installed			
Insulation and tracing are installed			
All valves are positioned for service			
Nozzle stress from piping has been checked			

Commission Accepted * Note: No piping will be released to service until these Signatures have been obtained.

Craft Dwayne L Daniel Date 10-4-10

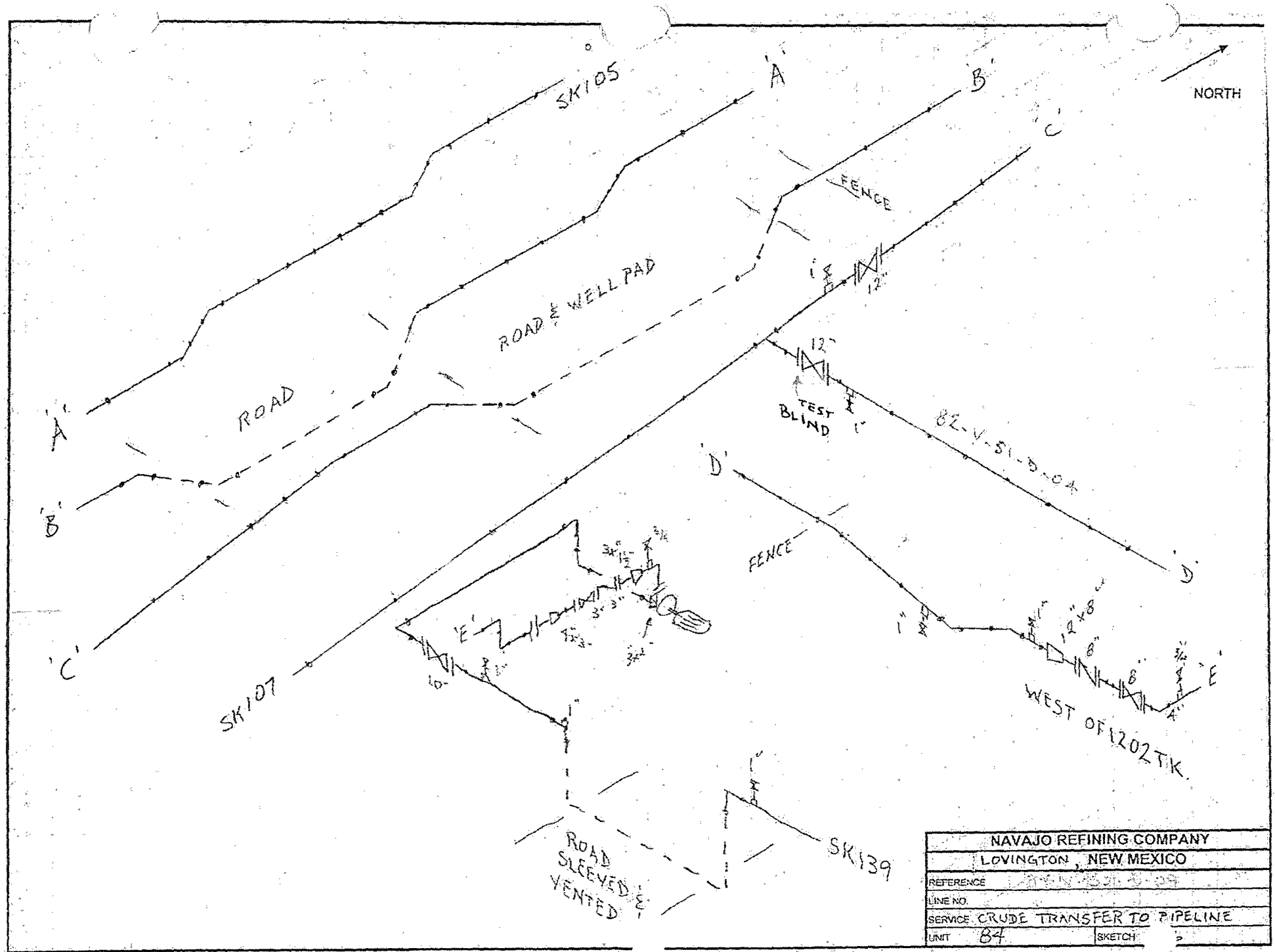
Inspection SL Hall Date 10-22-10

Operations _____ Date _____



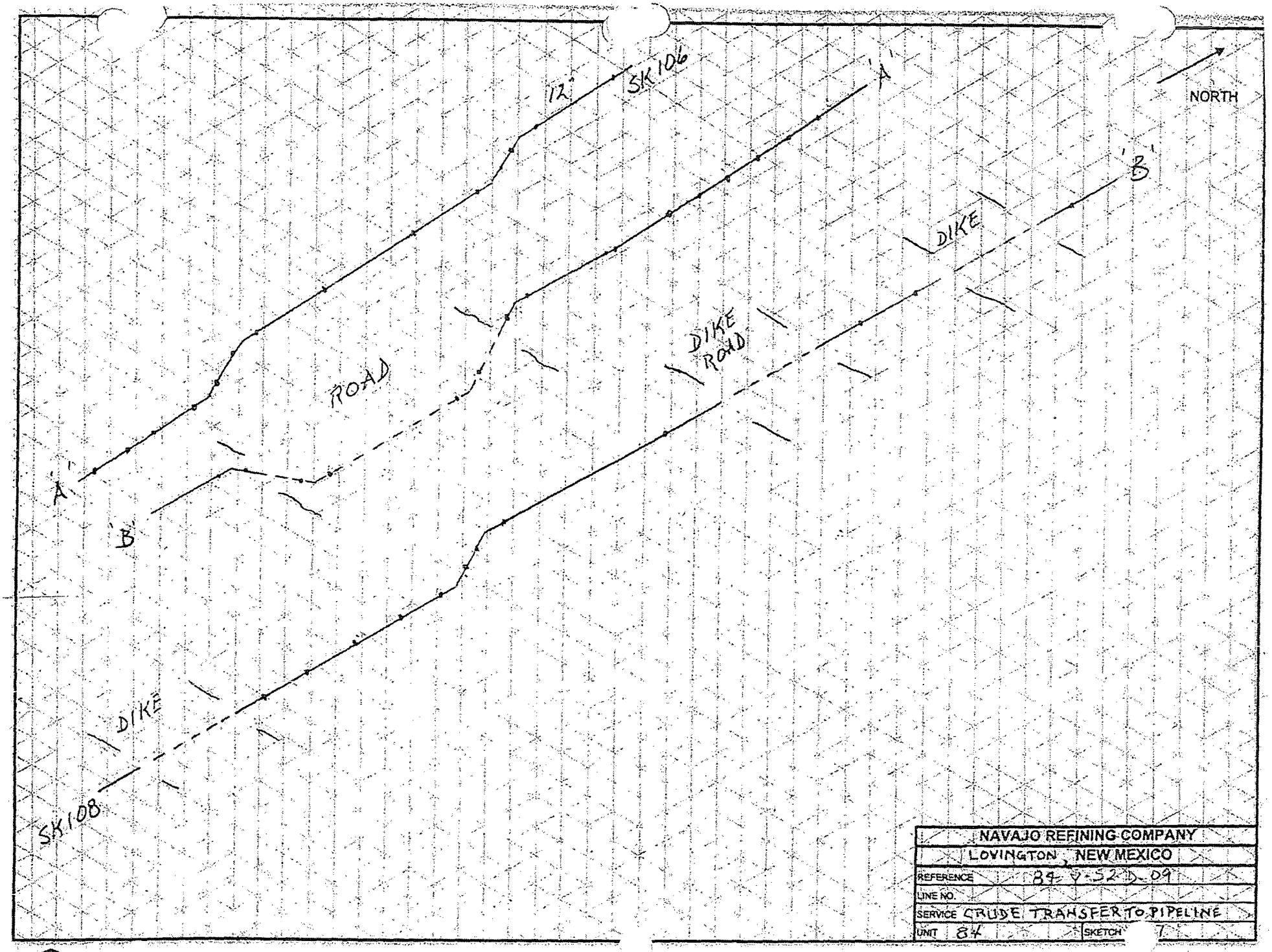
NAVAJO REFINING COMPANY	
ARTESIA, NEW MEXICO	
REFERENCE 82-V-03-D-01	
LINE NO.	
SERVICE CRUDE TRANSFER TO PIPELINE	
UNIT 84	SKETCH 05

1242 8½" x 11" 35°18' ISOMETRIC



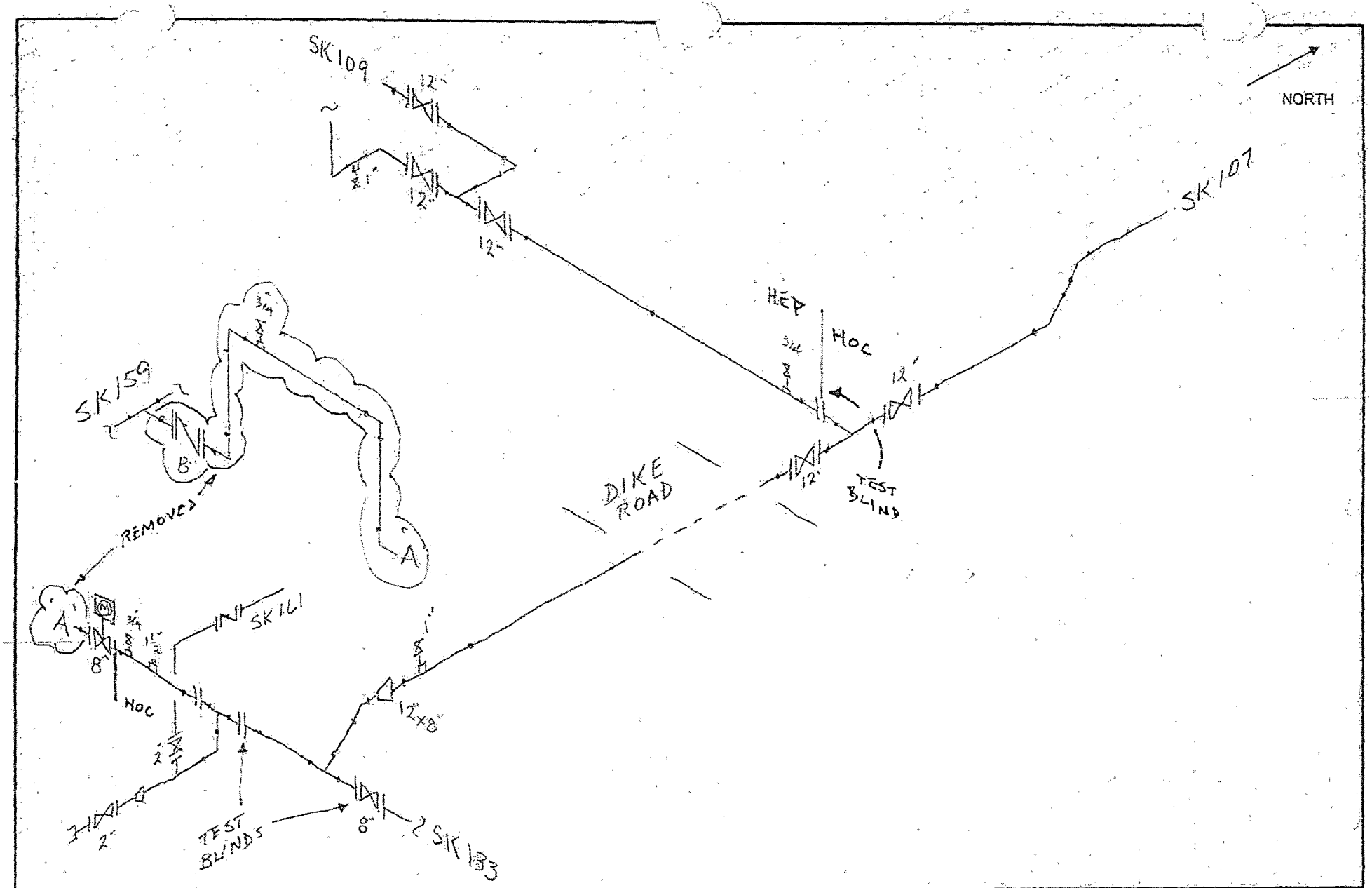
NAVAJO REFINING COMPANY	
LOVINGTON, NEW MEXICO	
REFERENCE	
LINE NO.	
SERVICE CRUDE TRANSFER TO PIPELINE	
UNIT 84	SKETCH

ALVIN No. 2 81/2" x 11" 35°16' ISOMETRIC



NAVAJO REFINING COMPANY	
LOVINGTON, NEW MEXICO	
REFERENCE	89-Y-52-D-09
LINE NO.	
SERVICE	CRUDE TRANSFER TO PIPELINE
UNIT 84	SKETCH 7

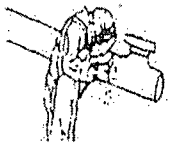
ALVIN No. 2 81/2" x 11" 35°16' ISOMETRIC



NAVAJO REFINING COMPANY	
LOVINGTON, NEW MEXICO	
REFERENCE	
LINE NO.	
SERVICE	CRUDE TRANSFER TO PIPELINE
UNIT 89	SKETCH 208

ALVIN No. 2 81/2" x 11" 35°16' ISOMETRIC

Hydrostatic Test Data Sheet



R. Florez Welding
P.O. Box 5221(88221)
301 W.Wood Ave.
Carlsbad, NM 88220
Phone/Fax 505-885-6345

Client: NAVAJO Refining LEA.
Date: 6-22-10
Location: Lovington
Project:
P.O. #:

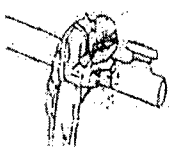
Drawing #: 110
Line #: 4-HC-1498-N-A2-1
ISO #:
Equipment #:
Vessel #:
Design Press.:
Design Temp.:
Meter Type:
Type of Pressure Equipment: Baker Pump
Dead Weights Type:
Pressure Gauge Cert./Date: 98335 74

Test Date: 6-22-10
Test Time Start: 12:00 PM
Test Time End: 1:15 PM
Test Medium: water
Pressure Min.: 70 PSI
Ambient Temp:
Pressure Max:
Actual Test Press.: 70 PSI
Actual Temp.:
Spec. Ref.:
Type of Substance: water
Pressure Gauge S.N.:

Test Completed and Accepted By:		
R. Florez Welding Testing Rep.:	Date: 6-22-10	Remarks:
Client Rep.:	Date: 6-22-10	Remarks:
Operation Rep.:	Date: 6-22-10	Remarks:
Inspection Rep.:	Date:	Remarks:

Special Notes: Operating pressure at 45 PSI Test #1

Hydrostatic Test Data Sheet



R. Florez Welding
P.O. Box 5221(88221)
301 W.Wood Ave.
Carlsbad, NM 88220
Phone/Fax 505-885-6345

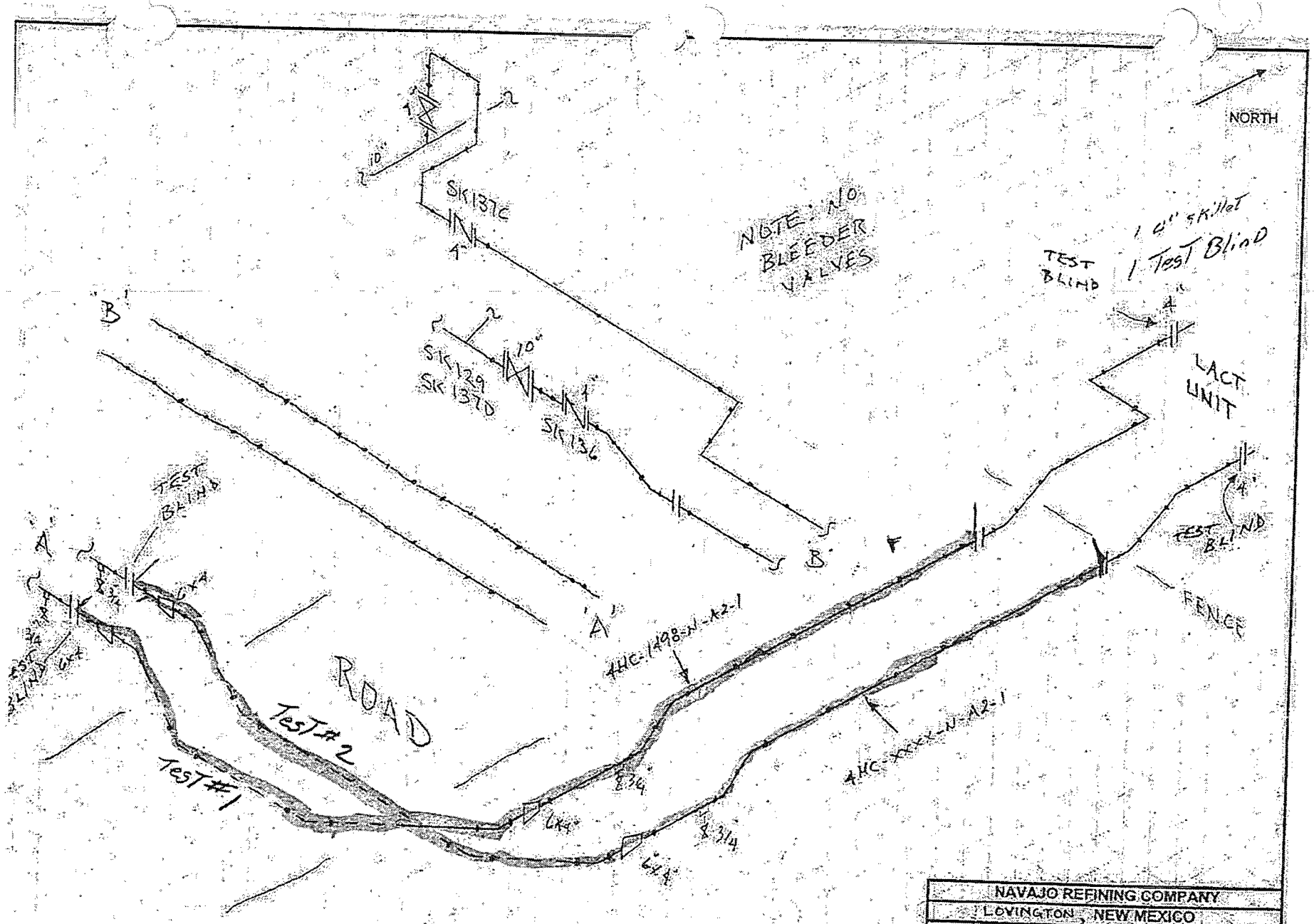
Client: NAVAJO Refining LEA.
Date: 6-23-10
Location: Loving Tex
Project:
P.O. #:

Drawing #: 110
Line #: 4-HC-1498-N-A2-1
ISO #:
Equipment #:
Vessel #:
Design Press.:
Design Temp.:
Meter Type:
Type of Pressure Equipment: Fire Hydrant Headpressure
Dead Weights Type:
Pressure Gauge Cert./Date: 9833574

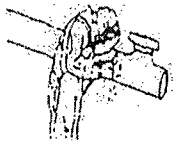
Test Date: 6-23-10
Test Time Start: 10:50 AM
Test Time End: 11:55 AM
Test Medium: Water
Pressure Min.: 70 PSI
Ambient Temp:
Pressure Max: 70 PSI
Actual Test Press.:
Actual Temp.:
Spec. Ref.:
Type of Substance: Water
Pressure Gauge S.N.:

Test Completed and Accepted By:		
R. Florez Welding Testing Rep.:	Date: 6-23-10	Remarks:
Client Rep.:	Date: 6-23-10	Remarks:
Operation Rep.:	Date: 6-23-10	Remarks:
Inspection Rep.:	Date:	Remarks:

Special Notes: operating pressure AT 45 psi Test #2


NORTH
SK 137C
NOTE: NO BLEEDER VALVES
TEST BLIND
1 TEST BLIND
SK 129
SK 137D
SK 136
LACT UNIT
TEST BLIND
FENCE
ROAD
TEST #2
TEST #1
4HC-1498-N-A2-1
4HC-XXXX-N-A2-1
NAVAJO REFINING COMPANY
LOVINGTON, NEW MEXICO
REFERENCE 82-V-63-D-01
LINE NO. 4HC-1498-N-A2-1
SERVICE CRUDE TRUCK UNLOADING
UNIT 84
SKETCH NO. 17

Hydrostatic Test Data Sheet



R. Florez Welding
P.O. Box 5221(88221)
301 W.Wood Ave.
Carlsbad, NM 88220
Phone/Fax 505-885-6345

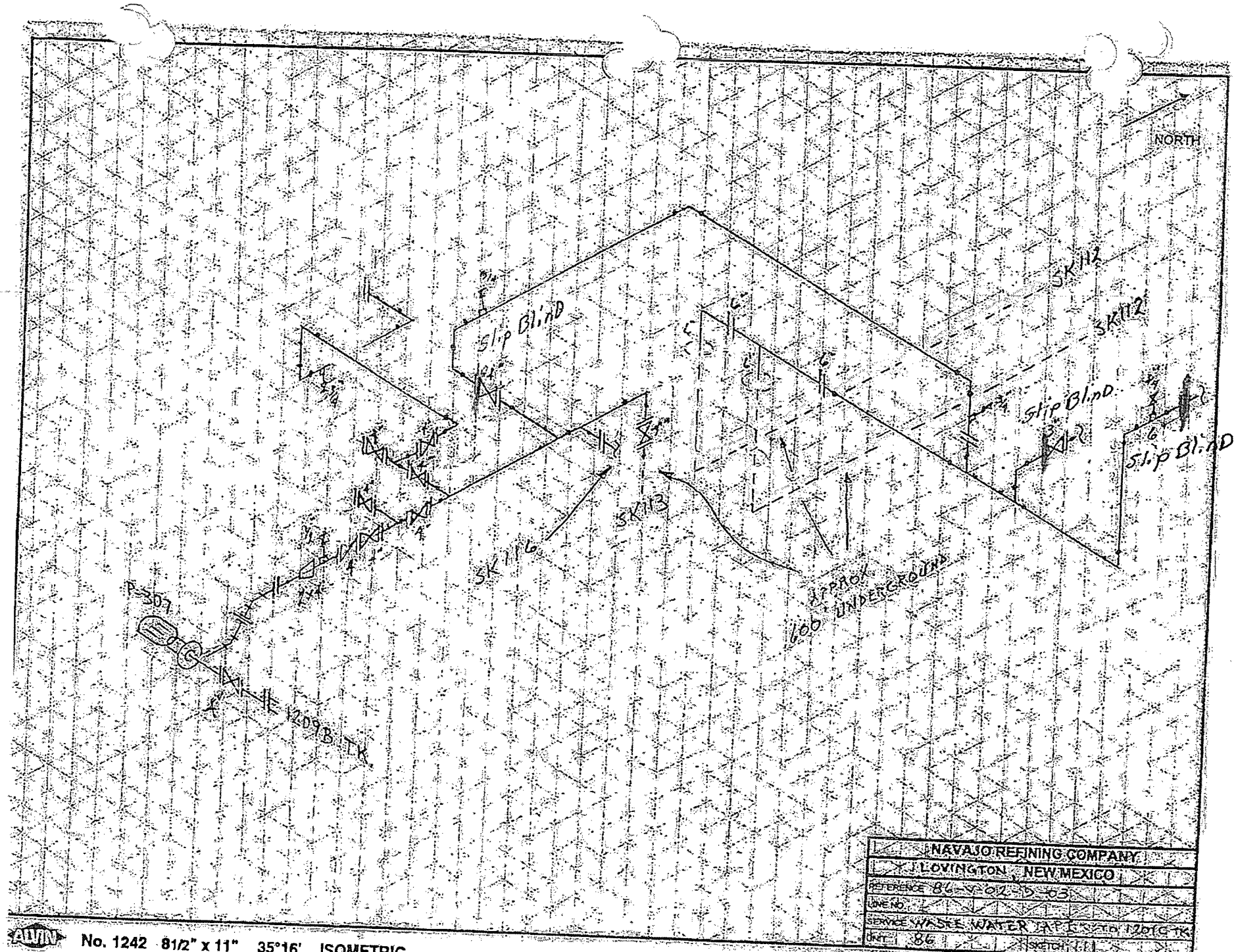
Client: Navajo Refining
Date: 7-6-10
Location: Lovington N.M.
Project:
P.O. #:

Drawing #: 111/112
Line #: 111-86-V-02-D-03
ISO #:
Equipment #:
Vessel #:
Design Press.:
Design Temp.:
Meter Type:
Type of Pressure Equipment: Fire Hydrant Head pressure
Dead Weights Type:
Pressure Gauge Cert./Date: 6-22-11

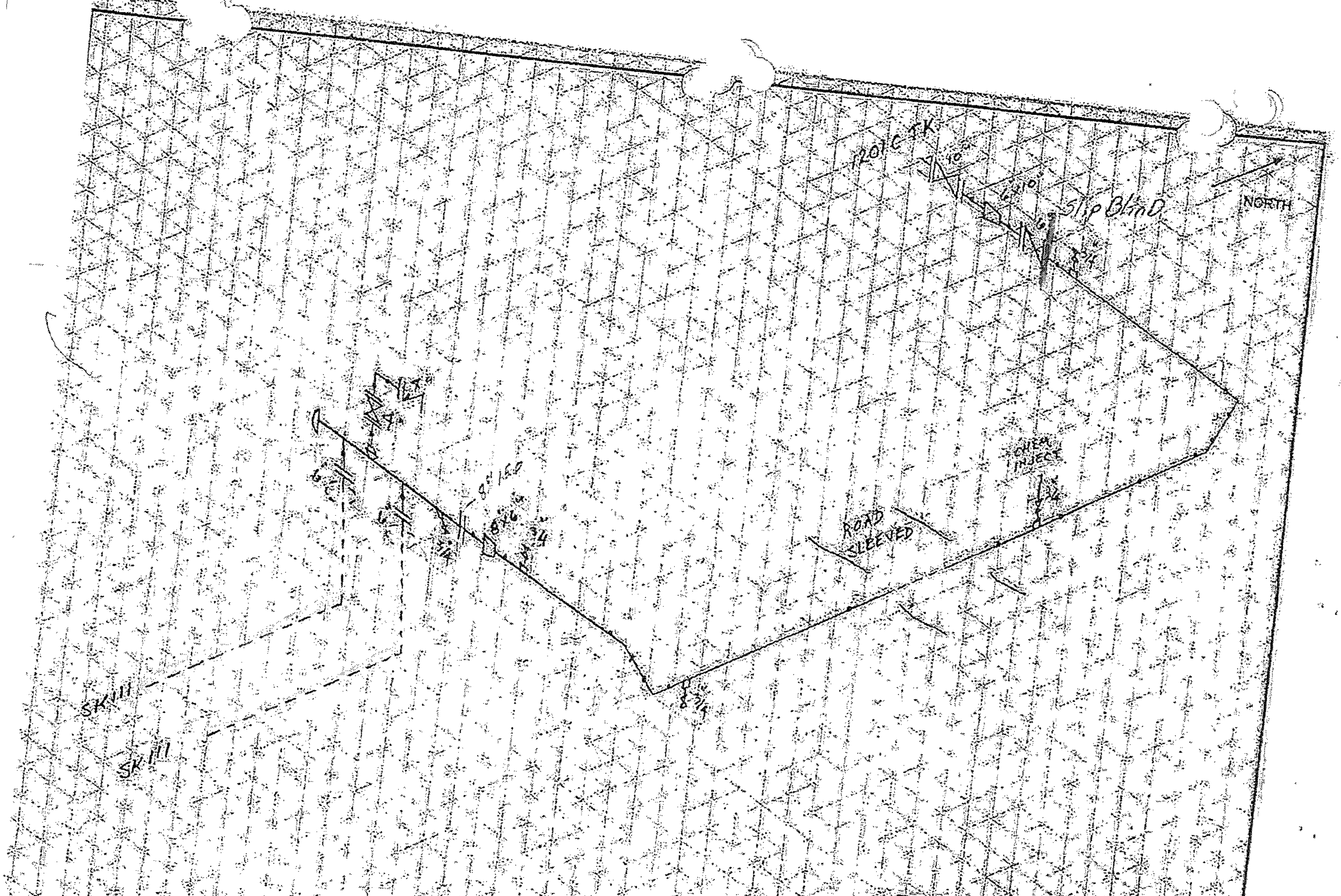
Test Date: 7-6-10
Test Time Start: 1:40 P.M.
Test Time End:
Test Medium: water
Pressure Min.: 30
Ambient Temp:
Pressure Max: 30
Actual Test Press.: 30
Actual Temp.:
Spec. Ref.:
Type of Substance: water
Pressure Gauge S.N.: 21583

Test Completed and Accepted By:		
R. Florez Welding Testing Rep.:	Date: 7-6-10	Remarks:
Client Rep.:	Date: 7-6-10	Remarks:
Operation Rep.:	Date: 7-6-10	Remarks:
Inspection Rep.:	Date:	Remarks:

Special Notes: Operating pressure at 20 PSI.
placed slip blinds in all valves



No. 1242 8½" x 11" 35°16' ISOMETRIC

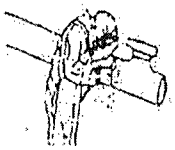


NAVAJO REFINING COMPANY
LOVINGTON, NEW MEXICO

REFERENCE	84-V-S-2-D-06
LINE NO.	
SERVICE	WASTE WATER A.P.I. TO 1201C TK
UNIT	84
SKETCH	1 of 2

No. 1242 81/2" x 11" 35°16' ISOMETRIC

Hydrostatic Test Data Sheet



R. Florez Welding
P.O. Box 5221(88221)
301 W.Wood Ave.
Carlsbad, NM 88220
Phone/Fax 505-885-6345

Client: NAVAJO Refining
Date: 6-25-10
Location: Lea
Project:
P.O. #:

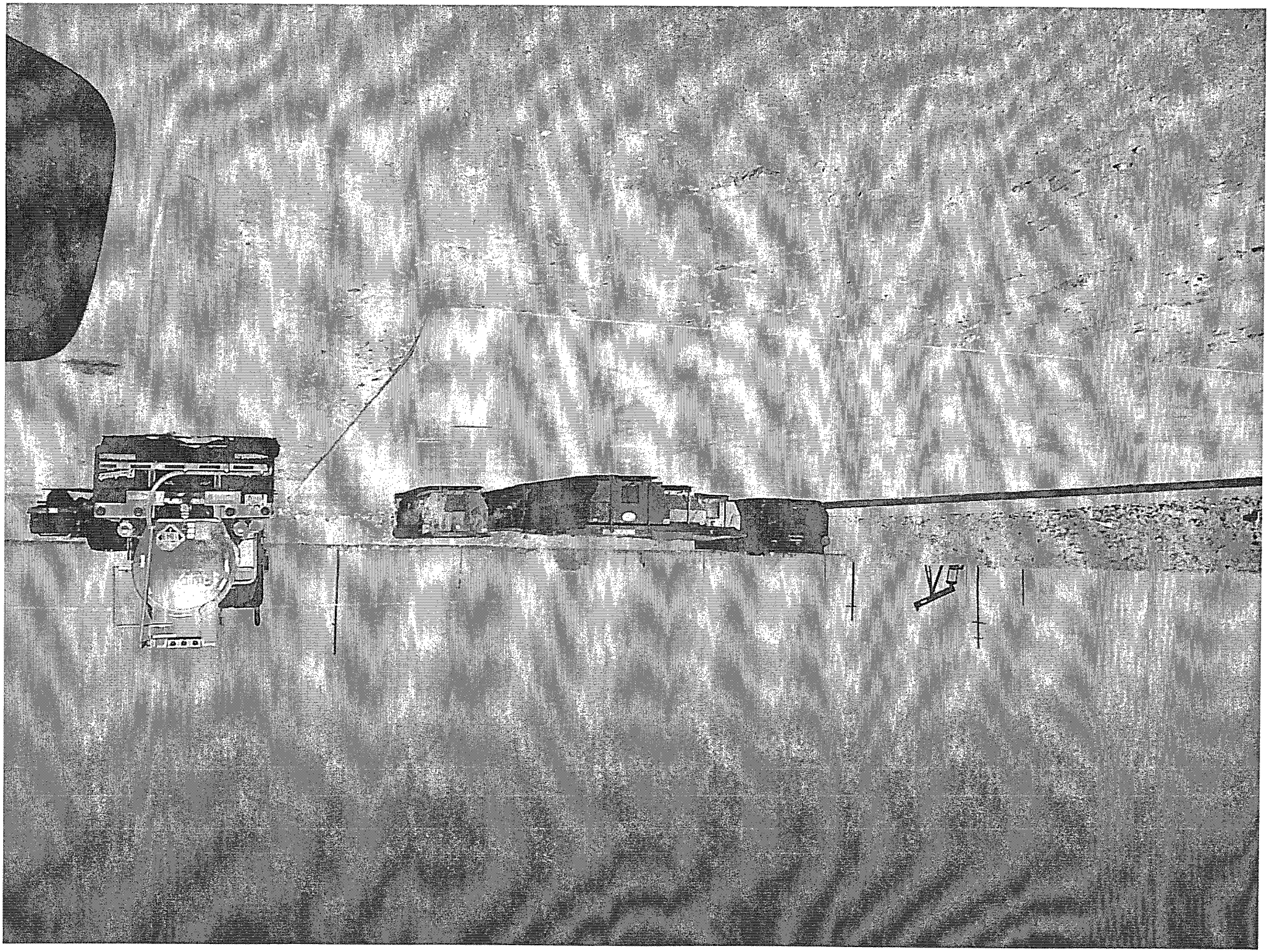
Drawing #: 113
Line #: WASTE WATER 1209B TK To 1201 D TK
ISO #:
Equipment #:
Vessel #:
Design Press.:
Design Temp.:
Meter Type:
Type of Pressure Equipment: Fire Hydrant Head pressure
Dead Weights Type:
Pressure Gauge Cert./Date: 21583 6/22/11

Test Date: 6-25-10
Test Time Start: 1:20 PM
Test Time End: 2:20 PM
Test Medium: WATER
Pressure Min.: 55
Ambient Temp:
Pressure Max: 55
Actual Test Press.: 55
Actual Temp.:
Spec. Ref.:
Type of Substance: WATER
Pressure Gauge S.N.:

Test Completed and Accepted By:		
R. Florez Welding Testing Rep.:	Date: 6/25/10	Remarks:
Client Rep.:	Date: 6-25-10	Remarks:
Operation Rep.:	Date: 6/25/2010	Remarks:
Inspection Rep.:	Date:	Remarks:

Special Notes: Operating press 35 Test press 55

86-V02-D-03 84-V52-D-06

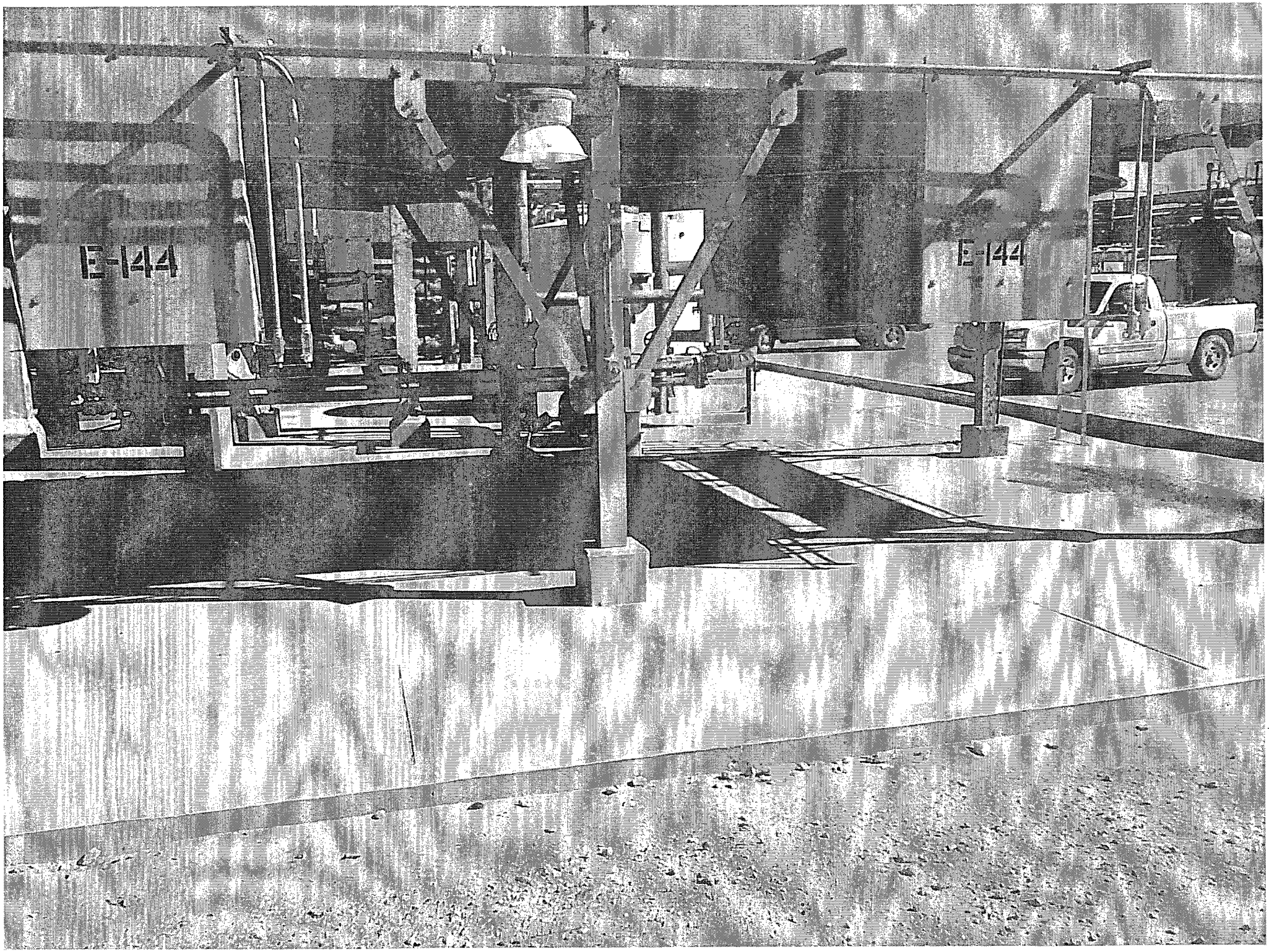


NAVAJO REFINING COMPANY
LOVINGTON REFINERY
SEWER TESTING

Note: Notify Darrell Moore so he can contact OCD's District Office and Santa Fe Office to witness testing (72 hrs notice required)

UNIT #	DWG #	LINE, BOX OR HUB #	TEST MEDIUM	TEST DATE	TEST METHOD	TESTED BY	TEST PASS/FAIL	COMMENTS / REPAIR METHOD
83	PLOT PLAN	PSB#01 TO LPS#8809	WATER	5/23/2005	HYDRO	RODRIGO, LIRA	PASS	
83	PLOT PLAN	PSB#01 TO PSB#02 TO LPS#8812 TO LML#8800	WATER	5/26/2005	HYDRO	RODRIGO, LIRA	PASS	
83	PLOT PLAN	LML#8800 TO LPS#8813	WATER	6/3/2005	HYDRO	CLEY MONTES	PASS	
83	PLOT PLAN	LML#8804 TO PSB#05	WATER	6/7/2005	HYDRO	CLEY MONTES	PASS	
83	**PLOT PLAN**	**LML#8800 TO LPS#8811 TO LPS#8810**	**WATER**	**6/9/2005**	**HYDRO**	**CLEY MONTES**	**FAIL**	
83	**PLOT PLAN**	**LML#8800 TO LPS#8811 TO LPS#8810**	**WATER**	**6/10/2005**	**HYDRO**	**CLEY MONTES**	**PASS**	**REPLACED ENTIRE LINE/RETEST**
83	PLOT PLAN	PSB#02	WATER	6/24/2005	HYDRO	CLEY MONTES	PASS	
83	PLOT PLAN	PSB#08 TO LML#8801 TO PSB #03	WATER	6/28/2005	HYDRO	CLEY MONTES	PASS	
83	PLOT PLAN	PSB#03 TO LML#8802	WATER	6/30/2005	HYDRO	CLEY MONTES	PASS	
83	PLOT PLAN	LPS#8815 TO PSB#05, 06, 07 TO LPS#8817 TO LPS#8816 TO PSB#08	WATER	7/3/2005	HYDRO	CLEY MONTES	PASS	
83	PLOT PLAN	PSB#03 TO LPS#8818 TO LPS#8819 TO PSB#09 TO PSB#10	WATER	7/8/2005	HYDRO	CLEY MONTES	PASS	
83	PLOT PLAN	LML#8802 TO PSB#04	WATER	7/11/2005	HYDRO	CLEY MONTES	PASS	
83	PLOT PLAN	PSB#04 TO LPS8820 TI OSB#11 TO LPS#8821 TO PSB#12	WATER	7/13/2005	HYDRO	CLEY MONTES	PASS	
83	PLOT PLAN	LPS#8822 TO LML#8803	WATER	7/15/2005	HYDRO	CLEY MONTES	PASS	
83	**PLOT PLAN**	**LML#8803 TO LPS#8823 TO LPS#8824 TO LPS#8825 TO LPS#8827 TO LPS#8826**	**WATER**	**7/19/2005**	**HYDRO**	**CLEY MONTES**	**FAIL**	
83	**PLOT PLAN**	**LML#8803 TO LPS#8823 TO LPS#8824 TO LPS#8825 TO LPS#8827 TO LPS#8826**	**WATER**	**8/2/2005**	**HYDRO**	**CLEY MONTES**	**PASS**	**MADE REPAIRS/RETEST**
83	PLOT PLAN	LML#8804 TO LPS#8828	WATER	8/8/2005	HYDRO	CLEY MONTES	PASS	
83	**PLOT PLAN**	**LML#8804 TO LPS#8829 TO LPS#8825 TO LPS#8830**	**WATER**	**8/11/2005**	**HYDRO**	**CLEY MONTES**	**FAIL**	
83	**PLOT PLAN**	**LML#8804 TO LPS#8829 TO LPS#8825 TO LPS#8830**	**WATER**	**8/20/2005**	**HYDRO**	**CLEY MONTES**	**PASS**	**MADE REPAIRS/RETEST**
83	**PLOT PLAN**	**LPS#8825 TO LPS#8831**	**WATER**	**8/21/2005**	**HYDRO**	**CLEY MONTES**	**FAIL**	
83	**PLOT PLAN**	**LPS#8825 TO LPS#8831**	**WATER**	**8/29/2005**	**HYDRO**	**CLEY MONTES**	**PASS**	**MADE REPAIRS/RETEST**
83	**PLOT PLAN**	**PSB#14 TO LPS#8833 TO LPS#8832 TO LPS#8834**	**WATER**	**10/15/2005**	**HYDRO**	**CLEY MONTES**	**FAIL**	
83	**PLOT PLAN**	**PSB#14 TO LPS#8833 TO LPS#8832 TO LPS#8834**	**WATER**	**10/19/2005**	**HYDRO**	**CLEY MONTES**	**PASS**	**MADE REPAIRS/RETEST**
83	PLOT PLAN	LML#8805 TO LPS#8838 TO LPS#8839 TO LPS#8840	WATER	10/20/2005	HYDRO	CLEY MONTES	PASS	
83	**PLOT PLAN**	**LML#8807 TO LPS#8791 TO LPS#8792**	**WATER**	**10/24/2005**	**HYDRO**	**CLEY MONTES**	**FAIL**	
83	**PLOT PLAN**	**LML#8807 TO LPS#8791 TO LPS#8792**	**WATER**	**10/30/2005**	**HYDRO**	**CLEY MONTES**	**PASS**	**MADE REPAIRS/RETEST**
83	PLOT PLAN	LML$8806 TO LPS#8843	WATER	11/10/2005	HYDRO	CLEY MONTES	PASS	
83	PLOT PLAN	LML#8806 TO LPS#8847	WATER	11/17/2005	HYDRO	CLEY MONTES	PASS	
83	PLOT PLAN	PSB#17 TO LPS#8848 TI KOS#8849	WATER	11/21/2005	HYDRO	CLEY MONTES	PASS	
83	**PLOT PLAN**	**LML#8807 TO LPS#8850 TO LPS#8790**	**WATER**	**11/28/2005**	**HYDRO**	**CLEY MONTES**	**FAIL**	
83	**PLOT PLAN**	**LML#8807 TO LPS#8850 TO LPS#8790**	**WATER**	**12/10/2005**	**HYDRO**	**CLEY MONTES**	**PASS**	**MADE REPAIRS/RETEST**
83	**PLOT PLAN**	**LML#8807 TO LPS#8993**	**WATER**	**12/14/2005**	**HYDRO**	**CLEY MONTES**	**FAIL**	
83	**PLOT PLAN**	**LML#8807 TO LPS#8993**	**WATER**	**12/20/2005**	**HYDRO**	**CLEY MONTES**	**PASS**	**MADE REPAIRS/RETEST**
83	PLOT PLAN	LPS#8839 TO LPS#8841	WATER	12/28/2005	HYDRO	CLEY MONTES	PASS	
83	PLOT PLAN	LML#8805 TO LPS#8838	WATER	1/6/2006	HYDRO	CLEY MONTES	PASS	
83	**PLOT PLAN**	**PSB#04 TO LML#8803 TO PSB#13 TO PSB#04 TO PSB#114 TO LML#8805 TO PSB#15**	**WATER**	**1/10/2006**	**HYDRO**	**CLEY MONTES**	**FAIL**	

83	PLOT PLAN	PSB#04 TO LML#8803 TO PSB#13 TO PSB#04 TO PSB#114 TO LML#8805 TO PSB#15	WATER	1/13/2006	HYDRO	CLEY MONTES	PASS	MADE REPAIRS/RETEST
83	PLOT PLAN	PSB#15 TO LML#8806 TO PSB#17	WATER	1/20/2006	HYDRO	CLEY MONTES	FAIL	
83	PLOT PLAN	PSB#15 TO LML#8806 TO PSB#17	WATER	2/2/2006	HYDRO	CLEY MONTES	PASS	MADE REPAIRS/RETEST
83	PLOT PLAN	PSB#17 TO LML#8807 TO PSB#19	WATER	4/26/2006	HYDRO	CLEY MONTES	FAIL	
83	PLOT PLAN	PSB#17 TO LML#8807 TO PSB#19	WATER	4/29/2006	HYDRO	CLEY MONTES	PASS	MADE REPAIRS/RETEST
83	PLOT PLAN	LML#8807 TO LPS8994	WATER	4/30/2006	HYDRO	CLEY MONTES	PASS	


E-144
E-144

Holly Print PO

Version	8.2
Date	07/20/2009 10:30
User	JON
Database Updated	Yes
Organization	NRC [Navajo Refining Company]
Purchase Order	81485 [INSTALL (3) SANITARY SEPTIC TANK SYSTEMS IN LOVINGTON]

Navajo Refining Company

Purchase Order 81485

Show this number on invoices, shipping documents, tags, boxes, etc.

Delivery Address	Invoice Address
NAVAJO REFINING COMPANY ATTENTION: MAIN WAREHOUSE 501 EAST MAIN STREET ARTESIA NM 88210	NAVAJO REFINING COMPANY ATTENTION: VENDOR PAYABLE GROUP PO BOX 1490 ARTESIA NM 88210

CUSTOM MOBILE CONCRETE LLC
PO BOX 1917
HOBBS NM 88241-1917
US

Telephone 575-433-1016
Fax No. 575-392-3008

Revision Number 1
All previous revisions are no longer valid.
Order Date 07/20/2009
Purchase Order Due Date 09/30/2009
Note: All tax calculations are estimates only for internal use.

Payment Terms
NET 30 DAYS

SEPTIC SYSTEMS IN LOVINGTON FOR BILL ROMINE PER PROPOSAL #3 DATED 06/21/09.

CONFIRMED TO ANNA WEST BY PHONE AT 575-433-1016 AND BY FAX AT 575-392-3008 ON 07/20/09.

Line	Task	Date Hours Requested	UOM	Est. Total Tax Quantity Rate	Total
10	SEPTIC TANK INSTALLATION **Activity/PO Line Comments:** INSTALL (3) SANITARY SEPTIC TANK SYSTEMS AT LOVINGTON REFINERY.	09/30/2009			47,997.6400

Services **Total** 47,997.6400

Jon Ross 20-Jul-2009
Approver

Total US Dollar 47,997.6400

APPROVED BY BHR
10/09/09
LINE 10

Custom Mobile Concrete, LLC

Invoice

PO Box 1917
Hobbs, NM 88241

"REC'D IN AP"
OCT 05 2009

Date	Invoice #
8/1/2009	4572-B

Bill To

Navajo Refining Company LLC
PO box 159
Artesia, NM 88211-0159

SCANNED
OCT 07 2009

P.O. No.	Terms
81485	Due on receipt

Description	Qty	Rate	Amount
NOT:2ND INVOICE THE FINAL PAYMENT IS DUE JOB IS COMPLETED			
Septic Tank System. (Comfort station). Install 1000gal system with 90' of leech line to accommodate total GPD of water use as approved by New Mexico Environment Department.		3,250.00	3,250.00T
Remove or dispose of old tank as approved by NMED.	5	71.50	357.50T
Daily Rock Charge hammer time.	3	400.00	1,200.00T
septic tank will be supplied with EPA approved effluent filter & risers with plastic lids.		243.50	243.50T
Barricade all work areas with OSHA approved cones & netting.		643.50	643.50T
Disconnect & plug all plumbing feeding old septic system.	5	45.00	225.00T
Pump old septic system before removal or crush & backfill.		105.00	105.00T
Portable toilet per week delivery included.		37.50	37.50T
Hobbs Sales Tax		6.6875%	0.00 405.40
Balance Due when Job is finished		**Total**	$6,467.40

APPROVED BY BHR
10/09/09
LINE 10

Custom Mobile Concrete, LLC

Invoice

PO Box 1917
Hobbs, NM 88241

"REC'D IN AP"
OCT 05 2009

Date	Invoice #
8/1/2009	4572-A

Bill To

Navajo Refining Company LLC
PO box 159
Artesia, NM 88211-0159

SCANNED
OCT 07 2009

P.O. No.	Terms
81495	Due on receipt

Description	Qty	Rate	Amount
NOTE: 2ND INVOICE THE FINAL PAYMENT IS DUE JOB IS COMPLETED			
Septic Tank System (PIPELINE OFFICE) Install 1000gal system with 90' of leech line to accommodate total GPD of water as approved by New Mexico Environment Deponent.		3,250.00	3,250.00T
Remove or dispose of old tank as approved by NMED.	5	71.50	357.50T
Daily Rock Charge hammer time	3	400.00	1,200.00T
Septic tank will supplied with EPA approved effluent filter & risers with plastic lids.		243.50	243.50T
Barricade all work areas with OSHA approved cones & netting		643.50	643.50T
Remove & replace pipe & chain containment around new system	16	45.00	720.00T
Pump old septic system before removal or crush & backfill.		105.00	105.00T
Portable toilet week includes delivery.		37.50	37.50T
Hobbs Sales Tax		6.6875%	438.50
All work is complete!		**Total**	$6,995.50

Custom Mobile Concrete, LLC

Invoice

SCANNED

PO Box 1917
Hobbs, NM 88241

Date	Invoice #
8/1/2009	4572-C

Bill To

Navajo Refining Company LLC
PO box 159
Artesia, NM 88211-0159

"RECD IN AP"

P.O. No.	Terms
81485	Due on receipt

Description	Qty	Rate	Amount
All exploratory digging to find yard lines to septic tank will be billed by hr.Also any digging around unknown pipes or buried lines.	6	71.50	429.00T
Daily Rock Charge hammer time.	3	400.00	1,200.00T
Barricade all work areas with OSHA approved cones & netting.		643.50	643.50T
Remove or dispose of gray water tank at north end of new system.	3	71.50	214.50T
All digging operations are billed with machine, operator & spotter included.		0.00	0.00T
Pump old septic tank before removal or crush in & backfill.		105.00	105.00T
Portable toilet per week includes delivery.		37.50	37.50T
Hobbs Sales Tax		6.6875%	660.42

BHR 2/16

All work is complete!	**Total**	$10,535.92

9875.50 less tax
BMD 2-16-10
line 10

CORRECTION ON TAX ON SECOND PAGE LD 8-07-09

Custom Mobile Concrete, LLC

Invoice

PO Box 1917
Hobbs, NM 88241

Date	Invoice #
6/21/2009	4569-A

Bill To

Navajo Refining Company LLC
PO box 159
Artesia, NM 88211-0159

"REC'D IN AP"
AUG 0 6 2009

SCANNED
AUG 0 6 2009

P.O. No.	Terms
81485	1/2 Down & 1...

Description	Qty	Rate	Amount
Septic Tank System (PIPELINE OFFICE) Install 1000gal system with 90' of leech line to accommodate total GPD of water as approved by New Mexico Environment Deponent.		6,500.00	6,500.00T
Remove or dispose of old tank as approved by NMED.	5	143.00	715.00T
Daily Rock Charge hammer time	3	800.00	2,400.00T
Septic tank will supplied with EPA approved effluent filter & risers with plastic lids.		487.00	487.00T
Barricade all work areas with OSHA approved cones & netting.		1,287.00	1,287.00T
Remove & replace pipe & chain containment around new system	16	90.00	1,440.00T
Pump old septic system before removal or crush & backfill.		210.00	210.00T
Portable toilet per week includes delivery.		75.00	75.00T
all jobs require half down to start & paid in full when job is finished			-6,995.50
Hobbs Sales Tax		6.6875%	877.00
BHR 8/4			
ThisTotal Due To to start the job		**Total**	$6,995.50

6,118.50 less tax
BHR 8/6/9
line 10

Custom Mobile Concrete, LLC

Invoice

PO Box 1917
Hobbs, NM 88241

Date	Invoice #
6/21/2009	4569-C

SCANNED
AUG 06 2009

Bill To

Navajo Refining Company LLC
PO box 159
Artesia, NM 88211-0159

"REC'D IN AP"
AUG 06 2009

P.O. No.	Terms
81485	1/2 Down & 1...

Description	Qty	Rate	Amount
all jobs require half down to start & paid in full when job is finished			-10,535.92
Hobbs Sales Tax		6.6875%	1,320.85
BHR 8/4			
ThisTotal Due To to start the job		**Total**	$10,535.93

9,215.08 less tax
BMB 8/5/9 line 10

Custom Mobile Concrete, LLC

PO Box 1917
Hobbs, NM 88241

Invoice

Date	Invoice #
6/21/2009	4589

Bill To

Navajo Refining Company LLC
PO box 159
Artesia, NM 88211-0159

Odd.

P.O. No.	Terms
81485	1/2 Down & 1...

Description	Qty	Rate	Amount
Septic Tank System. (Navajo Office/shop) Install 2000gal. tank system with 200' of leech line to accommodate total gpd of water use as approved by New Mexico Environment Dept.		8,400.00	8,400.00T
Cut & remove asphalt to install septic tanks and yard lines from office and shop.	8	90.00	720.00T
Remove & replace smoking station and pipe & chain containment.	16	90.00	1,440.00T
Septic tanks will be supplied with EPA approved effluent filters & risers with plastic lids. Concrete risers with cast iron lids are available at an additional cost.		487.00	487.00T
Remove or dispose of old septic system as approved by NMVD.	5	143.00	715.00T
Pour & finish concrete in all areas with asphalt removal.	12	90.00	1,080.00T
1" Rock Concrete Pour-5 sack cement	15	110.00	1,650.00T
All exploratory digging to find yard lines to septic tank will be billed by hr.Also any digging around unknown pipes or buried lines.	6	143.00	858.00T
Daily Rock Charge hammer time.	3	800.00	2,400.00T
Barricade all work areas with OSHA approved cones & netting.		1,287.00	1,287.00T
Remove or dispose of gray water tank at north end of new system.	3	143.00	429.00T
All digging operations are billed with machine, operator & spotter included.		0.00	0.00T
Pump old septic tank before removal or crush in & backfill.		210.00	210.00T
Portable toilet per week includes delivery.		75.00	75.00T
ThisTotal Due To to start the job		**Total**	

Custom Mobile Concrete, LLC

PO Box 1917
Hobbs, NM 88241

Invoice

Date	Invoice #
6/21/2009	4569-C

Bill To

Navajo Refining Company LLC
PO box 159
Artesia, NM 88211-0159

P.O. No.	Terms
81485	1/2 Down & 1...

Description	Qty	Rate	Amount
Septic Tank System. (Navajo Office/shop) Install 2000gal. tank system with 200' of leech line to accommodate total gpd of water use as approved by New Mexico Environment Dept.		4,200.00	4,200.00T
Cut & remove asphalt to install septic tanks and yard lines from office and shop.	8	45.00	360.00T
Remove & replace smoking station and pipe & chain containment.	16	45.00	720.00T
Septic tanks will be supplied with EPA approved effluent filters & risers with plastic lids. Concrete risers with cast iron lids are available at an additional cost.		243.50	243.50T
Remove or dispose of old septic system as approved by NMVD.	5	71.50	357.50T
Pour & finish concrete in all areas with asphalt removal.	12	45.00	540.00T
1" Rock Concrete Pour-5 sack cement	15	55.00	825.00T
All exploratory digging to find yard lines to septic tank will be billed by hr.Also any digging around unknown pipes or buried lines.	6	71.50	429.00T
ThisTotal Due To to start the job		Total	

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Invoice

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Hobbs, NM 88241

Date	Invoice #
6/21/2009	4569-C

Bill To

Navajo Refining Company LLC
PO box 159
Artesia, NM 88211-0159

P.O. No.	Terms
81485	1/2 Down & 1...

Description	Qty	Rate	Amount
Daily Rock Charge hammer time.	3	400.00	1,200.00T
Barricade all work areas with OSHA approved cones & netting.		643.50	643.50T
Remove or dispose of gray water tank at north end of new system	3	71.50	214.50T
All digging operations are billed with machine, operator & spotter included.		0.00	0.00T
Pump old septic tank before removal or crush in & backfill.		105.00	105.00T
Portable toilet per week includes delivery.		37.50	37.50T
NOTICE; THIS INVOICE IS ONLY SHOWING HALF OF THE PRICES, YOU WILL GET A 2ND INVOICE WHEN THE JOB IS COMPLETED		0.00	0.00T
Hobbs Sales Tax		6.6875%	660.42
ThisTotal Due To to start the job		**Total**	$10,535.92

9875.50

revised copy for tax correction next page
ld 8-07-09

Custom Mobile Concrete, LLC

Invoice

PO Box 1917
Hobbs, NM 88241

Date	Invoice #
6/21/2009	4569-B

Bill To

Navajo Refining Company LLC
PO box 159
Artesia, NM 88211-0159

"REC'D IN AP"
AUG 06 2009

SCANNED
AUG 06 2009

P.O. No.	Terms
81485	1/2 Down & 1...

Description	Qty	Rate	Amount
Septic Tank System. (Comfort station). Install 1000gal system with 90' of leech line to accommodate total GPD of water use as approved by New Mexico Environment Department.		6,500.00	6,500.00T
Remove or dispose of old tank as approved by NMED.	5	143.00	715.00T
Daily Rock Charge hammer time.	3	800.00	2,400.00T
Septic tank will be supplied with EPA approved effluent filter & risers with plastic lids.		487.00	487.00T
Barricade all work areas with OSHA approved cones & netting.		1,287.00	1,287.00T
Disconnect & plug all plumbing feeding old septic system.	5	90.00	450.00T
Pump old septic system before removal or crush & backfill.		210.00	210.00T
Portable toilet per week delivery included.		75.00	75.00T
all jobs require half down to start & paid in full when job is finished			-6,467.39
Hobbs Sales Tax		6.6875%	810.79
ThisTotal Due To to start the job		**Total**	$6,467.40

BHR 8/4

5656.61 less tax
BMB 8/5/09
line 10

Custom Mobile Concrete, LLC

Invoice

PO Box 1917
Hobbs, NM 88241

Date	Invoice #
6/21/2009	4569-B

Bill To

Navajo Refining Company LLC
PO box 159
Artesia, NM 88211-0159

P.O. No.	Terms
81485	1/2 Down & 1...

Description	Qty	Rate	Amount
Septic Tank System. (Comfort station). Install 1000gal system with 90' of leech line to accommodate total GPD of water use as approved by New Mexico Environment Department.		3,250.00	3,250.00T
Remove or dispose of old tank as approved by NMED.	5	71.50	357.50T
Daily Rock Charge hammer time.	3	400.00	1,200.00T
Septic tank will be supplied with EPA approved effluent filter & risers with plastic lids.		243.50	243.50T
Barricade all work areas with OSHA approved cones & netting.		643.50	643.50T
Disconnect & plug all plumbing feeding old septic system.	5	45.00	225.00T
Pump old septic system before removal or crush & backfill.		105.00	105.00T
Portable toilet per week delivery included.		37.50	37.50T
NOTICE; THIS INVOICE IS ONLY SHOWING HALF OF THE PRICES, YOU WILL GET A 2ND INVOICE WHEN THE JOB IS COMPLETED		0.00	0.00T
Hobbs Sales Tax		6.6875%	405.40
ThisTotal Due To to start the job		**Total**	$6,467.40

Custom Mobile Concrete, LLC

Invoice

PO Box 1917
Hobbs, NM 88241

Date	Invoice #
6/21/2009	4589

Bill To

Navajo Refining Company LLC
PO box 159
Artesia, NM 88211-0159

P.O. No.	Terms
81485	1/2 Down & 1...

Description	Qty	Rate	Amount
Septic Tank System. (Navajo Office/shop) Install 2000gal. tank system with 200' of leach line to accommodate total gpd of water use as approved by New Mexico Environment Dept.		8,400.00	8,400.00T
Cut & remove asphalt to install septic tanks and yard lines from office and shop.	8	90.00	720.00T
Remove & replace smoking station and pipe & chain containment.	16	90.00	1,440.00T
Septic tanks will be supplied with EPA approved effluent filters & risers with plastic lids. Concrete risers with cast iron lids are available at an additional cost.		487.00	487.00T
Remove or dispose of old septic system as approved by NMVD.	5	143.00	715.00T
Pour & finish concrete in all areas with asphalt removal.	12	90.00	1,080.00T
1" Rock Concrete Pour-5 sack cement	15	110.00	1,650.00T
All exploratory digging to find yard lines to septic tank will be billed by hr.Also any digging around unknown pipes or buried lines.	6	143.00	858.00T
Daily Rock Charge hammer time.	3	800.00	2,400.00T
Barricade all work areas with OSHA approved cones & netting.		1,287.00	1,287.00T
Remove or dispose of gray water tank at north end of new system.	3	143.00	429.00T
All digging operations are billed with machine, operator & spotter included.		0.00	0.00T
Pump old septic tank before removal or crush in & backfill.		210.00	210.00T
Portable toilet per week Includes delivery.		75.00	75.00T
ThisTotal Due To to start the job		**Total**	

Custom Mobile Concrete

P.O. Box 1917
Hobbs,N.M.88241-1917
Phone:(575)433-1016
Fax: (575)392-3008

To: Ken
Fax:
From: Bruce West
Date: June 30 2009
Re:
Pages: 02

PAGE 02

TRUECOLOR

5753923008

06/30/2009 15:08

APPLICATION FOR A LIQUID WASTE PERMIT OR REGISTRATION

Date NMED Received: _____ NMED Permit Number: _____

NMED Use Only:
Call _____ to schedule an inspection a minimum of 2 working days prior to the inspection. Permit Fee: _____
Permit Approved for (circle one): 1 2 3 4 5 6 Bedrooms Multiple dwellings Other:

SYSTEM OWNER'S NAME: Last, First, MI — Home Phone: — Business Phone:
CITY OF LOVINGTON
NAVAJO REFINING CO. LLC — 575-748-3311
MAILING ADDRESS: Street/PO Box, City, State, Zip Code
PO BOX 159 — ARTESIA — NM — 88211-0159
SYSTEM LOCATION: Address, City, ZIP, County - (if needed, attach directions)
7406 SOUTH MAIN LOVINGTON NM "10 PIPELINE OFFICE"
SUBDIVISION — UNIT/PHASE — BLOCK — LOT/TRACT

UNIFORM PROPERTY CODE:
TOWNSHIP RANGE SECTION QTR QTR QTR LATITUDE LONGITUDE ELEV

INSTALLER'S NAME & FIRM: — PHONE:
JIM JETER ABSW — 575-390-2116
MAILING ADDRESS: Street/PO Box, City, State, ZIP
PO Box 731 — HOBBS — NM — 88240
CID License No./Class: __ MM-1 X MM-98 __ MS-1 __ MS-3 __ Homeowner
No.:

I. PERMIT APPLICATION (instructions available on request)

Application is for: X New Permit ___ Registration - existing unpermitted system
___ Modification of an existing system ___ ATS ownership transfer
Existing Permit No.(if applicable): _____

II. WASTEWATER SOURCES & DESIGN FLOWS IN GALLONS PER DAY (gpd)

A. Proposed liquid waste system use and design flow:

__ Single family residence __ no. of bedrooms		____ gpd
__ Multiple family units __ no. of units; __ no. bedrooms per unit		____ gpd
__ Seasonal residence		
X Commercial-Institutional (type): _____		____ gpd
__ Other (type): _____ Fixture units: 14		218 gpd
B. Are there other sewage sources on this property? __ Yes X No		____ gpd
TOTAL WASTEWATER FLOW ON PROPERTY -		218 gpd

III. SITE INFORMATION

A. Lot Size: _____ Acres (nearest 0.01 acre) Date of Record: _____ (Plat Date or Subdivision Date)
Ownership and lot size documentation attached: __ Warranty deed __ Property tax receipt
__ Recorded survey __ Recorded plat __ Other, specify: _____

B. Depth from Ground Surface to:
Seasonal High Water Table 100 feet
Bedrock, Caliche, Tight Clay 1 feet
Gravel, Cobbles, Highly permeable soil ____ feet

C. Soil Description:
USDA Soil Class Methodology & Verification Submitted? __ Yes __ No
__ Type Ia=1.25 sf/gal/day X Type Ib=2 sf/gal/day __ Type II= 2 sf/gal/day
__ Type III=2 sf/gal/day __ Type IV=5 sf/gal/day

D. Domestic Water Source:
X On-site __ Off-site __ Private __ Public __ Shared
Irrigation well, or flood irrigated area on lot? __ Yes X No
State Engineer Well Permit #: N/A
Name of Public Water System: _____

IV. SYSTEM DESIGN

__ Experimental System

A. Treatment Unit:
__ Septic tank Manufacturer CUSTOM MOBILE CONCRETE Capacity 1000 GAL
Certification No: 98-05-140
__ ATS (Advanced Treatment System) __ Secondary __ Tertiary __ Sand filter
__ Disinfection __ Other (specify): _____
Manufacturer: _____ Model: _____
__ Voluntary ATS

B Disposal System: X Trench __ Leaching Bed __ Seepage Pit
__ Privy __ Holding tank __ Elevated Bed __ Wisconsin Mound
__ Vault __ Lined Evapotranspiration (ET) Bed __ Unlined ET Bed
__ Irrigation __ Low pressure dosed __ Drip __ Gray water
__ Other (specify): _____
Materials: X Pipe & Gravel __ Gravelless (type): _____
Distribution box: __ Yes __ No

C. Minimum required absorption area:
AR 2 x Q 218 = 436 SQ FT
(AR - Application Rate) (Q - Design Flow)
Trench or Bed width = 2 ft.
Gravel depth below pipe = 3 ft.
Total Trench or Bed Length = 163'
Length of Trenches =(1) ____ ; (2) ____ ; (3) ____ ; (4) ____
Number of Gravelless Units = _____
Proposed Absorption Area of System = 436 SQFT

D. Depth from ground surface to bottom of absorption area = 6 ft.

Revised 9-05

Custom Mobile Concrete
(505) 433-1016
Mobile 318-1016
401 W. Marland Blvd. • Hobbs

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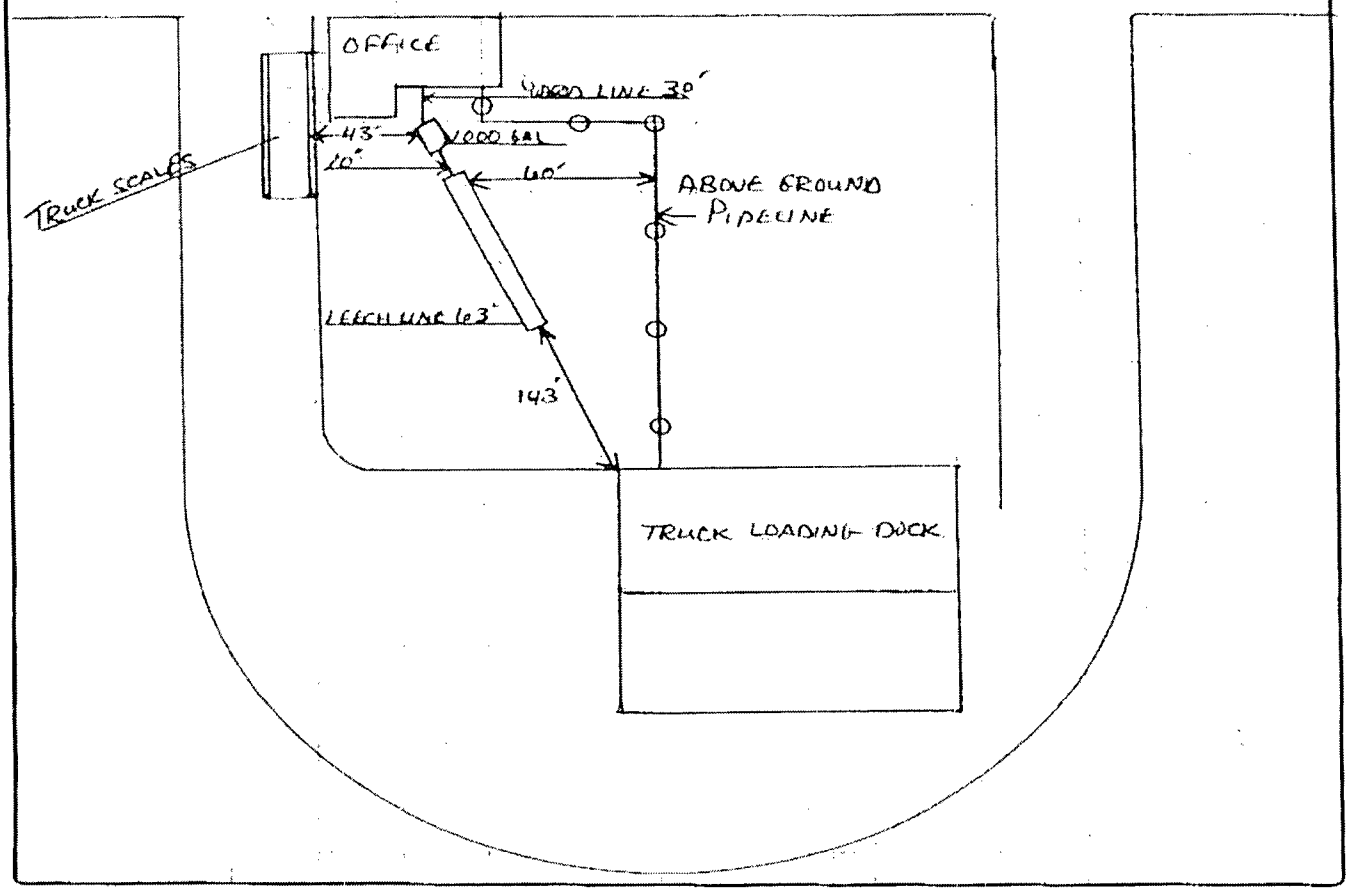
Offering The Latest In Concrete Technology
• Concrete Homes • Decorative Finishes • Stamping & Staining
Imprinted Concrete For Patios / Driveways / Walkways
Colors Available

PIPELINE OFFICE



Custom Mobile Concrete

P.O. Box 1917
Hobbs,N.M.88241-1917
Phone:(575)433-1016
Fax: (575)392-3008

To: Ken
Fax:
From: Bruce West
Date: June 30 2009
Re:
Pages: 2

2nd FAX

APPLICATION FOR A LIQUID WASTE PERMIT OR REGISTRATION

Date NMED Received: _____ NMED Permit Number: _____

NMED Use Only:
Call _____ to schedule an inspection a minimum of 2 working days prior to the inspection. Permit Fee: _____
Permit Approved for (circle one): 1 2 3 4 5 6 Bedrooms Multiple dwellings Other: _____

SYSTEM OWNER'S NAME: Last, First, MI — Home Phone: — Business Phone:
CITY OF LOVINGTON
NAVAJO REFINING CO. LLC — 575-748-3311
MAILING ADDRESS: Street/PO Box, City, State, Zip Code
PO Box 159 — ARTESIA, NM 88211-0159
SYSTEM LOCATION: Address, City, ZIP, County - (if needed, attach directions)
7406 South Main Lovington NM "COMFORT STATION"
SUBDIVISION — UNIT/PHASE — BLOCK — LOT/TRACT

UNIFORM PROPERTY CODE:
TOWNSHIP RANGE SECTION QTR QTR QTR LATITUDE LONGITUDE ELEV

INSTALLER'S NAME & FIRM: — PHONE:
Jim Jeter ABSW — 575-390-2116
MAILING ADDRESS: Street/PO Box, City, State, ZIP
PO Box 731 — Hobbs, NM 88240
CID License No./Class: 34282 — __ MM-1 X MM-98 __ MS-1 __ MS-3 __ Homeowner

I. PERMIT APPLICATION (instructions available on request)

Application is for: X New Permit ___ Registration - existing unpermitted system
___ Modification of an existing system ___ ATS ownership transfer
Existing Permit No.(if applicable): _____

II. WASTEWATER SOURCES & DESIGN FLOWS IN GALLONS PER DAY (gpd)

A. Proposed liquid waste system use and design flow:
__ Single family residence __ no. of bedrooms _____ gpd
__ Multiple family units __ no. of units: __ no. bedrooms per unit _____ gpd
__ Seasonal residence
X Commercial/Institutional (type): _____ 300 gpd
__ Other (type): _____ Fixture units: ___ ___ _____ gpd
B. Are there other sewage sources on this property? __ Yes X No _____ gpd
TOTAL WASTEWATER FLOW ON PROPERTY - 300 gpd

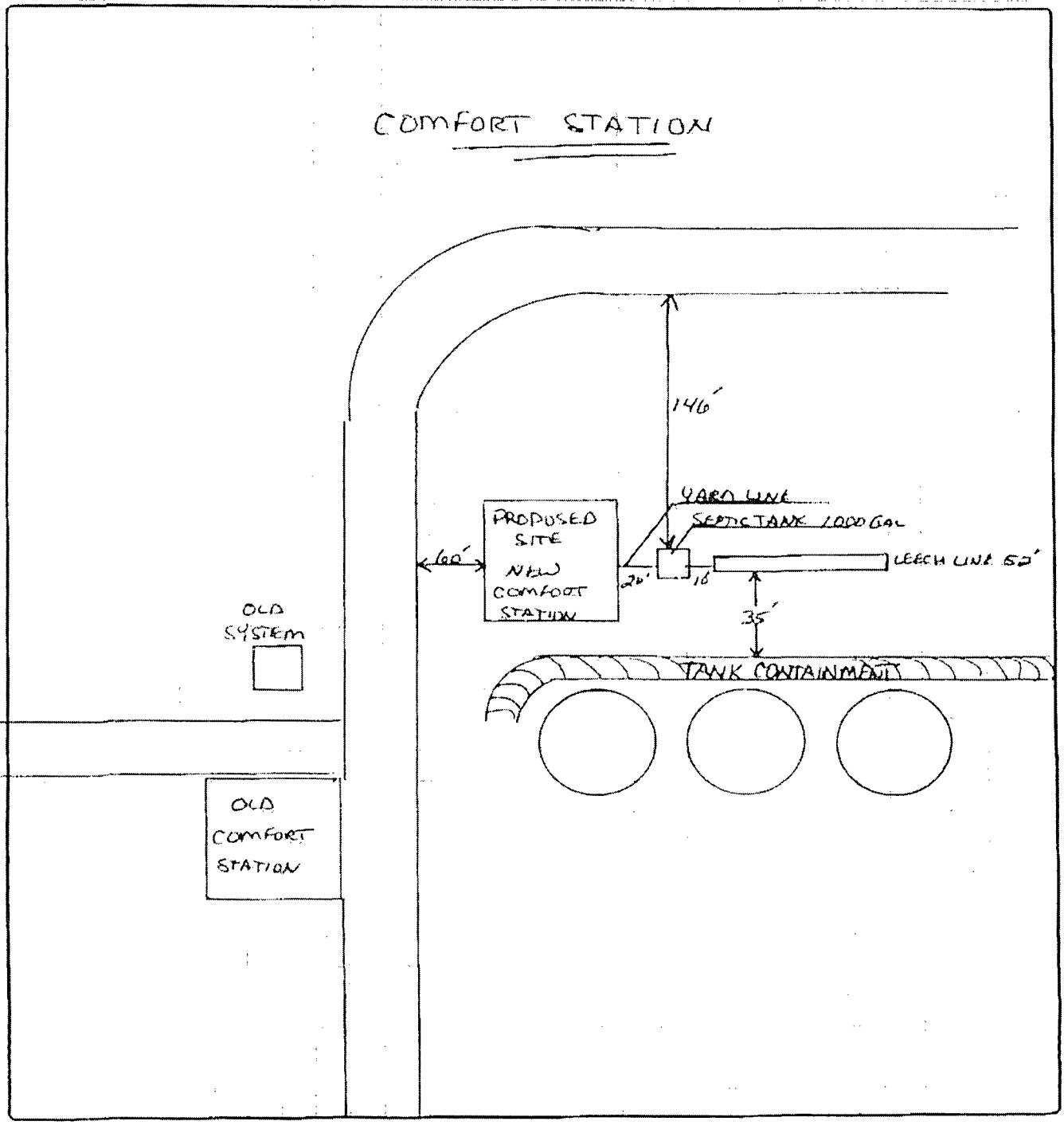
III. SITE INFORMATION

A. Lot Size: _____ Acres (nearest 0.01 acre) Date of Record: _____ (Plat Date or Subdivision Date)
Ownership and lot size documentation attached: __ Warranty deed __ Property tax receipt
__ Recorded survey __ Recorded plat __ Other, specify: _____

B. Depth from Ground Surface to:
Seasonal High Water Table 100 feet
Bedrock, Caliche, Tight Clay 1 feet
Gravel, Cobbles, Highly permeable soil _____ feet
C. Soil Description:
USDA Soil Class Methodology & Verification Submitted? __ Yes __ No
__ Type Ia=1.25 sf/gal/day X Type Ib=2 sf/gal/day __ Type II= 2 sf/gal/day
__ Type III=2 sf/gal/day __ Type IV=5 sf/gal/day
D. Domestic Water Source:
X On-site __ Off-site __ Private __ Public __ Shared
Irrigation well, or flood irrigated area on lot? __ Yes X No
State Engineer Well Permit #: N/A
Name of Public Water System: _____

IV. SYSTEM DESIGN

__ Experimental System
A. Treatment Unit:
__ Septic tank Manufacturer CUSTOM MOBILE CONCRETE Capacity 1000 gal
Certification No: 98-05-140
__ ATS (Advanced Treatment System) __ Secondary __ Tertiary __ Sand filter
__ Disinfection __ Other (specify): _____
Manufacturer: _____ Model: _____
__ Voluntary ATS
B. Disposal System: X Trench __ Leaching Bed __ Seepage Pit
__ Privy __ Holding tank __ Elevated Bed __ Wisconsin Mound
__ Vault __ Lined Evapotranspiration (ET) Bed __ Unlined ET Bed
__ Irrigation __ Low pressure dosed __ Drip __ Gray water
__ Other (specify): _____
Materials: X Pipe & Gravel __ Gravelless (type): _____
Distribution box: __ Yes __ No
C. Minimum required absorption area: 180 360
AR 2 x Q 180 = 360 SQ FT
(AR - Application Rate) (Q - Design Flow)
Trench or Bed width = 2 ft.
Gravel depth below pipe = 3 ft.
Total Trench or Bed Length = 180 52'
Length of Trenches =(1) _____ ; (2) _____ ; (3) _____ ; (4) _____
Number of Gravelless Units = _____
Proposed Absorption Area of System = 360 SQFT
D. Depth from ground surface to bottom of absorption area = 6 ft.



Custom Mobile Concrete

P.O. Box 1917
Hobbs,N.M.88241-1917
Phone:(575)433-1016
Fax: (575)392-3008

To: Ken
Fax:
From: Bruce West
Date: June 30 2009
Re:
Pages: 2

~~2nd FAX~~

3Rd FAX

APPLICATION FOR A LIQUID WASTE PERMIT OR REGISTRATION

Date NMED Received: _____ NMED Permit Number: _____

NMED Use Only:
Call _____ to schedule an inspection a minimum of 2 working days prior to the inspection. Permit Fee: _____
Permit Approved for (circle one): 1 2 3 4 5 6 Bedrooms Multiple dwellings Other:

SYSTEM OWNER'S NAME: Last, First, MI — Home Phone: — Business Phone:
CITY OF LOVINGTON
NAVAJO REFINING CO. LLC — 575-748-3311
MAILING ADDRESS: Street/PO Box — City — State — Zip Code
PO Box 159 — ARTESIA — NM — 88211-0159
SYSTEM LOCATION: Address, City, ZIP, County - (if needed, attach directions)
7406 SOUTH MAIN LOVINGTON NM OFFICE/SHOP
SUBDIVISION — UNIT/PHASE — BLOCK — LOT/TRACT

UNIFORM PROPERTY CODE:
TOWNSHIP RANGE SECTION QTR QTR QTR LATITUDE LONGITUDE ELEV

INSTALLER'S NAME & FIRM: — PHONE:
JIM JETER ABSW — 575-390-2116
MAILING ADDRESS: Street/PO Box — City — State — ZIP
PO Box 731 — HOBBS — NM — 88240
CID License No./Class ___ MM-1 X MM-98 ___ MS-1 ___ MS-3 ___ Homeowner
No.:

I. PERMIT APPLICATION (instructions available on request)

Application is for: X New Permit ___ Registration - existing unpermitted system
___ Modification of an existing system ___ ATS ownership transfer
Existing Permit No.(if applicable): _____

II. WASTEWATER SOURCES & DESIGN FLOWS IN GALLONS PER DAY (gpd)

A. Proposed liquid waste system use and design flow:

___ Single family residence ___ no. of bedrooms		___ gpd
___ Multiple family units ___ no. of units; ___ no. bedrooms per unit		___ gpd
___ Seasonal residence		
X Commercial/Institutional (type): FACTORY	700	gpd
___ Other (type): ___ Fixture units: ___		___ gpd
B. Are there other sewage sources on this property? ___ Yes X No		___ gpd
TOTAL WASTEWATER FLOW ON PROPERTY -	700	gpd

III. SITE INFORMATION

A. Lot Size: _____ Acres (nearest 0.01 acre) Date of Record: _____ (Plat Date or Subdivision Date)
Ownership and lot size documentation attached: ___ Warranty deed ___ Property tax receipt
___ Recorded survey ___ Recorded plat ___ Other, specify: _____

B. Depth from Ground Surface to:
Seasonal High Water Table 400 feet
Bedrock, Caliche, Tight Clay / feet
Gravel, Cobbles, Highly permeable soil _____ feet

C. Soil Description:
USDA Soil Class Methodology & Verification Submitted? ___ Yes ___ No
___ Type Ia=1.25 sf/gal/day X Type Ib=2 sf/gal/day ___ Type II= 2 sf/gal/day
___ Type III=2 sf/gal/day ___ Type IV=5 sf/gal/day

D. Domestic Water Source:
X On-site ___ Off-site ___ Private ___ Public ___ Shared
Irrigation well, or flood irrigated area on lot? ___ Yes X No
State Engineer Well Permit #: N/A
Name of Public Water System: /

IV. SYSTEM DESIGN ___ Experimental System

A. Treatment Unit: TWO
___ Septic tank Manufacturer: CUSTOM MADE CONCRETE Capacity: 1000 GAL TANKS
Certification No.: 98-05-140
___ ATS (Advanced Treatment System) ___ Secondary ___ Tertiary ___ Sand filter
___ Disinfection ___ Other (specify): _____
Manufacturer: _____ Model: _____
___ Voluntary ATS

B. Disposal System: X Trench ___ Leaching Bed ___ Seepage Pit
___ Privy ___ Holding tank ___ Elevated Bed ___ Wisconsin Mound
___ Vault ___ Lined Evapotranspiration (ET) Bed ___ Unlined ET Bed
___ Irrigation ___ Low pressure dosed ___ Drip ___ Gray water
___ Other (specify): _____
Materials: X Pipe & Gravel ___ Gravelless (type): _____
Distribution box: X Yes ___ No

C. Minimum required absorption area:
AR 200 x Q 2 = 1400 SQ FT
(AR - Application Rate) (Q - Design Flow)
Trench or Bed width = 2 ft.
Gravel depth below pipe = 3 ft.
Total Trench or Bed Length = 200'
Length of Trenches = (1) 68' (2) 132' (3) _____ (4) _____
Number of Gravelless Units = _____
Proposed Absorption Area of System = 1400 SQFT

D. Depth from ground surface to bottom of absorption area = 6 ft.

Revised 9/98

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(505) 433-1016
Mobile 318-1016
401 W. Marland Blvd. • Hobbs

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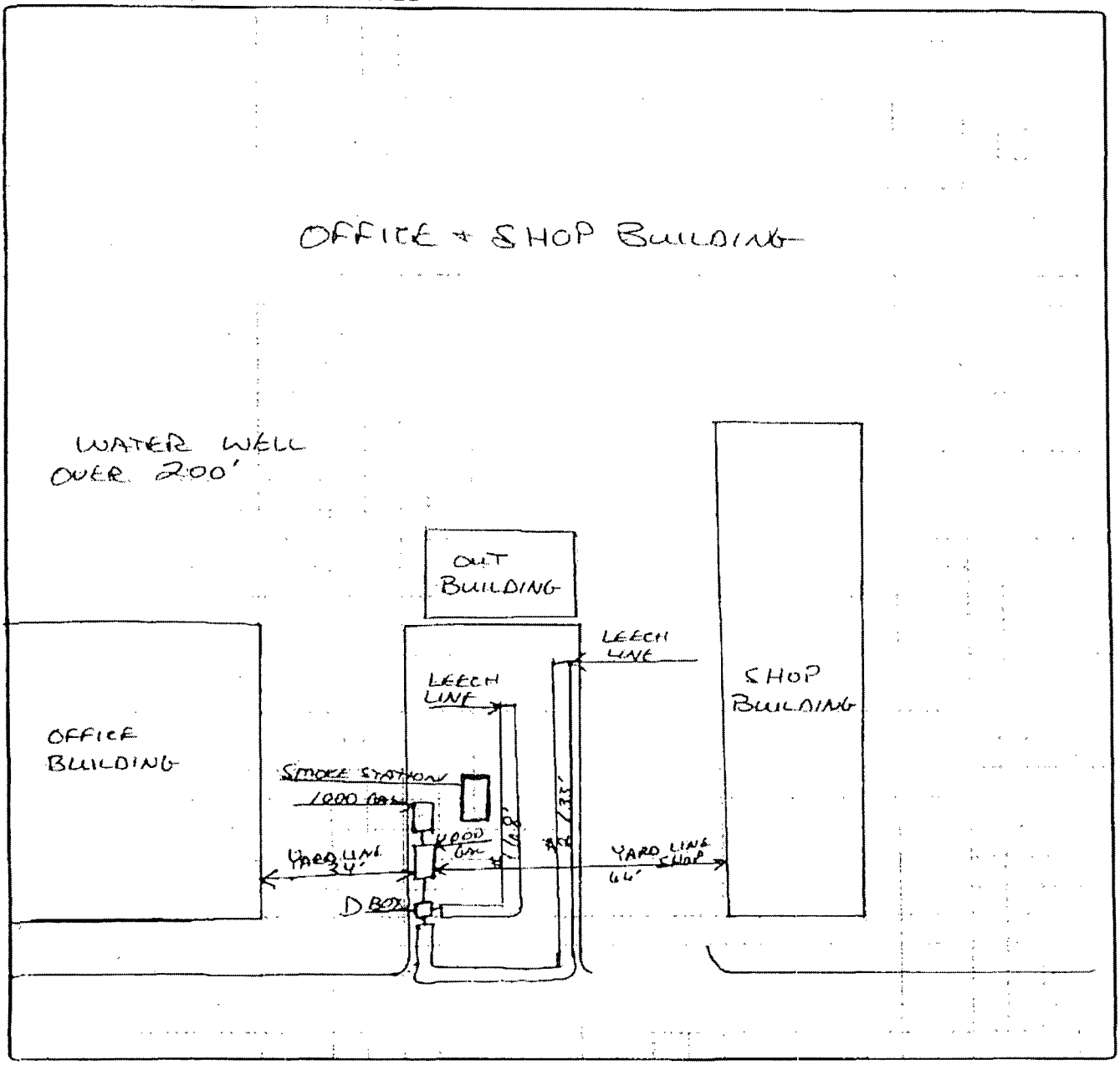
• Concrete Homes • Decorative Finishes • Stamping & Staining
Imprinted Concrete For Patios / Driveways / Walkways
Colors Available



Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, October 29, 2010 8:33 AM
To: 'Moore, Darrell'; Lackey, Johnny
Cc: 'Michael Leighton'; VonGonten, Glenn, EMNRD
Subject: Final Investigation Report Due 11/15 & Facility-Wide Ground Water Monitoring Plan Request Lovington Refinery (GW-014)

Darrell and Johnny:

Good morning. From our October 6, 2010 meeting Santa Fe where we discussed the preliminary investigation report and findings, I am writing to suggest that similar to the Artesia Refinery, that Navajo Refining Company (NRC) consider development of a Facility-Wide Ground Water Monitoring Plan (FWGWMP) as a supplement to the report due on 11/15. If NRC agrees, you can propose the best date for the annual review and revision to it based on new monitoring needs, etc. I think this would be more efficient than developing a table in the discharge permit that may require frequent modification.

Please let me know what you think about this by next Friday, November 5, 2010? 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/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Tuesday, October 12, 2010 10:41 AM
To: 'Moore, Darrell'; 'Lackey, Johnny'
Cc: 'Miguel De La Cruz'; Dade, Randy, EMNRD; VonGonten, Glenn, EMNRD
Subject: Lovington Refinery Meeting Minutes & Follow-up Items
Attachments: Communication Meeting 10-6-10.doc

Darrell and Johnny:

Good morning. Please find attached the meeting minutes from our October 6, 2010 meeting in Santa Fe.

The OCD has highlighted sections where it has requested information by date specified and if not specified, the OCD request that a response be received by COB November 5, 2010.

Thanks for your cooperation and the opportunity to jointly review the discharge permit and communicate on refinery issues. The OCD will attempt to a lot more time for future meetings to allow for complete discussion of issues raised during the meeting. The NMOGA Representative participation in the meeting was a surprise and OCD requests that the operator consider adding agenda items for any guest that it may decide to bring to the meetings.

Please contact me if you have questions. 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/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

Navajo Lovington Refinery Meeting (GW-014)
Santa Fe, OCD (Oct. 6, 2010)
10:00 a.m. – Noon

Navajo Refinery Discharge Agenda Items:

Attendees: Carl Chavez (OCD), Glenn von Gonten (OCD), Miguel De La Cruz (City of Lovington), Johnny Lackey (NRC), Darrell Moore (NRC), and Debra Seligman (NMOGA Representative)

Agenda Items

10:00 a.m. Refinery brief update on discharge permit related activities with ID of any issues- Johnny Lackey, et al.

Recent fire at the treater (Naphtha Tube) on 10/3 was extinguished quickly within fire box without incident and a C-141 will be sent to OCD soon.

The operator installed new hazardous waste storage area at the facility that was not required under the discharge permit. Since this area could be used to temporarily store oilfield products, etc, please provide location and photo(s) of this storage area.

Installed cement containment areas approved by the OCD to control releases from areas where spills would most likely be expected. Provide OCD with map of location and photos.

10:15 a.m. Environmental Investigation & Monitor Report Discussion- Johnny Lackey, et al.

Brought Interim Report to show agencies and the final report will be submitted to the agencies by November 15, 2010 and include: boring logs with field analyses and descriptions, cross-sections, etc.

Typos discovered in report were:

1) *Figure 3 as "MW-9" should be "MW-29";*
2) *Figure 4 typo in contour line;*
3) *Figure 7 typo in contour line; and*
4) *Figure 8 typo in contour line.*

Operator did not sample at the water table at boring locations as required. Sampled at 10 ft. increments from 10 ft. bgl to the water table w/ 2 ft. split spoon samples collected at those depths. No free-product was evident in the unsaturated zone. The water table was at about 110 ft. bgl. Table 3: MWs 7 and 8 show some hydrocarbons are down deep, but not at free-product levels. OCD will determine whether the existing monitor well network will address this issue in the final report due November 15, 2010.

MW-23 high [TDS] and where is it coming from? LA-10 SWD Well shut-in and well belongs to Chevron. Don't know where elevated [Cl] coming from at South water wells, MWs 19 and 20? At MW-19 water table is at 20 ft. bgl with high [Cl].

There are 2 water wells (8 in. Dia.) pumping at about 8500 to 9000 bbl/day. The South water well is currently out of service with a pump problem? The piezometric surface map depicts one large cone of depression around the 2 wells and OCD requested that the survey table and surveyors report in attached to the final report for verification.

City of Lovington is concerned about the rising [TDS] at the refinery and meeting the POTW NPDES Limit of 1000 ppm. The refinery is the only discharger to the POTW. An estimated 46,000 gpd of refinery effluent is routed to the POTW. The City thinks it may be more or could be as much as 200,000 gpd. This is about 25 to 30% of the total flow through POTW. The operator indicated that they have a meter, but weren't sure how often they recorded flow rates from it. The city inspectors may be able to monitor it daily and 2 x week. Some discussion of how the operator could reduce its [TDS], i.e., filtering. OCD recommended that a special meeting between the operator and the city is needed to figure out what to do. BOD is also of some concern.

David Boyer's interim report conclusion is that there is no point source of contamination impacting ground water beneath the facility. Also, requirement for operator to research well logs for city wells should be dropped. Why should operator be responsible for researching nearby wells when the City could do this or it is their responsibility?

From: Moore, Darrell [mailto:Darrell.Moore@hollycorp.com]
Sent: Tuesday, August 10, 2010 8:22 AM
To: Chavez, Carl J, EMNRD
Cc: Michael Leighton; Lackey, Johnny
Subject: Lovington Discharge Plan

Carl

1. All 15 of the new monitor wells were installed by ~~June 15, 2010~~ April 12, 2009.

2 Drilling of 15 additional boreholes to a depth of 105-110 ft. as required by OCD were completed on June 28. There were 4 borings drilled in the vicinity of the crude manifold area and 11 drilled in the area of the wastewater separator. The final soil analytical reports for these borings were received July 20.

3. Development of the new monitor wells occurred beginning July 6 and was completed the following week.

4. A professional surveyor located wells and surveyed elevations the week of July 12 and provided the results the week of July 19.

5. Our deep well purge pump was sent to the shop the week of July 19 for repairs. After two weeks of testing and no diagnosis as to what the problem is, we rented one which arrived August 6, 2010. We will begin the semi-annual sampling of the 29 monitor wells and 3 water wells this week (midweek). I expect it will take at least until Monday or Tuesday of the following week to complete the sampling. Sample results should be received around the end of the month.

6. Remaining hydrologic field work includes an aquifer test which will most likely be conducted at the end of the month. *August 30, 2010*

Based on all the remaining work, including preparation of maps, tables of results of soil analytical testing, water levels and water quality results, boring and well logs, and aquifer test analysis, we should have a prepared report by September 30 for submittal to OCD and the City of Lovington.

The soil analytical results, with just a few exceptions in the area of the wastewater separator, show no contamination of subsurface material from surface to groundwater. No hydrocarbon product or hydrocarbon odor was observed in any of the new monitor wells. And even in the area of the wastewater separator no oil-saturated soil was found. The entire facility is very clean and I expect the groundwater sampling to show confirm that with the possible of exception of known benzene in MW-11 and chlorides from non-refinery sources in a couple of monitor wells. There is nothing new and no "smoking gun" in anything found to date.

If anyone from OCD or the City would like to witness the sampling this week (starting tomorrow Wednesday) you are more than welcome.

10:45 a.m. Discharge Permit Review- Carl Chavez & Miguel De La Cruz

Status of sanitary effluent: Installed recent septic systems under NMED permit at facility. Provide OCD with documentation that work was completed with tank specs and materials used, etc.

Section 8 & 17(iv): Installed OCD approved cement secondary containment areas at facility. Provide OCD with photos of locations with area of cement installed.

Section 9: Tanks are not required to be Praxair tested until December 2013; however, the operator is considering testing all tanks at Lovington Refinery the next time the method is brought to the Artesia Refinery; however, Tanks at the Artesia Refinery will continue to be tested 20% per year.

Section 11A: No below-grade tanks. Several sumps were removed or decommissioned with OCD approval, but they were small and served no control purpose, etc.

Section 11 B: Two of three of the retention and detention ponds were lined. OCD needs some photos with a summary description with any diagrams of the design, materials used and final construction "As Built."

Section 13A: The submittal of all underground process/waste water lines documentation, since the permit was issued is requested.

Section 14 & 17(iii): Septic system upgrade status and proof of permit application from NMED for control room septic system installed 6 or 9/2009 is requested. According to Operator, this information has already been provided, but OCD could not locate. OCD does not have a record of this in its files. Please submit proof of permit application with NMED.

11:00 a.m. 5 Minute Break

11:05 a.m. Discharge Permit Review Continued- same as above

Section 16: Reminded operator about final C-141s and need for photos, analytical verification of soil remediation, etc. submittals. Operator said it understood. Randy Dade will be inspecting the effluent line locations where the 3 releases occurred near UIC Class I (NH) Disposal Wells and will make determinations based on the inspection and meeting with the refinery and assess the request to forego the HST of the line this year until after the new line is installed next year. OCD reminded the operator that it needs to review the work plan for the effluent line for approval. It appears operator constructed a temporary line across the Pecos River and the OCD is not sure whether appropriate permits, etc. were obtained for the work?

Section 17i: Map was provided, but not retention or detention ponds are illustrated. The operator claims that these ponds don't exist at the facility to the berm that was constructed around the facility and prevents any discharges off-property. OCD does not dispute this operator determination based on the most recent NMED storm water inspection of the facility and facility history.

OCD requests that the map be updated for the final report to include: new tanks, secondary containment areas, hazardous waste storage area, and centralized chemical storage area(s).

Section 17(vii): Annual GW Monitor Report should include new MWs from 17(vi) and 20. Note that listed Section 16(v) is a typo in the permit. A "Recommendations" section in the AR is requested to ensure follow-up of any issues identified.

Section 24: The financial assurance (FA) deadline of 9/30/2009 was missed. OCD verified that the FA was for facility decommissioning and 30 year post ground water monitoring period. OCD requires that similar to the Lovington Refinery, the operator shall submit an FA estimate to the OCD by December 31, 2010 for OCD review and a

determination of final bond amount to satisfy this section of the permit. A bond submittal shall be submitted within 1 month of the OCD final assessed amount.

11:30 a.m. Operator and Agency Issues

OCD observed from environmental investigation that operator did not sample at the water table where soil borings were drilled down to the water table. However, based on the monitor well locations, and monitoring, the agencies should verify the conclusions of the consultant in the report.

The operator is awaiting a response on whether the hydrostatic test on the effluent line to the UIC Class I (NH) Disposal Wells can be postponed until next year after the new effluent line is installed.

The report was not completed completely, and an extension to November 15, 2010 was allowed to allow the operator to fulfill the requirements (i.e., pump test, cross-sections, boring logs, etc.) of the discharge permit with complete information.

OCD inspector will visit the location of the 3 releases on the effluent line and make a final determination on whether the line should be hydro-tested this year.

Operator questioned fire reporting, but this was discussed at the time of the last permit renewal; consequently, OCD did not discuss it during the meeting.

NMOGA Representative was curious about the regulations that give OCD jurisdiction over sanitary effluent treatment at an oil and gas facility. There was also a question about the OCD rule for discharge permits under WQCC. The OCD was unable to respond during the meeting due to the agenda items and time frame for completion of the meeting. The NMOGA Representative was asked to send e-mail inquiries to the OCD for response.

NMOGA Representative was curious about regulations that give OCD discharge permit authority. Representative sent OCD an e-mail inquiry for response.

11:45 a.m. Artesia Refinery (GW-028) Communication

This discussion section is documented under the GW-028 discharge permit at OCD Online recently created "Meetings" thumbnail.

11:55 a.m. Miscellaneous & Path forward

OCD inquired about two potential spill locations from a recent Google Earth GIS view of the facility near Tank 1214 and southeast of MW-2. OCD Requests that the operator inspect these areas to verify that spills/releases exist or are not present in the field. The operator should respond to this item within 4 weeks of the meeting date or by COB on November 5, 2010.

Noon	Lunchtime and end of meeting

Chavez, Carl J, EMNRD

Subject:	Navajo Refinery Discharge Permit Meeting (GW-014)
Location:	OCD Office (Wendell Chino Building) 1220 Sout St. Francis Dr., Santa Fe, NM 87505
Start:	Wed 10/6/2010 10:00 AM
End:	Wed 10/6/2010 12:00 PM
Recurrence:	(none)
Meeting Status:	Meeting organizer
Organizer:	Chavez, Carl J, EMNRD
Required Attendees:	Lackey, Johnny; Moore, Darrell; Michael Leighton; VonGonten, Glenn, EMNRD; Hill, Larry, EMNRD; 'Miguel De La Cruz'

Agenda Items

10:00 a.m. Refinery brief update on discharge permit related activities with ID of any issues- Johnny Lackey, et al.

10:15 a.m. Environmental Investigation & Monitor Report Discussion- Johnny Lackey, et al.

10:45 a.m. Discharge Permit Review- Carl Chavez & Michael Leighton

11:00 a.m. 5 Minute Break

11:05 a.m. Discharge Permit Review Continued- same as above

11:30 a.m. Operator and Agency Issues

11:45 a.m. Artesia Refinery (GW-028) Communication

11:55 a.m. Miscellaneous & Path forward

Noon Lunchtime

From: Moore, Darrell [mailto:Darrell.Moore@hollycorp.com]
Sent: Tuesday, August 10, 2010 8:22 AM
To: Chavez, Carl J, EMNRD
Cc: Michael Leighton; Lackey, Johnny
Subject: Lovington Discharge Plan

Carl

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2 Drilling of 15 additional boreholes to a depth of 105-110 ft. as required by OCD was completed on June 28. There were 4 borings drilled in the vicinity of the crude manifold area and 11 drilled in the area of the wastewater separator. The final soil analytical reports for these borings were received July 20.

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Based on all the remaining work, including preparation of maps, tables of results of soil analytical testing, water levels and water quality results, boring and well logs, and aquifer test analysis, we should have a prepared report by September 30 for submittal to OCD and the City of Lovington.

The soil analytical results, with just a few exceptions in the area of the wastewater separator, show no contamination of subsurface material from surface to groundwater. No hydrocarbon product or hydrocarbon odor was observed in any of the new monitor wells. And even in the area of the wastewater separator no oil-saturated soil was found. The entire facility is very clean and I expect the groundwater sampling to show confirm that with the possible of exception of known benzene in MW-11 and chlorides from non-refinery sources in a couple of monitor wells. There is nothing new and no "smoking gun" in anything found to date.

If anyone from OCD or the City would like to witness the sampling this week (starting tomorrow Wednesday) you are more than welcome.

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

Navajo Refining Company meeting
Santa Fe 10/6/2010

10 — Noon

Name	Title	ph	Email
Carl Chavez	Engineering Specialist	505 476-3490	Carl.J.Chavez@state.nm.us
Miguel De La Cruz	Utilities Director	505-704-9173	mdelacruz@lovingto
Johnny Lackey	ENV. Mgr.	575-746-5490	johnny.lackey@hollycorp
DAVID BOYER	Hydrogeologist	575-397-0510	dj boyer@
DEBORAH SEIGHMAN	VP, NMOGA	505-660-4241	Seighman@nmoga.
Darrell Moore	Env. Mgr. for Water & Waste	575-746-5281	darrell.moore@hollycorp.com
GLENN VON GONTEN	OCD	476-3488	

Chavez, Carl J, EMNRD

Subject:	Navajo Refining Company- Lovington Refinery (GW-014) Discharge Permit & Communication Meeting
Location:	OCD Conference Room 3rd Floor: Wendell Chino Bldg. 1220 South St. Francis Dr., Santa Fe 87505
Start:	Thu 10/8/2009 1:30 PM
End:	Thu 10/8/2009 5:00 PM
Recurrence:	(none)
Meeting Status:	Meeting organizer
Organizer:	Chavez, Carl J, EMNRD
Required Attendees:	VonGonten, Glenn, EMNRD; Chavez, Carl J, EMNRD; mleighton@lovington-nm.org; Patrick B. McMahon; Moore, Darrell; Lackey, Johnny; Powell, Richard, NMENV
Optional Attendees:	Terry, Steve; kurtporter@valornet.com

Gentlemen:

Please find below the final agenda for next Thursday's Discharge Permit and Communication Meeting in Santa Fe.

AGENDA

Discharge Permit (GW-014)

Note: A projector w/ OCD Laptop Computer Microsoft Compatible (save power point presentation on USB drive in 1993-97 Format just in case). Computer will be website accessible, but only from an OCD computer plugged into the DSL drive in case you want to place and access your presentation online.

Main Basis for Meeting: Section 21. A. Environmental Status Report or Presentation (Due: 10/12/2009) Note: Presentation by refinery representative(s) on the contaminant hydrogeology issues in this section.

1:30 **Introductions**

1:40 **Section 9. Above Ground Tanks:** The owner/operator shall retrofit all existing tanks before discharge permit renewal or within a proposed schedule approved by the OCD within 3 months of permit issuance (April 12, 2009). The owner/operator shall submit a spreadsheet or table identifying all tanks with a work schedule to address this provision (Tank ID#, type of tank, new/used, volume, chemical stored, tank age, last integrity test date, planned retrofit date and/or construction date, etc.) to the OCD for approval..... A work schedule with a phased approach extending beyond the standard 5-year permit period may be approved by the OCD if submitted within 3 months of permit issuance (April 12, 2009). The table(s) will be considered approved if the OCD does not respond to a submittal within 30 days of receipt.

1:50 **Section 11. Below-Grade Tanks/Sumps and Pits/Ponds:**

A. **Below-Grade Tanks & Sumps:** The owner/operator shall retrofit all existing systems without secondary containment and leak detection before discharge permit renewal or within a schedule proposed in a spreadsheet or table approved by the OCD within 3 months of permit issuance (April 12, 2009). The table(s) will be considered approved if the OCD does not respond to a submittal within 30 days of receipt.

B. **Pits and Ponds:** The owner/operator shall retrofit all existing systems without secondary containment and leak detection before discharge permit renewal or within a schedule submitted to the OCD and approved within 3 months of permit issuance (April 12, 2009). A spreadsheet or table of all pits and ponds with schedule for completion shall be included in the submittal and OCD shall approve or deny this submittal within 30 days or receipt. The table(s) and work schedule(s) shall be considered approved if the OCD does not respond within 30 days of receipt.

2:00 **Section 13. Underground Process/Wastewater Lines:**

A. The owner/operator shall provide a comprehensive spreadsheet/table listing of all underground process/wastewater pipelines within 3 months of permit issuance (April 12, 2009) to establish the basis for compliance with this provision. Have MITs to date been successful?

2:10 **Section 14. Class V Wells:** Class V wells shall be permitted by the NMED if sanitary wastewater is injected into a leach field without processing, treatment or disposal within an OCD treatment system at the facility. Status?

2:20 **Section 16. Spill Reporting:** The owner/operator shall notify the City of Lovington immediately of any discharge, leak, spill or release that poses an imminent threat to the City's fresh water supply to allow the City to take corrective action(s) to prevent contamination from entering the freshwater gathering system. Status?

2:30 **Section 17. OCD Inspections:**

i. The owner/operator shall submit an updated site map(s) showing the current status of all recovery wells, monitor wells, domestic wells (City of Lovington water supply, irrigation wells, and pertinent features (i.e., new refinery units, remediation systems, new tanks, expansions, effluent pipelines(s), centralized chemical storage location, oil and gas transmission lines within and proximal to the property and ground water contamination, including storm water basins (detention ponds) if present) before June 30, 2009.

ii. The owner/operator shall construct a second impermeable pad area at a centralize chemical storage area, which will serve to separate incompatible chemicals by March 31, 2009. A drawing(s) shall be submitted that illustrates a new centralized chemical storage location in advance of construction activities.

iii. The owner/operator shall provide proof of permit application, and correspondence with the NMED GWQB for septic system(s) before June 30, 2009. The septic system(s) shall be installed by September 30, 2009. Class V wells that inject domestic waste that is not treated at the refinery must be permitted by the NMED (see Section 14).

iv. Have all spills or releases of chemicals been cleaned up? Will discuss C-141s later in Section 21A presentation.....

vi. The owner/operator shall install MWs with 15 foot screens across the water table down gradient of all releases where contaminated soils/sediments are not fully excavated and associated with C-141 reporting (See Attachment 2). Has this been done? Will discuss C-141s later in Section 21A presentation.....

vii. New MWs constructed and monitored (See Sections 16v. and 20) shall be installed within 3 months of permit issuance (April 12, 2009). Additional downgradient MWs are required at locations down gradient from suspected refinery point source areas (See Attachment 2 C-141 Forms) especially the 10/25/2007 pipeline release discovery) and upgradient from any City of Lovington drinking water supply well in order to safeguard the municipal water supply system. PSH shall be reassessed and PSH wells shall be installed within 6 months of permit issuance (July 12, 2009) where product thickness is at or greater than 0.5 ft.. Recovery wells may be required anywhere GW contamination is detected upgradient from a water supply well. The annual monitoring report shall contain a conclusions section with recommendations for any additional corrective actions including additional MW locations. Based on the contaminant hydrogeology from environmental sampling and in the annual report (See Section 20). Has the above been done? Will discuss C-141s later in Section 21A presentation.....

viii. Major releases including fires, explosions, etc. Have any occurred?

x. The owner/operator shall maintain all refinery records including this discharge permit at the facility and readily available during inspections, site activities, etc. All records shall be made available to OCD inspectors upon request (See Section 21C).

3:00 **Section 18. Storm Water:** The owner/operator shall implement and maintain run-on and run-off plans and controls. The owner/operator shall separate or isolate chemical contact from non-contact storm water drainage areas at the plant. The owner/operator shall not discharge any water contaminant that exceeds the WQCC standards specified including any oil sheen in any non-contact storm water run-off drainage area. Have any releases occurred of this type since the permit was issued? NMED is planning to conduct a storm water inspection this year and will evaluate proper controls and possibly the recent request by the refinery to remove sumps (controls) from the facility. Refinery supposed to present a diagrams of sumps with any controls that exist to address adequate controls for releases to non-contact areas of the refinery property....

3:15 ***TEN MINUTE BREAK**********BREAK**********BREAK**********BREAK**********

3:25 **Section 20. Surface Water/ Ground Water/ Vadose Zone Monitoring/Remediation/Abatement:**

A. **GW & Treatment System Montoring:** The owner/operator shall sample, analyze and report GW contamination to the City of Lovington and OCD in accordance with applicable federal, state, and local laws or ordinances. Were the MWs listed in Table 20A sampled and analyzed? Any PSHs? Quick observations or defer to presentation on Section 21A later.....

B. **GW & Treatment System Annual Monitoring Event:** Annual report shall be submitted to the OCD by April 15th of each year. Submittal on 4/15/09, but letter indicated MWs were still in process of being deepened. A status report is due on 10/12/2009 and will make available by then. Will this report or presentation on 21A later address the items in 20B? Defer to presentation on Section 21A presentation later.....

3:30 **Section 22. Annual Summary Report:** This report is due by April 15th of each year? Did the operator address the report contents of this section in its April 15, 2009 submittal? OCD is thinking the presentation today and the Environmental Status Report contains all of the information requested in the discharge permit related to the GW & Treatment System Annual Monitoring Report (Section 20B) Annual Summary Report (Section 22), since there were minimum requirements for diagrams, contaminant hydrogeologic information, etc. required for the Environmental Status Report and information was not available at the time the Operator submitted the Annual Report attempting to address annual report items on 4/15/2009? Hopefully the Environmental Status Report and presentation today address the concerns of the permit and the agencies will need to evaluate the submittal to see if we are indeed now up to date on annual reporting and the objective of the environmental status report and presentation today.... The Environmental Status Report and presentation was not due until 10/12/09.....

F. Summary of discovery of any new vadose zone and/or GW contamination or threat to the City of Lovington Well Head Protection Area. This should include recommendations with a schedule for any further investigation, monitoring and remediation.

G. Summary and copies of all City of Lovington and OCD activity, i.e., meetings (this meeting and future ones....), inspections, etc. Note OCD is currently under travel restrictions due to budget issues, but the City can conduct inspections under this permit at any time, and if so, the OCD would like to be copied on inspections, meetings, communiqués between the City and Operator in order for communications sake. I'm sure operator likes to be addressed in a single correspondence from the agencies rather than the agencies sending communiqués separately and if the OCD does not know what the City is up to and vise versa, a communication problem occurs, confusion, and we head down different paths..... Agreement on this? I think of us as a team communicating with one another in order to achieve our objectives..... The operator benefits by a clean run operation without spills, releases, etc. that cost a lot of time and money to address when we can help prevent pollution and conserve resources.....

3:45 **Section 24. Closure & Financial Assurance (20.6.2.3107A(11) NMAC):** The owner/operator shall submit a closure plan and financial assurance cost estimate for post cleanup monitoring by September 30, 2009. Operator recently requested an extension until November 30, 2009 to submit a closure plan with a total cost estimate that the OCD evaluate to determine a bond or financial assurance amount requirement from the operator. Today's presentation will assist the operator and environmental consultants with the total cost estimate. Discussion.....

4:00 **21. Additional Site Specific Conditions: PRESENTATION UPDATE ON CONTAMINANT HYDROGEOLOGY- Refinery Rep(s).**

A. **Environmental Status Report:** Presentation by refinery representatives at the end of discharge permit item discussion later.....

B. **New Full-Time Automated Free-Product Recovery System:** PSH Recovery Wells were to be installed within 6 months of permit issuance (July 12, 2009) if product thickness is greater than 0.5 ft.

C. **Records:** The owner/operator shall store all discharge permit related records and documents at the refinery and make them available to the agencies (City of Lovington and OCD) upon request. Has this been done? I could not access records during my inspections in the past.....

4:45 **City of Lovington Discussion of any concerns, etc.**

4:50 **Refinery issues, concerns, etc.**

- 5:00 **Miscellaneous Issues**

The Agencies involved with this facility are:

City of Lovington Contacts:

Michael Leighton (City Manager)
City of Lovington
(505) 396-2884
mleighton@lovington-nm.org

Patrick B. McMahon
HEIDEL, SAMBERSON, NEWELL, COX & McMAHON
311 North First Street
Lovington, New Mexico 88260
Office: (575) 396-5303
Facsimile: (575) 396-5305
hsncpbm@leaco.net

Oil Conservation Division:

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Department
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
(Pollution Prevention Guidance is under "Publications")

Report of June 2009 Semi-Annual Groundwater Monitoring

Navajo Refining Company, Lea Refinery
Lovington, New Mexico

October 8, 2009

Prepared for:

Navajo Refining Company
501 East Main Street
Artesia, New Mexico 88210

By:

Safety & Environmental Solutions, Inc.
703 E. Clinton
Hobbs, New Mexico 88240
(575) 397-0510

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I. Introduction

The Navajo Refining Company, Lea Refinery in Lovington, New Mexico operates under a Groundwater Discharge Plan (GW-014) issued by the New Mexico Oil Conservation Division (OCD). The location of the refinery is shown in Figure 1. The discharge plan addresses water and fluid discharges to the subsurface; spills and leaks to the ground surface; pits, ponds and below grade tanks and sumps; waste handling and other activities that have the potential to contaminate groundwater or adversely impact public health and the environment.

Safety and Environmental Solutions, Inc. (SESI) performs groundwater monitoring, sampling, and product recovery (when necessary) at the Lea Refinery. The work performed at the refinery includes semi-annual measurement of water and product levels, sampling of monitor wells for water quality in accordance with the requirements of the New Mexico Oil Conservation Division (OCD), and, when in use, maintenance of the hydrocarbon product recovery system installed at the facility. This report documents the results of sampling conducted at the site during June 2009. The report also includes information on the replacement of the original monitoring wells, lack of hydrocarbon product detected and possible reasons for such. A site plan for the facility is shown in Figure 2.

II. Background Information

In September 1995 and April 1996 monitor wells were installed at the refinery to determine groundwater conditions and to document impacts to groundwater from activities at the refinery. Originally ten (10) monitor wells were installed with all but one located in the vicinity of the refinery process area. Later four (4) additional wells were installed in areas where spills or overtopping of tanks were reported. Those incidents were reported to the OCD and follow up investigation conducted including soil sampling and auger borings. Where there was concern that groundwater may have been impacted, additional groundwater wells were drilled.

Water levels in the vicinity of the refinery are declining due to withdrawal of water for refinery use from wells on the property and from City of Lovington water wells surrounding the refinery to the southwest, west, northwest and to the northeast on the east side of NM Highway 18. The water levels declines for two of the original wells are shown on Figure 3. The average yearly water level decline through 2004-05 for monitor wells in the refinery process area was about 1.2 feet per year. That increased during the time period 2005-2008 to 1.3-1.4 feet per year. However, measurements of the replacement wells from April to September 2009 show a possible loss of up to 2.4 feet per year. Further, MW-1, MW-6, MW-7 and RW-1 experienced a 0.5 foot decline during the two month period July to September 2009 which would result in a 2.9 foot per year decline if it continues over the coming year.

Because of the accelerated decline in water levels, the monitor wells were generally completed with a saturated water thickness of 22 to 24 feet which would allow use for approximately 20 years at an average decline of 2 feet per year.

III. Monitor Well Replacement

At the direction of the OCD as a condition of groundwater discharge plan renewal, all monitor wells that were dry or nearly so were to be replaced. Accordingly beginning on April 2, 2009 the existing wells were plugged and replacement drilling began. The existing dry monitor wells (MW-1 to MW-4, MW-7 to MW-10) were plugged along with MW-5 and MW-6 which had minimum water saturation. Monitor wells MW-11 through MW-14 were not replaced as they still have sufficient water for sampling (Table 1). Recovery well RW-1 had approximately 0.6 feet of hydrocarbon product and about 2-3 feet of water at the time of abandonment. Prior to becoming dry, MW-1 and MW-7 also contained product. Due to the original completion details, the wells were unable to be pulled. They were abandoned by emplacing bentonite downhole and well hydrating it. The concreted surface pad was removed and the casing cut off below the surface.

All replacement wells were drilled using a mud rotary system with mud and cuttings contained within a plastic lined roll-off bin. The water in the roll-off bin was vacuumed and sent to the refinery wastewater system for treatment and cuttings were transported to OCD-licensed CRI for disposal. Cuttings taken from area of the wastewater separator showed evidence of oil (dark grey to black, frothy, hydrocarbon sheen). Otherwise cuttings were clean at other locations.

The four wells near the wastewater separator (MW-1, MW-6, MW-7 and RW-1) were drilled and completed with large diameter 5-inch casing to enable recovery pumps to be installed if necessary. Drilling of the replacement recovery well (RW-1) occurred on April 14. During the replacement drilling, black hydrocarbon sand and oil were seen beginning at 5 feet with thick oil at 20 feet. Oil was seen in various amounts while drilling. As these three wells were designed to recover hydrocarbon product they were completed with small diameter gravel so as to allow product to drain and be recovered rather than slowly seep into the groundwater over time as with the three original wells.

Because the water table had declined over 10 feet during the last eight years, the wells were completed with extra screen so that they would not become dry and need to be replaced again for at least 20 years. The other two replacement wells (MW-1 and MW-7) were drilled on April 15 and 16, respectively. MW-6 was replaced earlier on April 13.

The three wells replacing those which had previously contained product were developed on June 16 by pumping with a standard submersible pump until sand and mud were removed and the water was not brown with turbidity. Water and solids were again pumped into roll-off bin and handled as above. Approximately 250 gallons of water was pumped from each well. Other than some gray sand at the beginning of pumping, the cuttings and water was clean with little evidence of oil or a hydrocarbon sheen. The

replacement for MW-6, which had never contained hydrocarbon product, was developed with an air-driven bailer to remove fines.

Due to the use of mud, subsurface lithology was difficult to determine. But from earlier work done at the site the top 20 feet is well cemented very light brown caliche grading to fine to very fine grained sand with zones of sandstone of varying cementation. Zones of unconsolidated flowing sand in the vadose zone required the use of an agent (mud) to keep the hole open while drilling.

Replacement boreholes were completed with 2-inch casing except for replacement wells MW-1, MW-6, MW-7 and RW-1 which were completed with 5-inch casing as described above. The 2-inch wells were completed with pre-packed screen due to the difficulty of emplacing graded sand at depth. The 2-inch wells and MW-6 were developed with an air-driven bailer to remove sand and fines.

Surface completion consisted of hydrated bentonite from above the sand/gravel pack to within approximately 2 feet of the surface and then a cement pad. The replacement wells were completed at grade except for MW-5 near the south refinery entrance and MW-8 within the bermed area containing storage tanks. These were completed above grade with steel protection casing. The wells not replaced (MW-11 through MW-14) are all completed above grade with steel protection casing.

In August 2009 the new and existing monitor wells and the refinery water wells were surveyed by Asel Surveying of Hobbs. Elevations of the monitor wells were measured to one-hundredth of a foot.

IV. Groundwater Measurement and Sampling

The following activities were conducted to measure groundwater levels and document the groundwater quality conditions in accordance with OCD Groundwater Discharge Plan. The locations of the referenced wells are shown on Figure 2.

- Measured depth to groundwater in monitoring wells MW-1 through MW-14.
- Measured free product thickness in monitoring wells RW-1, MW-1 and MW-7. No free product or even a hydrocarbon sheen was noted.
- Collected semi-annual groundwater samples from all monitor wells plus RW-1.
- Collected groundwater samples from the refinery's North, South and East water wells.

Groundwater measurement and sampling activities were conducted during the period June 16-19, 2009. Prior to sampling, the monitoring wells at the Lea Refinery were gauged for depth to groundwater and total depth using a Solinst Model 101 water level meter. Monitor wells where phase-separated hydrocarbons may have been present were measured using an oil/water interface probe (Solinst Model 122).

Immediately prior to collecting groundwater samples, the monitoring wells were purged of a minimum of three well casing volumes of water using a Proactive model SS-Monsoon stainless steel pump and new, dedicated vinyl tubing. The pump was decontaminated with Alconox detergent and clean water between samples. Groundwater parameters of conductivity, temperature and pH were measured during purging operations.

Samples taken for benzene, toluene, ethylbenzene, and total xylene (BTEX) analyses were transferred into air-tight, septum-sealed, 40-milliliter (ml) glass volatile organic analyte (VOA) sample vials with zero head space and preserved with HCl. Samples were placed in an ice-filled cooler immediately after collection and shipped to ALS Laboratory Group in Houston, Texas. The samples were analyzed for BTEX using EPA Method SW8260. Chain of custody (COC) forms documenting sample identification numbers, collection times, and delivery times to the laboratory were completed for each set of samples.

Samples collected for metals and anion/Total Dissolved Solids (TDS) analyses were collected in separate containers. With the exception of mercury, metals were field filtered with a 0.45 micron filter and placed in a 250-ml plastic bottle and preserved with HNO_3. Samples for anion/TDS analysis were collected in liter plastic bottles and placed on ice. The samples were analyzed using methods EPA methods SW6020 for metals, and methods E300, SM2320B, and M2540C, respectively, for anions, alkalinity and TDS.

V. Groundwater Elevations, Flow Direction, and Hydraulic Gradient

Groundwater elevations for the current year are summarized in Table 1. Water table elevation maps (potentiometric surface) and direction of groundwater flow for June 2009 quarter are depicted in Figures 4 and 5. Figure 4 covers the entire refinery while Figure 5 shows water level contours in the refinery process area. Groundwater elevations for prior years are shown in Appendix A.

As discussed previously, based on past measurements, the water table elevation has been declining at the rate of approximately 1.2 to 1.4 feet per year with an accelerated decline shown for the current year. Measurements for 2009 show that the decline may be as much as 2.4 feet if it continues through the fall and winter months. However, pumping of City of Lovington wells typically is reduced over those months so the decline is unlikely to exceed 2 feet.

Depth to groundwater occurs at approximately 106 to 107 feet below ground surface in the refinery process area. To the southeast, depth to water is 90 to 93 feet. The regional direction of flow is southeast. However, as seen in Figure 4, groundwater flow direction is influenced by the refinery pumping wells and likely by City of Lovington wells across the highway to the northeast of the refinery. In the vicinity of MW-12, the direction is northerly. It is more easterly in the area of the north and south water wells and east-southeasterly in the refinery process area.

In addition to a change in flow direction across the site, the hydraulic gradient also steepens in proximity to the pumping wells. In the vicinity of MW-12, the gradient is 0.0012 ft./ft. West-southwest of the north and south water wells, the gradient is 0.0036 ft./ft. In the area between MW-4 and MW-1 the gradient is 0.0040 ft./ft. and near MW-13 it is 0.0065.

VI. Distribution of Hydrocarbons in Groundwater

Analytical results for BETX and other SW 8260 volatiles in groundwater for the current sampling event are summarized in Table 2. Constituents having detectable concentrations are shown in yellow with concentrations above the New Mexico Water Quality Control Commission (WQCC) standards highlighted in boldface type. The laboratory reports and COC documentation for samples obtained by SESI are included in Appendix D.

Based on the most recent analytical data for samples collected by SESI in June 2009, the distribution of volatile hydrocarbons at the Lea Refinery is described below:

- Volatile hydrocarbon concentrations in upgradient monitoring wells MW-2 and MW-4, process area wells MW-8, MW-9 and MW-10, down-gradient wells MW-3 and MW-13, and off-gradient wells MW-5, MW-12 and MW-14 were below the laboratory detection limit and below WQCC standards. The method reporting limit for all constituents is 0.0050 mg/L except for total xylenes (0.015 mg/L).

- Volatile hydrocarbons were detected in wells MW-1, MW-6, MW-7 and RW-1 (all near the wastewater separator) and in MW-11 directly downgradient from the refinery process area.

- Of the detected volatiles, only benzene in MW-11 (0.10 mg/L) exceeded a WQCC standard (0.010 mg/L). A benzene concentration map showing the location of the elevated level is shown in Figure 6.

- The semi-volatiles naphthalene and acetophenone were detected in MW-6, the well directly downgradient from the wastewater separator. The detection for naphthalene was below the WQCC standard. MW-1 showed a detection of 1-Methylnaphthalene which also was below the WQCC standard. Phenols were detected in MW-1, MW-6 and RW-1; however all concentrations were below the WQCC standard of 0.005 mg/L. There is not a listed water quality standard for acetophenone.

- Various semi-volatile phthalates were seen in all samples, including those from the water wells. The likely source in the monitor wells was the PVC casing or the dedicated tubing. The low levels in the water wells were likely laboratory contamination. Phthalates or phthalate esters, are esters of phthalic acid and are mainly used as plasticizers (substances added to plastics to increase their flexibility, transparency, durability, and longevity).

VII. Sampling Results for Inorganic Constituents

Sampling was conducted for major cations and anions, total dissolved solids (TDS) and WQCC metals. The results of the sampling are shown in Table 3 and the results highlighted below.

- Analytical results of sampling for WQCC metals showed no detections in excess of WQCC standards except for manganese in wells MW-1, MW-6 and MW-11. These wells also have dissolved phase hydrocarbon impacts which most likely have changed the groundwater environment in the immediate proximity of the wells from aerated to anoxic conditions. Manganese in the environment commonly becomes soluble in the absence of oxygen.

- Results of major anion and TDS sampling showed exceedances of the chloride standard in three wells (MW-2, MW-13 and the south water well). TDS exceeded the standard in MW-13 and the south water well, and was just below the standard in MW-2. Fluoride slightly exceeded the WQCC standard in MW-9.

A chloride concentration map of the refinery process area is shown in Figure 7. The map shows chloride concentrations exceeding 200 mg/L in the vicinity of the process area. Within the process area, Navajo has replaced and tested the wastewater sewer system and the oil desalter sumps. However, well MW-2 with a concentration of 252 mg/L is upgradient of the process area but downgradient from several older oil and gas production areas located just to the northwest and outside the refinery boundary. Also, MW-13, with a chloride concentration of 425 mg./L is downgradient from a now-inactive oil and gas production site within the refinery itself. In recent years the two wells located there injected waste salt water and could be a potential source of contamination if the well casings had diminished integrity. Both of these wells are now plugged.

Lastly, the south water well has just under 500 mg/L of chloride. The groundwater flow direction at that location is from southwest to northeast and numerous oil and gas production facilities exist to the west and southwest of the refinery property. Though the OCD has banned pits in the area since at least 1967 older discharges to unlined impoundments had the potential to migrate to groundwater and cause elevated levels of chloride and TDS. This is likely the explanation for the elevated chloride and TDS concentrations seen in the vicinity of the process area and at the south water well.

VIII. Groundwater Temperature

Measurement of groundwater temperature in the vicinity of the wastewater separator has shown elevated levels as high as 28.4° centigrade (83.1° Fahrenheit) in MW-9 in August 2001. The elevated temperatures compared to normal summer temperatures of 20-22° C (68-72° F) were considered evidence of a leak in the wastewater system as the separator contained hot water.

Navajo completed emptying, cleaning and sealing the wastewater separator system in 2003. The sumps were sandblasted and coated with oil and waterproof sealants and static tested. Sampling subsequent to that time showed a decline in temperatures though measurement was difficult as water levels declined and wells dried up.

Sampling of the new wells conducted in June 2009 showed no significant difference in temperatures between monitor wells. Upgradient well MW-4 had a temperature of 20.9° C (69.6° F) at the conclusion of purging. MW-1 and MW-7 located adjacent to the separator had temperatures of 22.7° C (72.8° F) and 22.0° C (71.6° F) after purging. And the north and east water wells had temperatures of 22.5° C (72.5° F) and 20.6° C (69.1° F) respectively when sampled. These results lead to the conclusion that the retrofitting of the wastewater separator performed by Navajo has stopped leakage of fluids from the unit.

IX. Oil Recovery

Hydrocarbon product had been detected in groundwater in the vicinity of the wastewater separator at the Lea Refinery since installation of the first monitor wells in September 1995. A recovery well and an air sparge/soil vapor extraction system was installed at the facility in November 1996. The system included seven air sparge/vapor extraction wells and a Xitech oil recovery pump in RW-1 to remove the source of contamination. A total of 160 gallons of free product was recovered along with 8,870 lbs of TVHC (Total volatile hydrocarbons). The system was shut down in September 1999 because the most recent BTEX and TVHC samplings showed concentrations below detection limits and product had been mostly removed from the monitor wells.

However in 2000-2001 product again increased in the two nearby monitor wells (located within 15-20 feet of the recovery well). The Xitech pump recovered product from the RW-1 which was transferred to a storage container for further recycling to the refinery. The total volume recovered is somewhat in excess of 250 gallons (6 barrels).

In 2001 the depth to product varied depending on pump operation. Product thickness varied from less than 0.01 feet to 4.5 feet. Depth to water was 96.5 feet. However, a downgradient monitor well about 50 feet away on the other side of the wastewater separator did not detect measurable hydrocarbon and very little dissolved phase hydrocarbon.

By 2007 the water table in the vicinity of the recovery well had declined so that product and water in the two monitor wells (MW-1 and MW-7) was not detected (i.e. they were dry). In 2008 the water and product levels in the recovery well (RW-1) had declined so that the installed recovery pump could no longer recover product. At the time of the last measurements of the old wells on March 17, 2009, MW-1 and MW-7 remained dry and in recovery well RW-1 product was 0.6 feet thick and there was slightly over 3 feet of fluid in the well.

Groundwater measurements made in April, June, July and September 2009 have not shown any hydrocarbon product in any of the three replacement wells. These measurements are shown Table 1. Measurements for these three wells are planned to be made quarterly for the foreseeable future.

A plausible reason for the absence of product in the wells is that the leak had been stopped and what was seen in the old wells was oil from the leak seeping through the intervening sandy material to the water table. By drilling new wells adjacent to the old ones, oil in the formation was removed in the drilling process and what is left there is mainly held by capillary forces and little or none will drain by gravity. The design of the wells is such that any further leaks will be detected during quarterly measurements to allow early remedial action and product recovery.

As described previously, following removal of the sand and mud on June 16, water quality samples were taken on June 19, 2009. For the three replacement wells adjacent to the wastewater separator, results of the sampling for dissolved-phase volatile hydrocarbons show no exceedances of New Mexico Water Quality Control Commission or EPA Drinking Water Standards for volatiles. Water quality sampling is to be conducted in these and other refinery monitor wells on a semi-annual basis with the next sampling scheduled for December 2009.

X. Conclusions

- With the exception of MW-11 benzene concentrations in all wells are below detection levels and below WQCC and EPA drinking water standards. The level in MW-11 is ten times the WQCC standard and is likely due to past releases in the refinery process area. Navajo is retrofitting the process units during refinery expansion and to comply with other provisions of the discharge plan to prevent spills and leaks.

- No hydrocarbon product has been found or hydrocarbon sheen detected in the replacement monitor wells adjacent to the wastewater separator. Groundwater temperatures in these wells are comparable to temperatures in monitor wells away from the area. This leads to the conclusion that the retrofitting completed by Navajo at the separator six years ago has solved the problem of wastewater fluids and oil leaking to the groundwater.

- Minor dissolved concentrations of ethylbenzene, xylenes and naphthalene were found in the replacement monitor wells adjacent to the wastewater separator. However concentrations of these constituents are well below WQCC standards.

- No volatile organic compounds were found in the refinery water supply wells. Chloride and TDS in the south well exceed WQCC standards. Because water from the wells is used by the refinery for hand washing, showering, etc., the wells are now monitored for BETX on at least a semi-annual basis.

- Based on the groundwater flow map and sample results, it appears that the elevated concentrations of chloride and TDS in monitor wells and the south water well are from non-refinery sources. The likely source of chlorides in the process area is migration from upgradient oil production areas northwest of the refinery boundary. The likely source of chlorides in MW-13 is the now inactive oil production/injection well site southeast of MW-11. The likely source of chlorides in the south water well is from oil production areas to the southwest of the refinery boundary.

XI. Future Work

Navajo is continuing semi-annual monitoring with the next sampling event scheduled for December 2009.

XII. Report Tables and Figures

Table 1. 2009 Water Level Elevation Measurements, Navajo Refining Company, Lea Refinery, Lovington, NM

Monitor Well, Depth Below TOC (feet)	Elevation Top of Casing (TOC, feet)	Measure-ment Date	Depth to Product (feet)	Depth to Water Below TOC (feet)	Product Thickness (feet)	Corrected Depth to Water (feet)	Corrected Water Level Elev. (feet)	Saturated Water Thickness (feet)	Change from previous (feet)
MW-1	3,838.40	04/30/09	- -	106.35	0	106.35	3,732.05	22.8	- -
129.12		06/10/09	- -	106.49	0	106.49	3,731.91	22.6	-0.14
		06/19/09	- -	106.68	0	106.68	3,731.72	22.4	-0.19
		07/02/09	- -	106.75	0	106.75	3,731.65	22.4	-0.07
		07/24/09	- -	106.84	0	106.84	3,731.56	22.3	-0.09
		09/24/09	- -	107.31	0	107.31	3,731.09	21.8	-0.47
MW-2	3,837.35	06/22/09	- -	104.32	0	104.32	3,733.03	22.1	- -
126.41									
MW-3	3,831.65	06/18/09	- -	102.65	0	102.65	3,729.00	27.8	- -
130.45									
MW-4	3,839.89	06/16/09	- -	106.79	0	106.79	3,733.10	21.2	- -
128.02									
MW-5	3,819.15	06/16/09	- -	90.84	0	90.84	3,728.31	24.2	- -
115.00									
MW-5 before plugging, 3.2 feet water 3/17/09									
MW-6	3,838.16	06/18/09	- -	106.64	0	106.64	3,731.52	23.1	- -
129.74		07/24/09	- -	106.92	0	106.92	3,731.24	22.8	-0.28
		09/24/09	- -	107.44	0	107.44	3,730.72	22.3	-0.52
MW-6R before plugging, 4.0 feet water 3/17/09									
MW-7	3,838.42	04/30/09	- -	106.37	0	106.37	3,732.05	22.9	- -
129.29		06/10/09	- -	106.48	0	106.48	3,731.94	22.8	-0.11
		06/19/09	- -	106.68	0	106.68	3,731.74	22.6	-0.20
		07/02/09	- -	106.75	0	106.75	3,731.67	22.5	-0.07
		07/24/09	- -	106.84	0	106.84	3,731.58	22.5	-0.09
		09/24/09	- -	107.33	0	107.33	3,731.09	22.0	-0.49

Table 1. 2009 Water Level Elevation Measurements, Navajo Refining Company, Lea Refinery, Lovington, NM

Monitor Well, Depth Below TOC (feet)	Elevation Top of Casing (TOC, feet)	Measure-ment Date	Depth to Product (feet)	Depth to Water Below TOC (feet)	Product Thickness (feet)	Corrected Depth to Water (feet)	Corrected Water Level Elev. (feet)	*Saturated* Water Thickness (feet)	Change from previous (feet)
MW-8	3,839.98	06/18/09	- -	109.37	0	109.37	3,730.61	22.9	- -
132.30									
MW-9	3,835.22	06/16/09	- -	104.58	0	104.58	3,730.64	24.6	- -
129.18									
MW-10	3,833.66	06/18/09	- -	102.57	0	102.57	3,731.09	26.6	- -
129.14									
MW-11	3,839.56	03/17/09	- -	107.91	0	107.91	3,731.65	9.6	- -
117.51		06/18/09	- -	108.65	0	108.65	3,730.91	8.9	-0.74
MW-12	3,822.73	03/17/09	- -	93.75	0	93.75	3,728.98	6.8	- -
100.51		06/16/09	- -	93.83	0	93.83	3,728.90	6.7	-0.08
MW-13	3,837.06	03/17/09	- -	108.36	0	108.36	3,728.70	11.3	- -
119.70		06/16/09	- -	108.58	0	108.58	3,728.48	11.1	-0.22
MW-14	3,823.03	03/17/09	- -	93.84	0	93.84	3,729.19	11.2	- -
105.04		06/16/09	- -	93.92	0	93.92	3,729.11	11.1	-0.08
RW-1	3,838.48	04/30/09	- -	106.45	0	106.45	3,732.03	23.3	- -
129.73		06/10/09	- -	106.59	0	106.59	3,731.89	23.1	-0.14
		06/19/09	- -	106.61	0	106.61	3,731.87	23.1	-0.02
		07/02/09	- -	106.82	0	106.82	3,731.66	22.9	-0.21
		07/24/09	- -	106.92	0	106.92	3,731.56	22.8	-0.10
		09/24/09	- -	107.42	0	107.42	3,731.06	22.3	-0.50
Notes:									
1. Monitoring wells MW-1 through MW-7 installed September 1995; plugged and redrilled April 2009.									
2. Monitoring wells MW-8 through MW-10 installed March and April 1996; plugged and redrilled April 2009.									
3. Monitoring wells MW-6R, MW-11, MW-12 installed April and May 2002; MW-6R plugged April 2009.									
4. Monitoring wells MW-13 and MW-14 installed January 2004.									

Table 2. Organic Constituent Concentrations in Groundwater, Navajo Refining Company, Lea Refinery, Lovington, NM

Monitor Well	Sample Date	Benzene (mg/L)	Ethyl-benzene (mg/L)	Toluene (mg/L)	Total Xylenes (mg/L)	Total BETX (mg/L)	MTBE (mg/L)	Total Naphthalene (8260, mg/L)	Total Naphthalene (8270, mg/L)	Aceto-phenone (mg/L)	Other volatiles? (see notes)	Other semi-volatiles?	Type?
MW-1	06/19/09	<0.0050	0.012	<0.0050	0.031	0.043	<0.0050	<0.0050	0.00037	<0.00020	Yes	Yes	Phthaletes, phenol
MW-2	06/22/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	<0.0050	<0.00020	No	Yes	Phthaletes
MW-3	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	<0.0050	<0.00020	No	Yes	Phthaletes
MW-4	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	<0.0050	<0.00020	No	Yes	Phthaletes
MW-5	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	<0.0050	<0.00020	No	Yes	Phthaletes
MW-6	06/18/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	0.0075	0.0041	0.021	Yes	Yes	Phthaletes, phenol
(duplicate)	06/18/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	0.0074	0.0040	0.021	Yes	Yes	Phthaletes, phenol
MW-7	06/19/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	<0.0050	<0.00020	Yes	Yes	Phthaletes
MW-8	06/18/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	<0.0050	<0.00020	No	Yes	Phthaletes
MW-9	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	0.00087	<0.00020	No	Yes	Phthaletes
MW-10	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	<0.0050	<0.00020	No	Yes	Phthaletes
MW-11	06/18/09	**0.10**	<0.0050	<0.0050	<0.015	0.10	<0.0050	<0.0050	<0.0050	<0.00020	No	Yes	Phthaletes
MW-12	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	<0.0050	<0.00020	No	Yes	Phthaletes
MW-13	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	<0.0050	<0.00020	No	Yes	Phthaletes
MW-14	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	<0.0050	<0.00020	No	Yes	Phthaletes
RW-1	06/19/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	<0.0050	<0.00020	Yes	Yes	Phthaletes, phenol
NM WQCC Groundwater Standards (mg/L):		**0.010**	**0.75**	**0.75**	**0.62**	--	--	**0.03**	**0.03**	--	--	--	--

Table 2. Organic Constituent Concentrations in Groundwater, Navajo Refining Company, Lea Refinery, Lovington, NM

Monitor Well	Sample Date	Benzene (mg/L)	Ethyl-benzene (mg/L)	Toluene (mg/L)	Total Xylenes (mg/L)	Total BETX (mg/L)	MTBE (mg/L)	Total Naphthalene (8260, mg/L)	Total Naphthalene (8270, mg/L)	Aceto-phenone (mg/L)	Other volatiles? (see notes)	Other semi-volatiles?	Type?
North Well	06/18/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	<0.0050	<0.00020	No	Yes	Phthaletes
South Well	06/22/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	<0.0050	<0.00020	No	Yes	Phthaletes
East Well	06/18/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	<0.0050	<0.00020	No	Yes	Phthaletes
Trip Blanks (6)		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	--	--	No	--	--
NM WQCC Groundwater Standards (mg/L):		**0.010**	**0.75**	**0.75**	**0.62**	--	--	**0.03**	**0.03**	--	--	--	--

Notes:

Yellow, constituent detected. **Bold,** exceeds NM WQCC standard

MW-1, Low level detections for 1,2,4-Trimethylbenzene (0.0067 mg/L), and 2-Butanone (0.060 mg/L)

MW-6, Low level detections for 1,2,4-Trimethylbenzene (0.0058 mg/L), 2-Butanone (0.30 mg/L) and Acetone (0.059 mg/l)

MW-6, Duplicate, Low level detections for 1,2,4-Trimethylbenzene (0.0061 mg/L), 2-Butanone (0.28 mg/L) and Acetone (0.057 mg/l)

MW-7, Low level detection for 2-Butanone (0.030 mg/L)

RW-1, Low level detection for 2-Butanone (0.038 mg/L)

Analyses performed by ALS Laboratory Group, Houston, Texas

Table 3. Inorganic Constituent Concentrations in Groundwater, Navajo Refining Company, Lea Refinery, Lovington, NM

Monitor Well	Sample Date	Chloride (mg/L)	Fluoride (mg/L)	Nitrate-Nitrite (as N, mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)
MW-1	06/19/09	131	0.827	3.75	123	694	<0.0100	0.00914	0.147	0.175	<0.00200	<0.00500	<0.00500
MW-2	06/22/09	**252**	0.765	2.69	66.8	988	0.0657	0.0386	0.0803	0.190	<0.00200	<0.00500	<0.00500
MW-3	06/16/09	29.1	3.38	2.19	64.6	504	0.308	0.00815	0.115	0.160	<0.00200	0.00709	<0.00500
MW-4	06/16/09	28.9	0.841	1.84	61.5	422	0.180	<0.00500	0.174	0.160	<0.00200	0.00534	<0.00500
MW-5	06/16/09	186	1.39	3.31	131	952	0.796	0.0233	0.0639	0.116	<0.00200	<0.00500	<0.00500
MW-6	06/18/09	188	0.113	0.678	101	844	<0.0100	0.0201	0.186	0.175	<0.00200	<0.00500	<0.00500
(duplicate)	06/18/09	168	<0.100	0.682	90.4	812	<0.0100	0.0221	0.200	0.192	<0.00200	<0.00500	<0.00500
MW-7	06/19/09	30.6	1.12	1.66	67.2	384	<0.0100	0.00923	0.169	0.161	<0.00200	<0.00500	<0.00500
MW-8	06/18/09	219	0.730	3.46	73.3	798	<0.0100	0.00501	0.181	0.228	<0.00200	<0.00500	<0.00500
MW-9	06/16/09	23.0	**1.69**	0.748	73.2	380	0.0468	0.0373	0.0911	0.122	<0.00200	<0.00500	<0.00500
MW-10	06/16/09	32.2	0.878	1.83	76.5	378	<0.0200	<0.00500	0.113	0.138	<0.00200	<0.00500	<0.00500
MW-11	06/18/09	204	0.579	1.23	43.1	994	<0.0100	<0.00500	0.194	0.199	<0.00200	<0.00500	<0.00500
MW-12	06/16/09	23.0	1.16	1.98	49.6	354	<0.0200	0.00516	0.0775	0.200	<0.00200	<0.00500	<0.00500
MW-13	06/16/09	**425**	0.220	2.65	138	**1,790**	<0.0200	<0.00500	0.0692	0.253	<0.00200	<0.00500	0.0285
NM WQCC Groundwater Standards:		**250**	**1.6**	**10**	**600**	**1,000**	**5.0**	**0.1**	**1.0**	**0.750**	**0.01**	**0.05**	**0.05**

Table 3. Inorganic Constituent Concentrations in Groundwater, Navajo Refining Company, Lea Refinery, Lovington, NM

Monitor Well	Sample Date	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
MW-1	06/19/09	<0.00500	<0.200	<0.00500	**0.974**	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.0124
MW-2	06/22/09	0.00621	<0.200	<0.00500	0.00583	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.110
MW-3	06/16/09	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	0.0151	<0.00500	<0.00500	<0.00500	- -	<0.0100
MW-4	06/16/09	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.0120
MW-5	06/16/09	<0.00500	0.399	<0.00500	0.0067	<0.000200	0.0103	<0.00500	<0.00500	<0.00500	- -	<0.0100
MW-6	06/18/09	<0.00500	0.418	<0.00500	**2.86**	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.00996
(duplicate)	06/18/09	<0.00500	0.219	<0.00500	**2.76**	<0.000200	<0.00500	0.00653	<0.00500	<0.00500	- -	0.0141
MW-7	06/19/09	<0.00500	<0.200	<0.00500	0.127	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.0137
MW-8	06/18/09	<0.00500	<0.200	<0.00500	0.00919	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.0458
MW-9	06/16/09	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	<0.0100
MW-10	06/16/09	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.0127
MW-11	06/18/09	<0.00500	0.571	<0.00500	**0.387**	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.0212
MW-12	06/16/09	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	<0.0100
MW-13	06/16/09	<0.00500	<0.200	<0.00500	0.0176	<0.000200	<0.00500	0.0126	<0.00500	<0.00500	- -	0.0269
NM WQCC Groundwater Standards:		**1.0**	**1.0**	**0.05**	**0.20**	**0.002**	**1.0**	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**

Table 3. Inorganic Constituent Concentrations in Groundwater, Navajo Refining Company, Lea Refinery, Lovington, NM

Monitor Well	Sample Date	Chloride (mg/L)	Fluoride (mg/L)	Nitrate-Nitrite (as N, mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)
MW-14	06/16/09	93.0	0.851	5.16	60.9	540	<0.0200	<0.00500	0.0770	0.132	<0.00200	<0.00500	<0.00500
RW-1	06/19/09	34.8	1.21	- -	70.8	398	<0.0100	0.010	0.160	0.161	<0.00200	<0.00500	<0.00500
North Well	06/18/09	140	0.933	2.72	80.6	664	<0.0100	0.00536	0.0997	0.151	<0.00200	0.0104	<0.00500
South Well	06/22/09	**497**	0.665	3.02	106	**1,450**	<0.0100	<0.00500	0.154	0.189	<0.00200	<0.00500	<0.00500
East Well	06/18/09	107	0.980	2.59	84.0	554	0.0131	<0.00500	0.0820	0.143	<0.00200	<0.00500	<0.00500
NM WQCC Groundwater Standards:		**250**	**1.6**	**10**	**600**	**1,000**	**5.0**	**0.1**	**1.0**	**0.750**	**0.01**	**0.05**	**0.05**

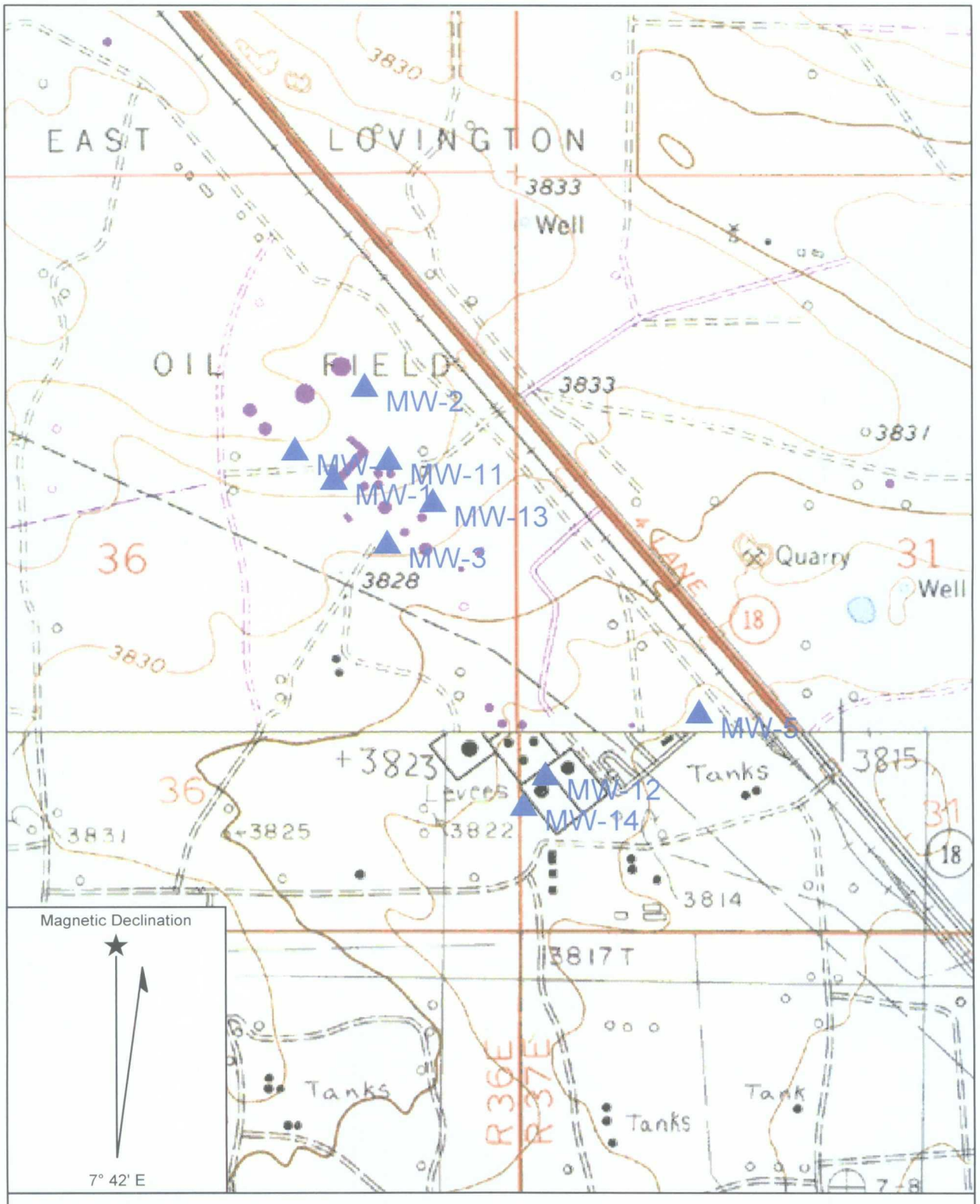
Notes:
Bold highlighted, exceeds NM WQCC standard
Samples field filtered except for Total Mercury
Uranium not analyzed for this sample set
Analyses performed by ALS Laboratory Group, Houston, Texas

Table 3. Inorganic Constituent Concentrations in Groundwater, Navajo Refining Company, Lea Refinery, Lovington, NM

Monitor Well	Sample Date	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
MW-14	06/16/09	<0.00500	<0.200	<0.00500	0.0199	<0.000200	0.0215	<0.00501	<0.00500	<0.00500	--	0.0255
RW-1	06/19/09	<0.00500	<0.200	<0.00500	0.0380	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	0.00548
North Well	06/18/09	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	<0.00500
South Well	06/22/09	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	0.0195
East Well	06/18/09	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	0.0172
NM WQCC Groundwater Standards:		**1.0**	**1.0**	**0.05**	**0.20**	**0.002**	**1.0**	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**

Notes:
Bold, exceeds NM WQCC standard
Samples field filtered except for Total Mercury
Uranium not analyzed for this sample set
Analyses performed by ALS Laboratory Group, Houston, Texas

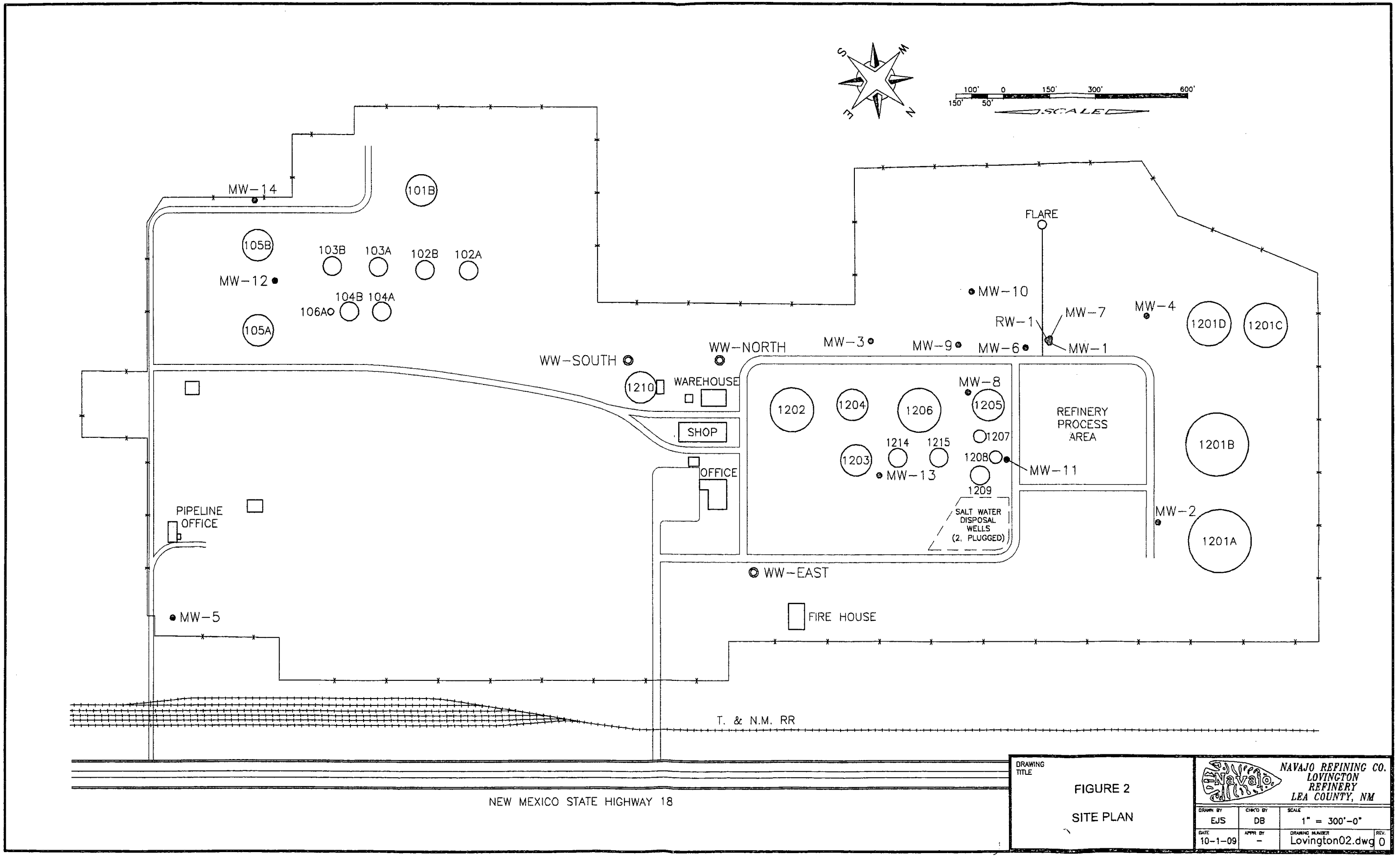
Figure 1. Location Map, Navajo Refining Company, Lea Refinery, Lovington, New Mexico



Name: LOVINGTON
Date: 10/7/2009
Scale: 1 inch equals 1000 feet

Location: 032° 52' 39.49" N 103° 17' 59.87" W NAD83
Caption: Figure 1. Location Map, Navajo Lea Refinery, Lovington, NM

Figure 2. Site Plan, Navajo Refining Company, Lea Refinery, Lovington, New Mexico



DRAWING TITLE

FIGURE 2

SITE PLAN

NAVAJO REFINING CO.
LOVINGTON REFINERY
LEA COUNTY, NM

DRAWN BY	CHK'D BY	SCALE
EJS	DB	1" = 300'-0"
DATE	APPR BY	DRAWING NUMBER / REV.
10-1-09	-	Lovington02.dwg / 0

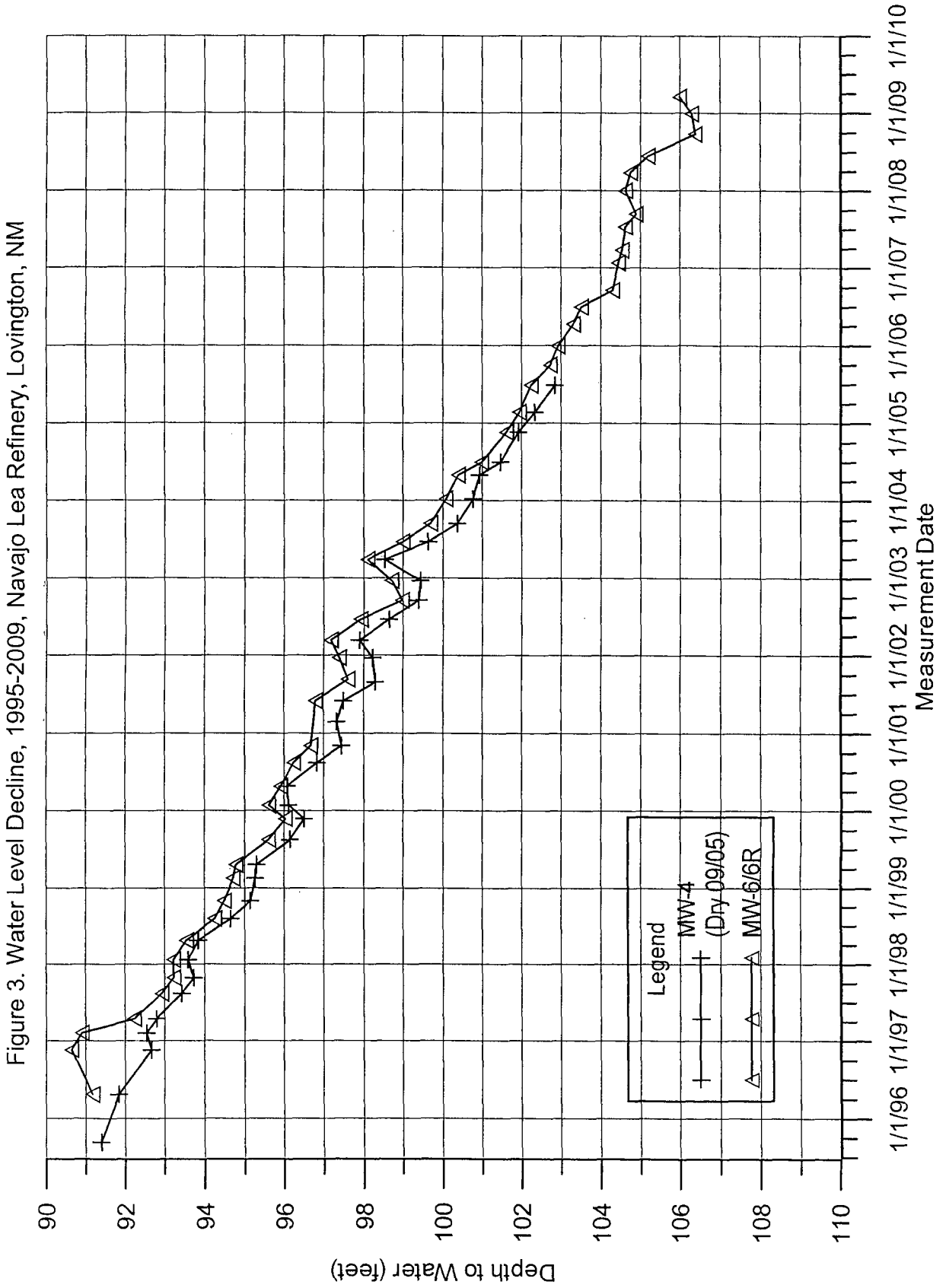
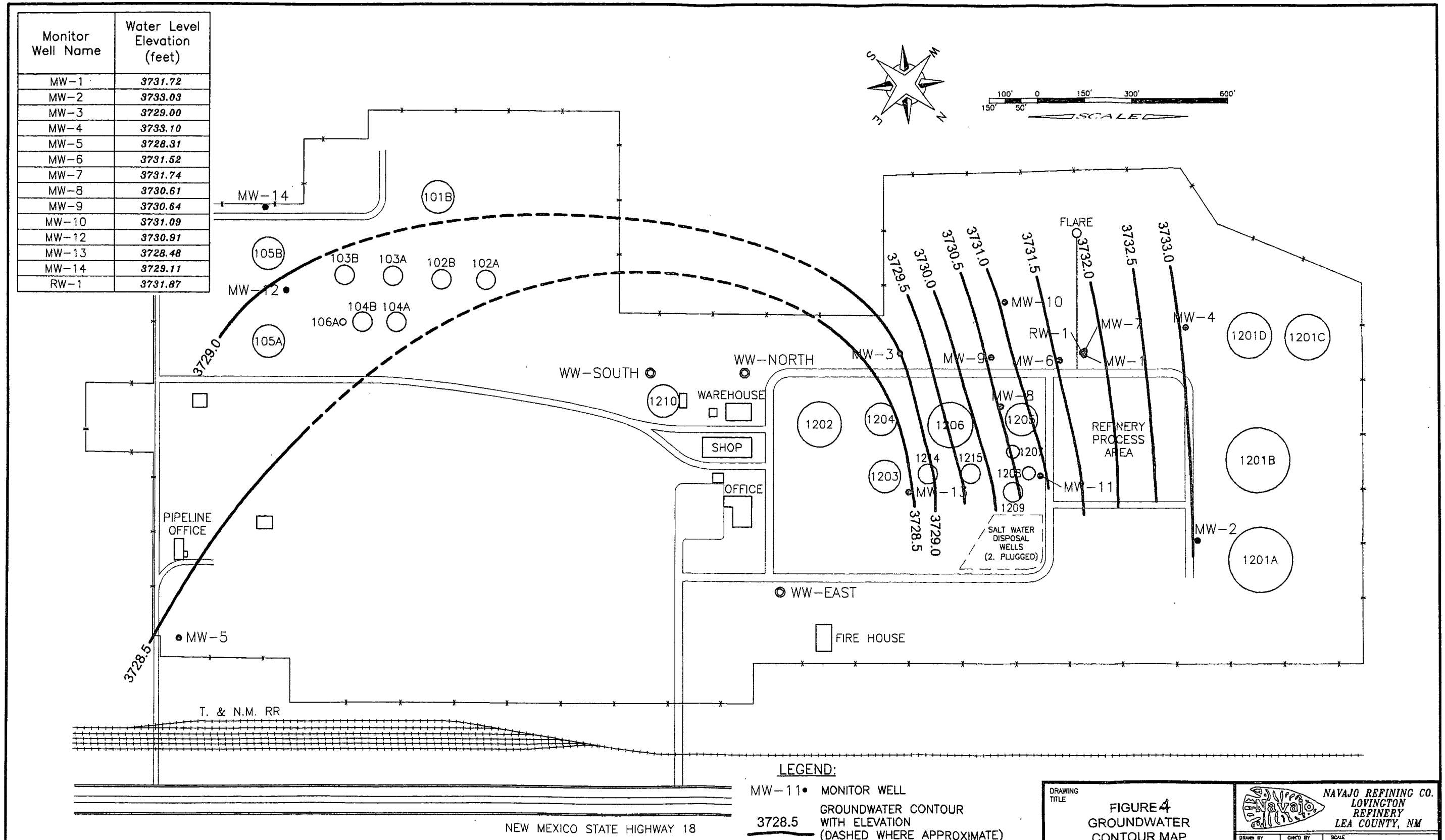


Figure 3. Water Level Decline, 1995-2009, Navajo Lea Refinery, Lovington, NM
Depth to Water (feet)
90
92
94
96
98
100
102
104
106
108
110
Measurement Date
1/1/96
1/1/97
1/1/98
1/1/99
1/1/00
1/1/01
1/1/02
1/1/03
1/1/04
1/1/05
1/1/06
1/1/07
1/1/08
1/1/09
1/1/10
Legend
MW-4 (Dry 09/05)
MW-6/6R

Figure 4. Groundwater Contour Map, June 16-19, 2009, Navajo Refining Company, Lea Refinery Lovington, New Mexico

Monitor Well Name	Water Level Elevation (feet)
MW-1	3731.72
MW-2	3733.03
MW-3	3729.00
MW-4	3733.10
MW-5	3728.31
MW-6	3731.52
MW-7	3731.74
MW-8	3730.61
MW-9	3730.64
MW-10	3731.09
MW-12	3730.91
MW-13	3728.48
MW-14	3729.11
RW-1	3731.87



LEGEND:

MW-11• MONITOR WELL

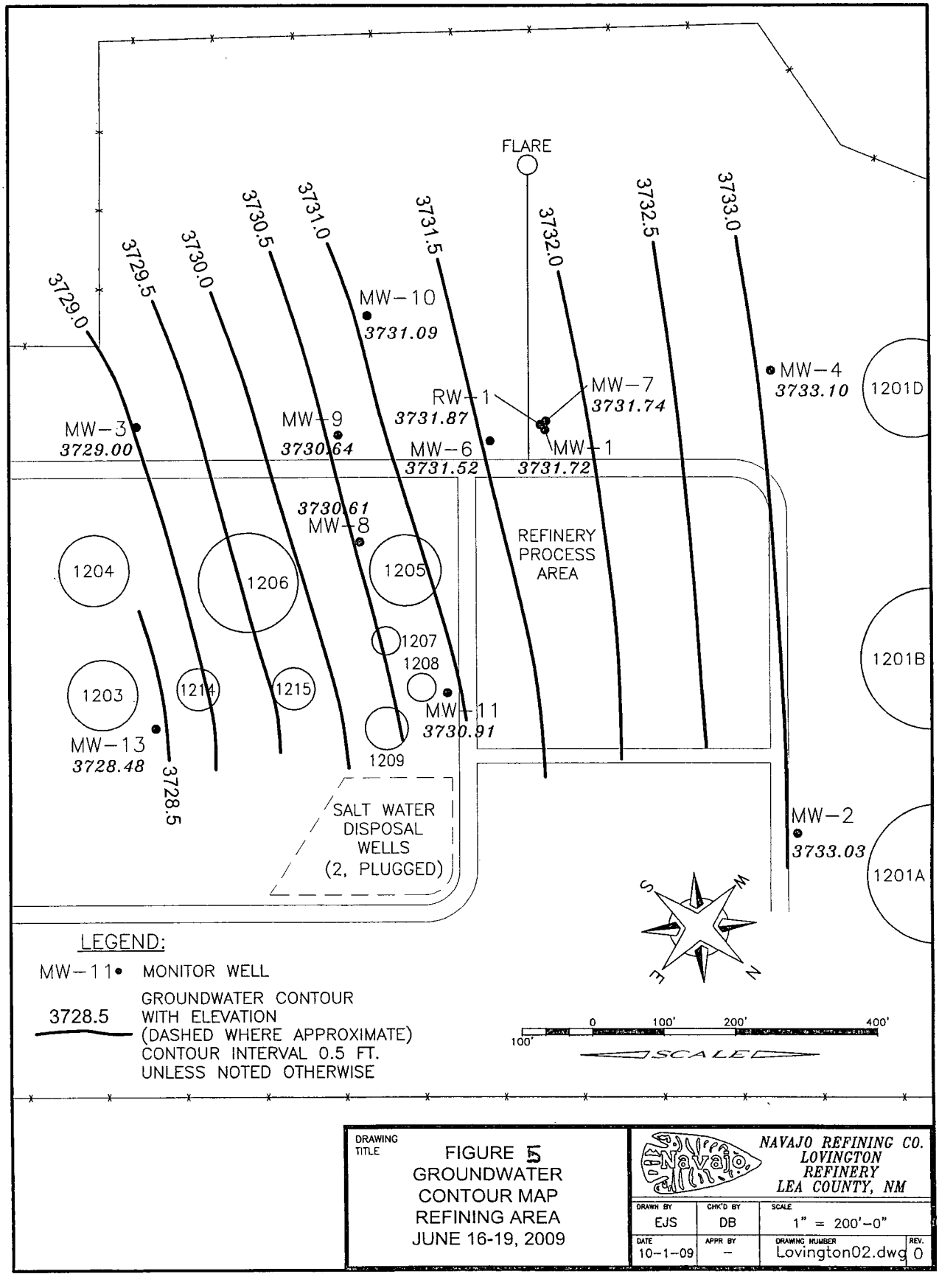
3728.5 GROUNDWATER CONTOUR WITH ELEVATION (DASHED WHERE APPROXIMATE) CONTOUR INTERVAL 0.5 FT. UNLESS NOTED OTHERWISE

DRAWING TITLE

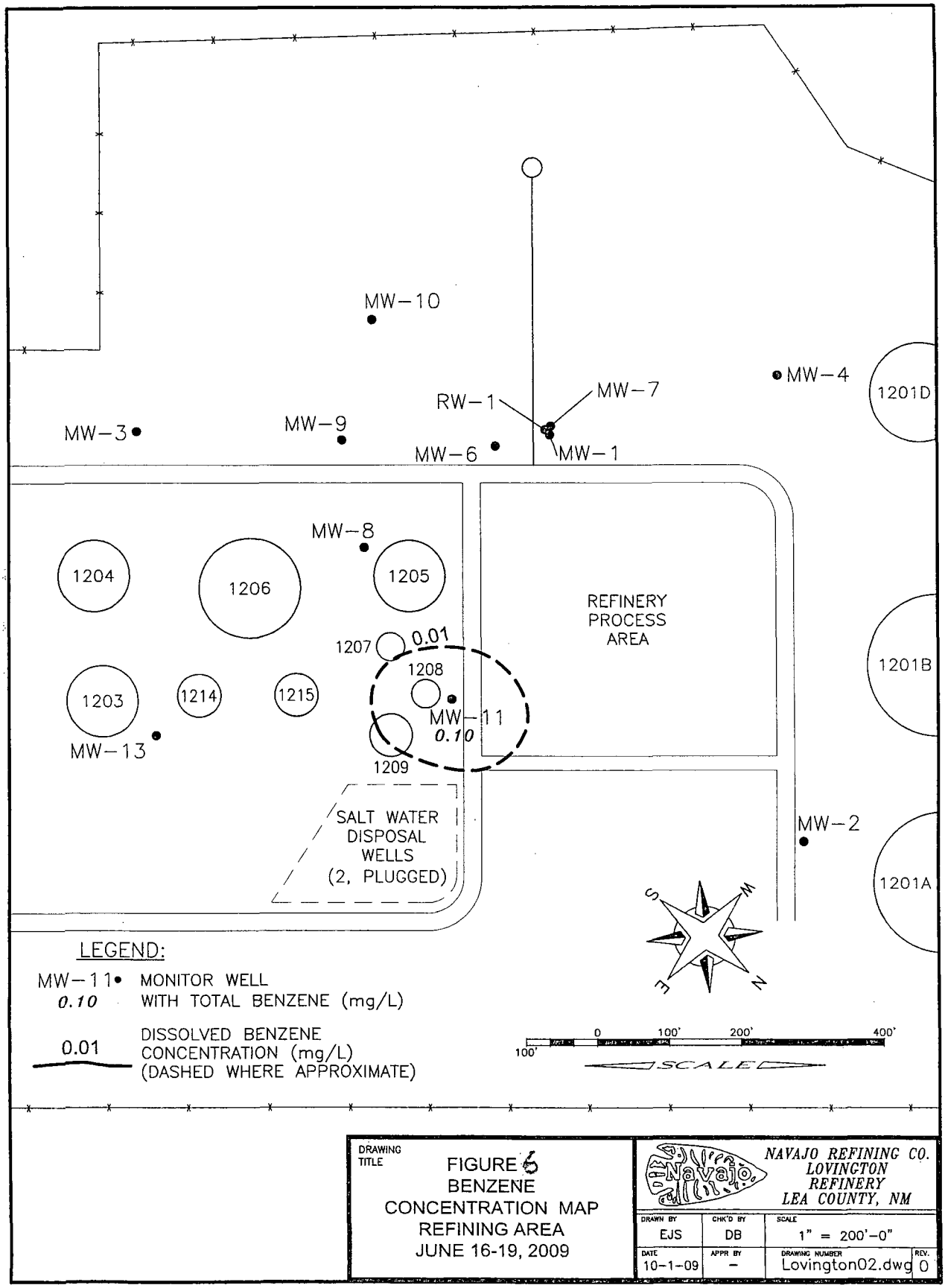
FIGURE 4
GROUNDWATER CONTOUR MAP
JUNE 16-19, 2009

NAVAJO REFINING CO.
LOVINGTON REFINERY
LEA COUNTY, NM

DRAWN BY	CHK'D BY	SCALE	
EJS	DB	1" = 300'-0"	
DATE 10-1-09	APPR BY -	DRAWING NUMBER Lovington02.dwg	REV. 0



DRAWING TITLE		NAVAJO REFINING CO. LOVINGTON REFINERY LEA COUNTY, NM		
FIGURE 5 GROUNDWATER CONTOUR MAP REFINING AREA JUNE 16-19, 2009		DRAWN BY: EJS	CHK'D BY: DB	SCALE: 1" = 200'-0"
		DATE: 10-1-09	APPR BY: –	DRAWING NUMBER: Lovington02.dwg REV. 0

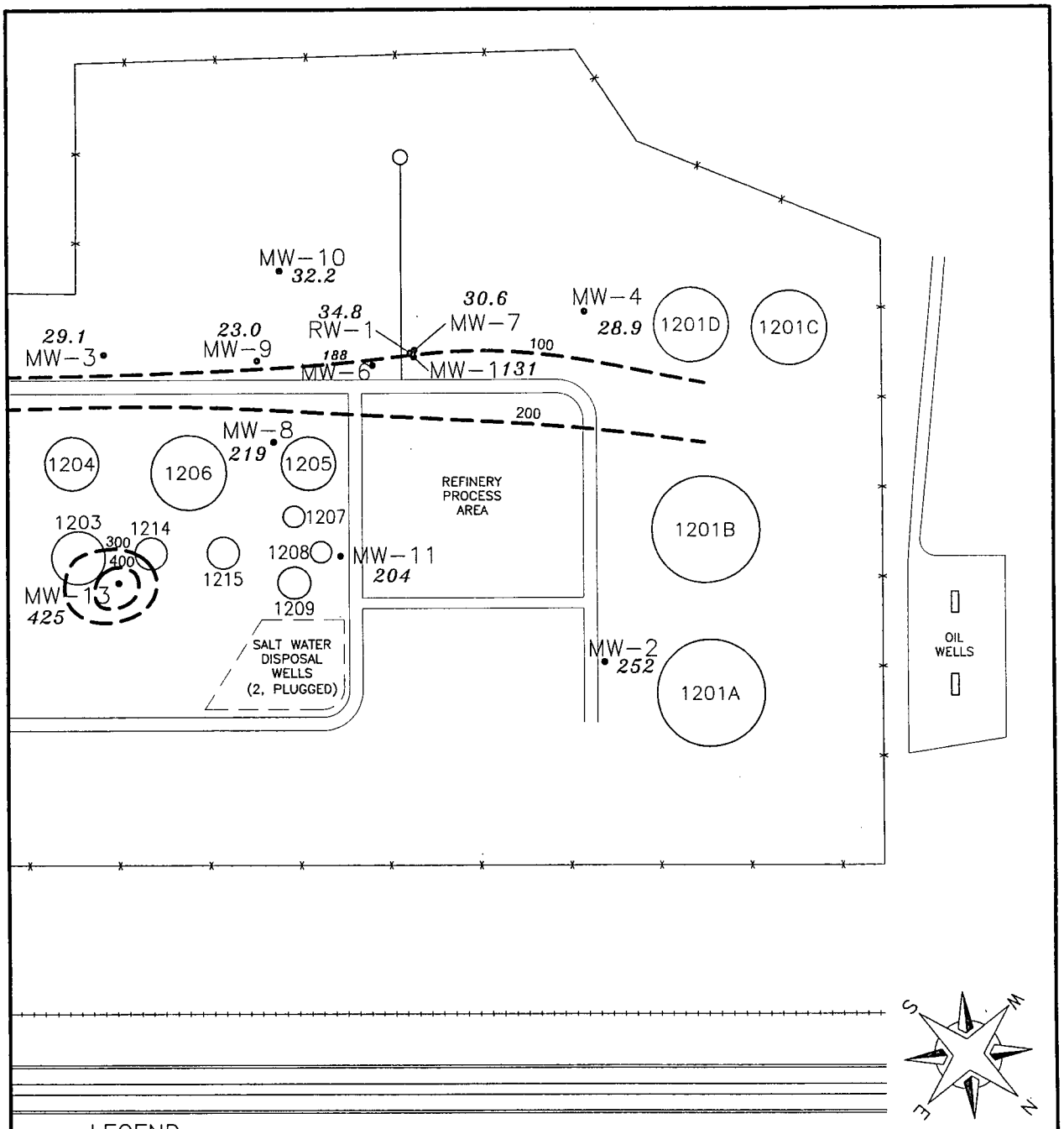


DRAWING TITLE

FIGURE 6
BENZENE
CONCENTRATION MAP
REFINING AREA
JUNE 16-19, 2009

NAVAJO REFINING CO.
LOVINGTON
REFINERY
LEA COUNTY, NM

DRAWN BY	CHK'D BY	SCALE
EJS	DB	1" = 200'-0"
DATE	APPR BY	DRAWING NUMBER / REV.
10-1-09	–	Lovington02.dwg / 0



DRAWING TITLE

FIGURE 7
CHLORIDE CONCENTRATION MAP
REFINING AREA
JUNE 16-19, 2009

NAVAJO REFINING CO.
LOVINGTON REFINERY
LEA COUNTY, NM

DRAWN BY	CHK'D BY	SCALE	
EJS	DB	1" = 300'-0"	
DATE	APPR BY	DRAWING NUMBER	REV.
10-1-09	-	Lovington02.dwg	0

XIII. APPENDICES

Appendix A

Water Level Measurements – New and Existing Monitor Wells

Appendix A. Water Level Summary, New and Existing Wells, Navajo Refining Company, Lovington Refinery

Monitor Well, Depth Below TOC (feet)	Elevation Top of Casing (TOC, feet)	Measure-ment Date	Depth to Product (feet)	Depth to Water Below TOC (feet)	Product Thickness (feet)	Corrected Depth to Water (feet)	Corrected Water Level Elev. (feet)	Saturated Water Thickness (ft)	Change from previous reading (ft)
MW-1	3,838.40	04/30/09	- -	106.35	0	106.35	3,732.05	22.8	- -
129.12		06/10/09	- -	106.49	0	106.49	3,731.91	22.6	-0.14
		06/19/09	- -	106.57	0	106.57	3,731.83	22.6	-0.08
		07/02/09	- -	106.74	0	106.74	3,731.66	22.4	-0.17
		07/24/09	- -	106.83	0	106.83	3,731.57	22.3	-0.09
		09/24/09	- -	107.31	0	107.31	3,731.09	21.8	-0.48
Note: Replacement well, drilled April 2009.									
MW-2	3,837.35	06/22/09	- -	104.32	0	104.32	3,733.03	22.1	- -
126.41									
Note: Replacement well, drilled April 2009.									
MW-3	3,831.65	06/18/09	- -	102.65	0	102.65	3,729.00	27.8	- -
130.45									
Note: Replacement well, drilled April 2009.									
MW-4	3,839.89	06/16/09	- -	106.79	0	106.79	3,733.10	21.2	- -
128.02									
Note: Replacement well, drilled April 2009.									
MW-5	3,819.15	06/16/09	- -	90.84	0	90.84	3,728.31	24.2	- -
115.00									
Note: Replacement well, drilled April 2009.									
MW-6	3,838.16	06/18/09	- -	106.64	0	106.64	3,731.52	23.1	- -
129.74		07/24/09	- -	106.92	0	106.92	3,731.24	22.8	-0.28
		09/24/09	- -	107.44	0	107.44	3,730.72	22.3	-0.52
Note: Replacement well, drilled April 2009.									

Appendix A. Water Level Summary, New and Existing Wells, Navajo Refining Company, Lovington Refinery

Monitor Well, Depth Below TOC (feet)	Elevation Top of Casing (TOC, feet)	Measure-ment Date	Depth to Product (feet)	Depth to Water Below TOC (feet)	Product Thickness (feet)	Corrected Depth to Water (feet)	Corrected Water Level Elev. (feet)	Saturated Water Thickness (ft)	Change from previous reading (ft)
MW-7	3,838.42	04/30/09	- -	106.37	0	106.37	3,732.05	23.2	- -
129.52		06/10/09	- -	106.48	0	106.48	3,731.94	23.0	-0.11
		06/19/09	- -	106.68	0	106.68	3,731.74	22.8	-0.20
		07/02/09	- -	106.75	0	106.75	3,731.67	22.8	-0.07
		07/24/09	- -	106.84	0	106.84	3,731.58	22.7	-0.09
		09/24/09	- -	107.33	0	107.33	3,731.09	22.2	-0.49
Note: Replacement well, drilled April 2009.									
MW-8	3,839.98	06/18/09	- -	109.37	0	109.37	3,730.61	22.9	- -
132.30									
Note: Replacement well, drilled April 2009.									
MW-9	3,835.22	06/16/09	- -	104.58	0	104.58	3,730.64	24.6	- -
129.18									
Note: Replacement well, drilled April 2009.									
MW-10	3,833.66	06/18/09	- -	102.57	0	102.57	3,731.09	26.6	- -
129.14									
Note: Replacement well, drilled April 2009.									
MW-11	3,839.56	06/20/02	- -	99.93	0	99.93	3,739.63	17.6	- -
117.51		09/17/02	- -	100.63	0	100.63	3,738.93	16.9	-0.70
		12/19/02	- -	100.50	0	100.50	3,739.06	17.0	0.13
		03/28/03	- -	99.74	0	99.74	3,739.82	17.8	0.76
		06/20/03	- -	100.76	0	100.76	3,738.80	16.8	-1.02
		09/15/03	- -	101.51	0	101.51	3,738.05	16.0	-0.75
		04/30/04	- -	102.31	0	102.31	3,737.25	15.2	-0.80
		02/21/05	- -	103.80	0	103.80	3,735.76	13.7	-1.49
		06/28/05	- -	104.33	0	104.33	3,735.23	13.2	-0.53
		09/30/05	- -	104.60	0	104.60	3,734.96	12.9	-0.27
		12/29/05	- -	104.81	0	104.81	3,734.75	12.7	-0.21
		04/10/06	- -	105.12	0	105.12	3,734.44	12.4	-0.31

Appendix A. Water Level Summary, New and Existing Wells, Navajo Refining Company, Lovington Refinery

Monitor Well, Depth Below TOC (feet)	Elevation Top of Casing (TOC, feet)	Measure-ment Date	Depth to Product (feet)	Depth to Water Below TOC (feet)	Product Thickness (feet)	Corrected Depth to Water (feet)	Corrected Water Level Elev. (feet)	Saturated Water Thickness (ft)	Change from previous reading (ft)
MW-11		07/06/06	--	105.61	0	105.61	3,733.95	11.9	-0.49
		01/26/07	--	106.63	0	106.63	3,732.93	10.9	-1.02
		03/27/07	--	106.80	0	106.80	3,732.76	10.7	-0.17
		07/13/07	--	106.94	0	106.94	3,732.62	10.6	-0.14
		09/12/07	--	107.22	0	107.22	3,732.34	10.3	-0.28
		12/31/07	--	106.74	0	106.74	3,732.82	10.8	0.48
		03/26/08	--	106.81	0	106.81	3,732.75	10.7	-0.07
		06/13/08	--	107.40	0	107.40	3,732.16	10.1	-0.59
		09/24/08	--	108.76	0	108.76	3,730.80	8.8	-1.36
		12/29/08	--	108.57	0	108.57	3,730.99	8.9	0.19
		03/17/09	--	107.91	0	107.91	3,731.65	9.6	0.66
		06/18/09	--	108.65	0	108.65	3,730.91	8.9	-0.74
MW-12	3,822.73	06/20/02	--	84.20	0	84.20	3,738.53	16.3	--
100.51		12/21/02	--	85.21	0	85.21	3,737.52	15.3	-1.01
		03/28/03	--	85.35	0	85.35	3,737.38	15.2	-0.14
		06/20/03	--	85.51	0	85.51	3,737.22	15.0	-0.16
		09/15/03	--	86.13	0	86.13	3,736.60	14.4	-0.62
		11/02/03	--	86.57	0	86.57	3,736.16	13.9	-0.44
		04/30/04	--	87.40	0	87.40	3,735.33	13.1	-0.83
		02/21/05	--	88.42	0	88.42	3,734.31	12.1	-1.02
		06/28/05	--	88.76	0	88.76	3,733.97	11.8	-0.34
		09/30/05	--	89.12	0	89.12	3,733.61	11.4	-0.36
		12/29/05	--	89.31	0	89.31	3,733.42	11.2	-0.19
		04/10/06	--	89.55	0	89.55	3,733.18	11.0	-0.24
		07/06/06	--	90.03	0	90.03	3,732.70	10.5	-0.48
		01/26/07	--	90.06	0	90.06	3,732.67	10.5	-0.03
		03/27/07	--	90.10	0	90.10	3,732.63	10.4	-0.04
		07/13/07	--	91.66	0	91.66	3,731.07	8.9	-1.56
		09/12/07	--	92.01	0	92.01	3,730.72	8.5	-0.35
		12/31/07	--	92.17	0	92.17	3,730.56	8.3	-0.16
		03/26/08	--	92.39	0	92.39	3,730.34	8.1	-0.22

Appendix A. Water Level Summary, New and Existing Wells, Navajo Refining Company, Lovington Refinery

Monitor Well, Depth Below TOC (feet)	Elevation Top of Casing (TOC, feet)	Measure-ment Date	Depth to Product (feet)	Depth to Water Below TOC (feet)	Product Thickness (feet)	Corrected Depth to Water (feet)	Corrected Water Level Elev. (feet)	Saturated Water Thickness (ft)	Change from previous reading (ft)
MW-12		06/13/08	- -	92.59	0	92.59	3,730.14	7.9	-0.20
		09/24/08	- -	93.21	0	93.21	3,729.52	7.3	-0.62
		12/29/08	- -	93.59	0	93.59	3,729.14	6.9	-0.38
		03/17/09	- -	93.75	0	93.75	3,728.98	6.8	-0.16
		06/16/09	- -	93.83	0	93.83	3,728.90	6.7	-0.08
MW-13	3,837.06	04/30/04	- -	101.41	0	101.41	3,735.65	18.3	- -
119.70		02/21/05	- -	103.09	0	103.09	3,733.97	16.6	-1.68
		06/28/05	- -	103.48	0	103.48	3,733.58	16.2	-0.39
		09/30/05	- -	103.80	0	103.80	3,733.26	15.9	-0.32
		12/29/05	- -	104.41	0	104.41	3,732.65	15.3	-0.61
		04/10/06	- -	104.59	0	104.59	3,732.47	15.1	-0.18
		07/06/06	- -	104.94	0	104.94	3,732.12	14.8	-0.35
		01/26/07	- -	106.41	0	106.41	3,730.65	13.3	-1.47
		03/27/07	- -	106.47	0	106.47	3,730.59	13.2	-0.06
		07/13/07	- -	106.93	0	106.93	3,730.13	12.8	-0.46
		09/12/07	- -	107.19	0	107.19	3,729.87	12.5	-0.26
		12/31/07	- -	106.71	0	106.71	3,730.35	13.0	0.48
		03/26/08	- -	107.02	0	107.02	3,730.04	12.7	-0.31
		06/13/08	- -	107.19	0	107.19	3,729.87	12.5	-0.17
		09/24/08	- -	108.56	0	108.56	3,728.50	11.1	-1.37
		12/29/08	- -	108.71	0	108.71	3,728.35	11.0	-0.15
		03/17/09	- -	108.36	0	108.36	3,728.70	11.3	0.35
		06/16/09	- -	108.58	0	108.58	3,728.48	11.1	-0.22
MW-14	3,823.03	04/30/04	- -	87.46	0	87.46	3,735.57	17.6	- -
105.04		02/21/05	- -	88.48	0	88.48	3,734.55	16.6	-1.02
		06/28/05	- -	88.80	0	88.80	3,734.23	16.2	-0.32
		09/30/05	- -	89.14	0	89.14	3,733.89	15.9	-0.34
		12/29/05	- -	89.34	0	89.34	3,733.69	15.7	-0.20
		04/10/06	- -	89.63	0	89.63	3,733.40	15.4	-0.29
		07/06/06	- -	90.08	0	90.08	3,732.95	15.0	-0.45

Appendix A. Water Level Summary, New and Existing Wells, Navajo Refining Company, Lovington Refinery

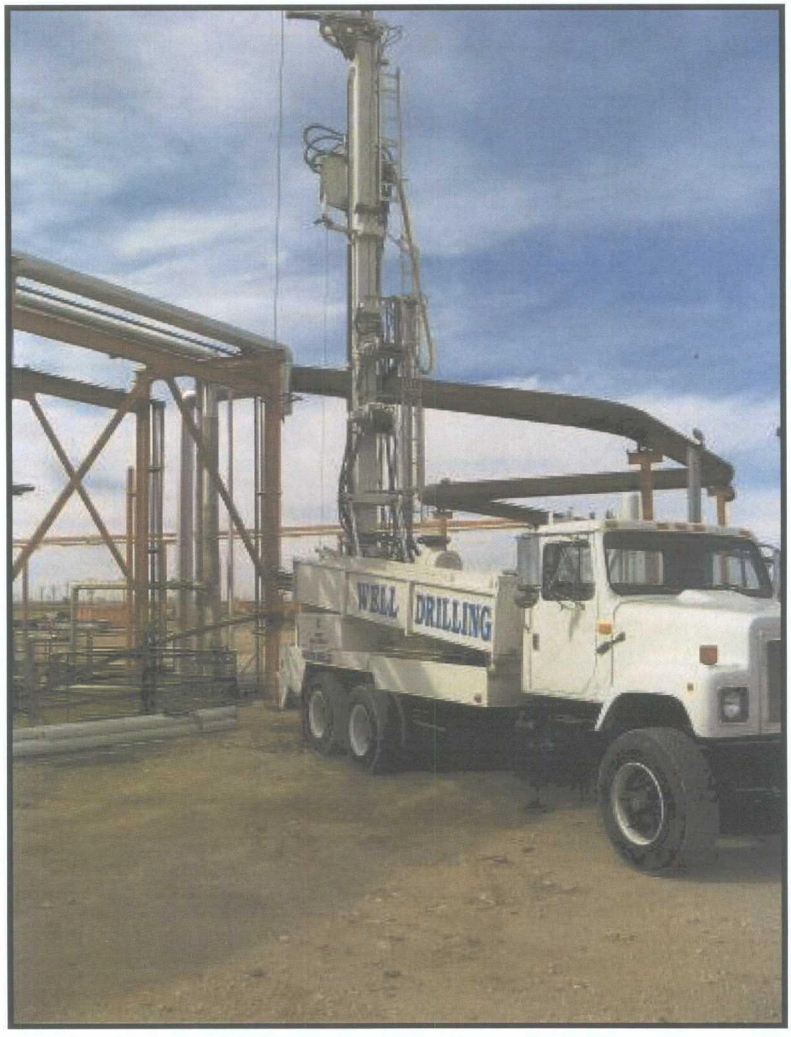
Monitor Well, Depth Below TOC (feet)	Elevation Top of Casing (TOC, feet)	Measure-ment Date	Depth to Product (feet)	Depth to Water Below TOC (feet)	Product Thickness (feet)	Corrected Depth to Water (feet)	Corrected Water Level Elev. (feet)	Saturated Water Thickness (ft)	Change from previous reading (ft)
MW-14		01/26/07	- -	91.02	0	91.02	3,732.01	14.0	-0.94
		03/27/07	- -	91.18	0	91.18	3,731.85	13.9	-0.16
		07/13/07	- -	91.68	0	91.68	3,731.35	13.4	-0.50
		09/12/07	- -	92.02	0	92.02	3,731.01	13.0	-0.34
		12/31/07	- -	92.25	0	92.25	3,730.78	12.8	-0.23
		03/26/08	- -	92.43	0	92.43	3,730.60	12.6	-0.18
		06/13/08	- -	92.64	0	92.64	3,730.39	12.4	-0.21
		12/29/08	- -	93.60	0	93.60	3,729.43	11.4	-0.96
		03/17/09	- -	93.84	0	93.84	3,729.19	11.2	-0.24
		06/16/09	- -	93.92	0	93.92	3,729.11	11.1	-0.08
RW-1	3,838.48	04/30/09	- -	106.45	0	106.45	3,732.03	22.9	- -
129.31		06/10/09	- -	106.59	0	106.59	3,731.89	22.7	-0.14
		06/19/09	- -	106.61	0	106.61	3,731.87	22.7	-0.02
		07/02/09	- -	106.82	0	106.82	3,731.66	22.5	-0.21
		07/24/09	- -	106.92	0	106.92	3,731.56	22.4	-0.10
		09/24/09	- -	107.42	0	107.42	3,731.06	21.9	-0.50
Note: Replacement well, drilled April 2009.									
Notes:									
1. Monitoring wells MW-1 through MW-7 installed September 1995; plugged and redrilled April 2009.									
2. Monitoring wells MW-8 through MW-10 installed March and April 1996; plugged and redrilled April 2009.									
3. Monitoring wells MW-6R, MW-11, MW-12 installed April and May 2002; MW-6R plugged April 2009.									
4. Monitoring wells MW-13 and MW-14 installed January 2004.									
5. Elevation survey of new and existing wells August 7, 2009. Earlier water level information corrected to current survey.									

Appendix B

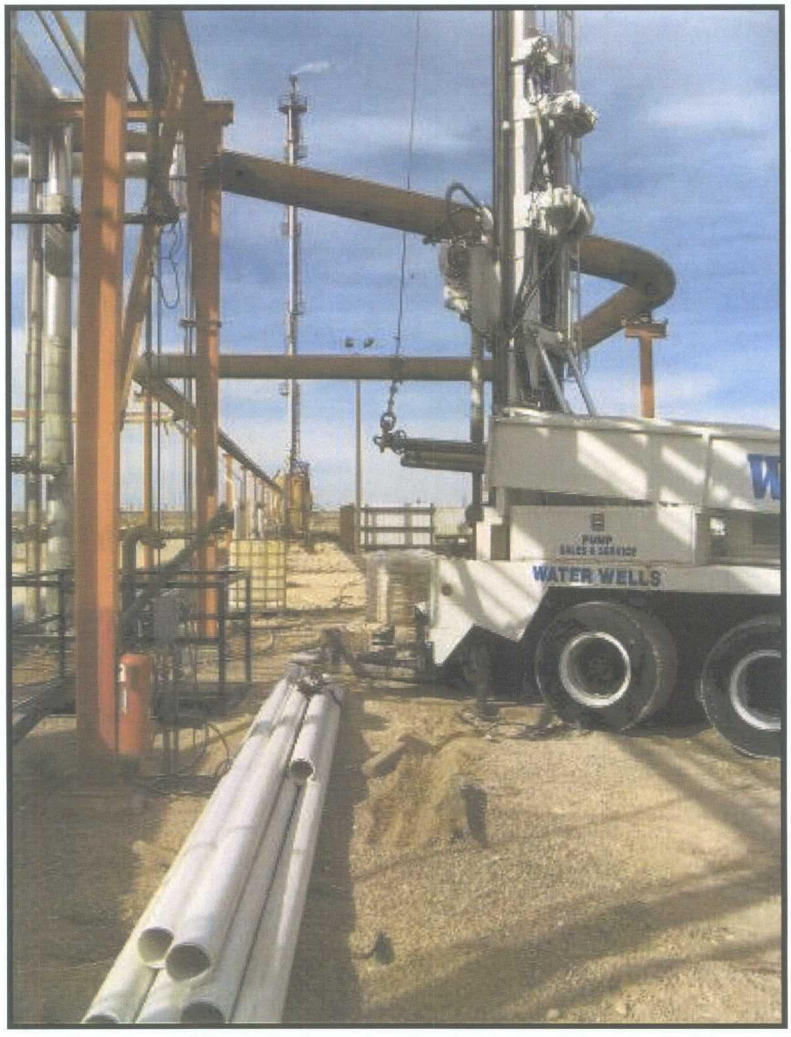
Site Photographs – Monitor Well Replacement

Looking northeast to refinery process area, April 2009.

Drill rig positioned next to wastewater separator, April 2009



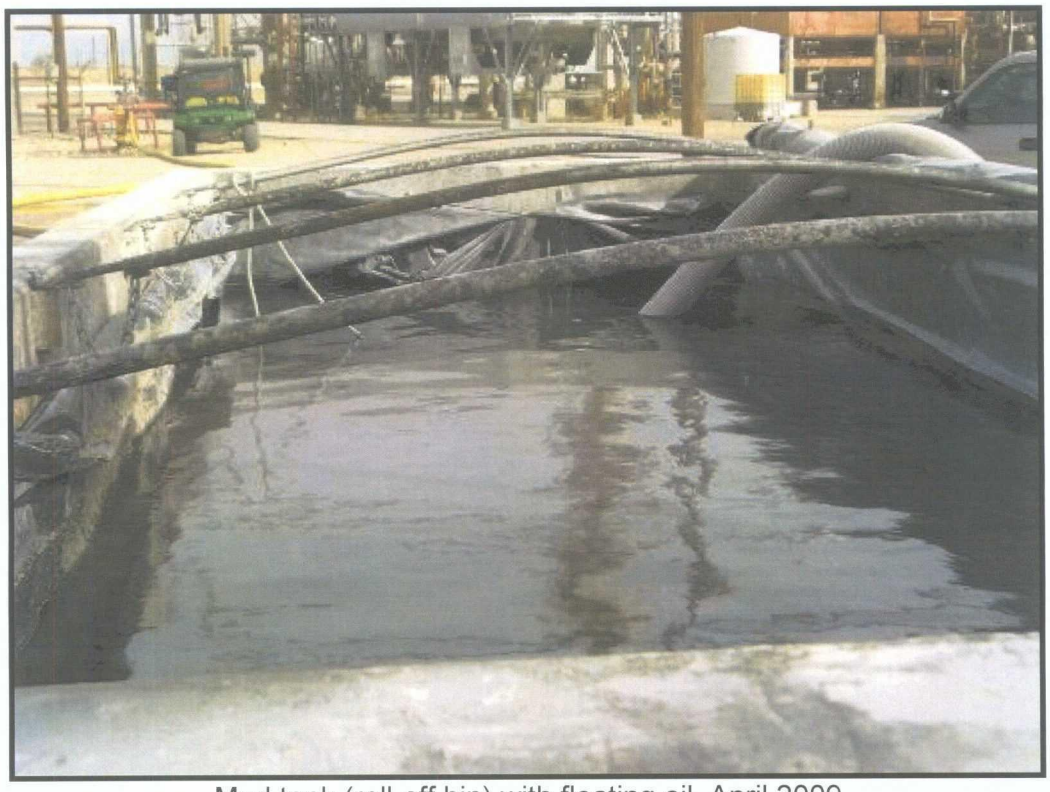
Drill rig positioned next to wastewater separator unit, April 2009



Drill rig positioned next to wastewater separator unit, April 2009

Drill rig and mud tank (plastic lined roll-off bin), April 2009

Mud tank (roll-off bin) with floating oil, April 2009

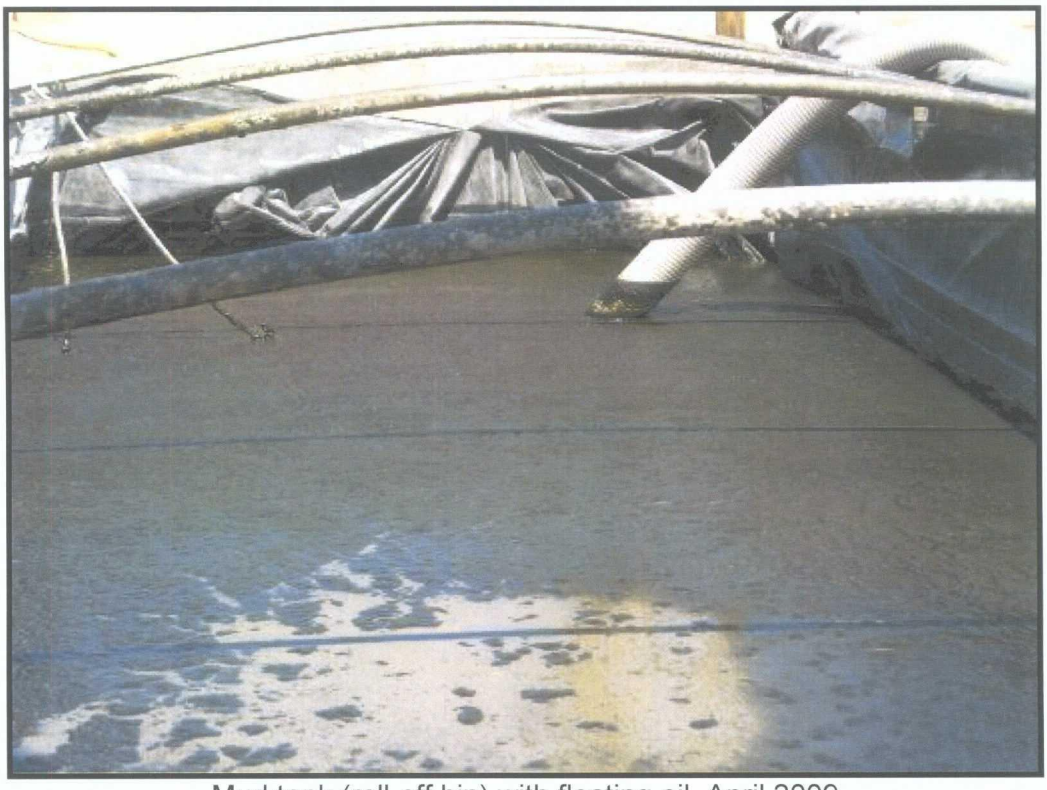


Mud tank (roll-off bin) with floating oil, April 2009

Cuttings separator box with oil and hydrocarbon sheen, April 2009

Cuttings separator box with oil, next to leak detection sump, April 2009

Cuttings separator box with oil, April 2009



Mud tank (roll-off bin) with floating oil, April 2009

Mud tank (roll-off bin) with floating oil, April 2009

Less oil with depth, April 2009

Mud tank (roll-off bin) with floating oil, April 2009

Gravel fines for well. Screen length 30 feet, gravel above screen for oil recovery, April 2009

View from drilling area to process area, April 2009

Appendix C

New and Existing Monitor Well Lithologic Logs
(to be provided)

Appendix D

Copies of Water Quality Sampling Analytical Reports

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

30-Jun-2009

Darrell Moore
Navajo Refining Company
PO Box 159
Artesia, NM 88211

Tel: (575) 746-5281
Fax: (505) 746-5421

Re: Navajo Lea Refinery Semi-Annual

Work Order: **0906452**

Dear Darrell,

ALS Laboratory Group received 10 samples on 17-Jun-2009 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 88.

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

ACCREDITED IN ACCORDANCE WITH nelac

Certificate No: T104704231-08-TX

ALS Laboratory Group

Date: 30-Jun-09

Client: Navajo Refining Company
Project: Navajo Refinery Semi-Annual
Work Order: **0906452**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
0906452-01	MW#5	Water		6/16/2009 09:20	6/17/2009 09:15	☐
0906452-02	MW#12	Water		6/16/2009 10:25	6/17/2009 09:15	☐
0906452-03	MW#14	Water		6/16/2009 11:15	6/17/2009 09:15	☐
0906452-04	MW#13	Water		6/16/2009 12:30	6/17/2009 09:15	☐
0906452-05	MW#4	Water		6/16/2009 13:20	6/17/2009 09:15	☐
0906452-06	MW#3	Water		6/16/2009 13:50	6/17/2009 09:15	☐
0906452-07	MW#9	Water		6/16/2009 14:20	6/17/2009 09:15	☐
0906452-08	MW#10	Water		6/16/2009 15:00	6/17/2009 09:15	☐
0906452-09	Trip Blank 2515	Water		6/16/2009 16:50	6/17/2009 09:15	☐
0906452-10	Trip Blank 2497	Water		6/16/2009 16:50	6/17/2009 09:15	☐

Client: Navajo Refining Company
Project: Navajo Refinery Semi-Annual
Work Order: 0906452

Case Narrative

Batch 36701 Metals MS/MSD is an unrelated sample.

Batch 36777 Mercury MS/MSD is an unrelated sample.

Batch R78404 Volatiles MS/MSD is an unrelated sample.

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW#5
Collection Date: 6/16/2009 09:20 AM

Work Order: 0906452
Lab ID: 0906452-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/24/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/24/2009 05:54 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/19/2009**	Analyst: **SKS**
Aluminum	**0.796**		**0.0200**	**mg/L**	1	6/23/2009 06:55 AM
Arsenic	**0.0233**		**0.00500**	**mg/L**	1	6/23/2009 06:55 AM
Barium	**0.0639**		**0.00500**	**mg/L**	1	6/23/2009 06:55 AM
Boron	**0.116**		**0.0200**	**mg/L**	1	6/23/2009 06:55 AM
Cadmium	ND		0.00200	mg/L	1	6/23/2009 06:55 AM
Calcium	**16.0**		**0.500**	**mg/L**	1	6/23/2009 06:55 AM
Chromium	ND		0.00500	mg/L	1	6/23/2009 06:55 AM
Cobalt	ND		0.00500	mg/L	1	6/23/2009 06:55 AM
Copper	ND		0.00500	mg/L	1	6/23/2009 06:55 AM
Iron	**0.399**		**0.200**	**mg/L**	1	6/23/2009 06:55 AM
Lead	ND		0.00500	mg/L	1	6/23/2009 06:55 AM
Magnesium	**3.11**		**0.200**	**mg/L**	1	6/23/2009 06:55 AM
Manganese	**0.00670**		**0.00500**	**mg/L**	1	6/23/2009 06:55 AM
Molybdenum	**0.0103**		**0.00500**	**mg/L**	1	6/23/2009 06:55 AM
Nickel	ND		0.00500	mg/L	1	6/23/2009 06:55 AM
Potassium	**3.05**		**0.200**	**mg/L**	1	6/23/2009 06:55 AM
Selenium	ND		0.00500	mg/L	1	6/23/2009 06:55 AM
Silver	ND		0.00500	mg/L	1	6/23/2009 06:55 AM
Sodium	**302**		**2.00**	**mg/L**	10	6/23/2009 05:19 PM
Zinc	ND		0.0100	mg/L	1	6/23/2009 06:55 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1,1'-Biphenyl	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	6/29/2009 09:05 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
2-Chlorophenol	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
2-Methylphenol	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
2-Nitroaniline	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
2-Nitrophenol	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
3&4-Methylphenol	ND		0.00020	mg/L	1	6/29/2009 09:05 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW#5
Collection Date: 6/16/2009 09:20 AM

Work Order: 0906452
Lab ID: 0906452-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
3-Nitroaniline	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
4-Chloroaniline	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
4-Nitroaniline	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
4-Nitrophenol	ND		0.0010	mg/L	1	6/29/2009 09:05 PM
Acenaphthene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Acenaphthylene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Acetophenone	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Anthracene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Atrazine	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Benzaldehyde	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Bis(2-ethylhexyl)phthalate	**0.00027**		**0.00020**	**mg/L**	1	6/29/2009 09:05 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Caprolactam	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Carbazole	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Chrysene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Di-n-butyl phthalate	**0.00045**		**0.00020**	**mg/L**	1	6/29/2009 09:05 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Dibenzofuran	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Diethyl phthalate	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Fluoranthene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Fluorene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Hexachloroethane	ND		0.00020	mg/L	1	6/29/2009 09:05 PM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 0906452
Sample ID: MW#5 **Lab ID:** 0906452-01
Collection Date: 6/16/2009 09:20 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Isophorone	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Naphthalene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Nitrobenzene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Pentachlorophenol	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Phenanthrene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Phenol	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Pyrene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Surr: 2,4,6-Tribromophenol	*57.4*		*34-129*	*%REC*	1	6/29/2009 09:05 PM
Surr: 2-Fluorobiphenyl	*64.7*		*40-125*	*%REC*	1	6/29/2009 09:05 PM
Surr: 2-Fluorophenol	*56.2*		*20-120*	*%REC*	1	6/29/2009 09:05 PM
Surr: 4-Terphenyl-d14	*61.9*		*40-135*	*%REC*	1	6/29/2009 09:05 PM
Surr: Nitrobenzene-d5	*54.3*		*41-120*	*%REC*	1	6/29/2009 09:05 PM
Surr: Phenol-d6	*58.9*		*20-120*	*%REC*	1	6/29/2009 09:05 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1-Methylnaphthalene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
2-Butanone	ND		0.010	mg/L	1	6/23/2009 09:21 PM
2-Hexanone	ND		0.010	mg/L	1	6/23/2009 09:21 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/23/2009 09:21 PM
Acetone	ND		0.010	mg/L	1	6/23/2009 09:21 PM
Benzene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Bromoform	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Bromomethane	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Carbon disulfide	ND		0.010	mg/L	1	6/23/2009 09:21 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#5
Lab ID: 0906452-01
Collection Date: 6/16/2009 09:20 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Chloroethane	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Chloroform	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Chloromethane	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
m,p-Xylene	ND		0.010	mg/L	1	6/23/2009 09:21 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Methylene chloride	ND		0.010	mg/L	1	6/23/2009 09:21 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Naphthalene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
o-Xylene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Styrene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Toluene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Trichloroethene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/23/2009 09:21 PM
Xylenes, Total	ND		0.015	mg/L	1	6/23/2009 09:21 PM
Surr: 1,2-Dichloroethane-d4	*106*		*70-125*	*%REC*	1	6/23/2009 09:21 PM
Surr: 4-Bromofluorobenzene	*115*		*72-125*	*%REC*	1	6/23/2009 09:21 PM
Surr: Dibromofluoromethane	*99.3*		*71-125*	*%REC*	1	6/23/2009 09:21 PM
Surr: Toluene-d8	*101*		*75-125*	*%REC*	1	6/23/2009 09:21 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**186**		**5.00**	**mg/L**	10	6/22/2009 06:42 PM
Fluoride	**1.39**		**0.100**	**mg/L**	1	6/22/2009 12:07 PM
Sulfate	**131**		**5.00**	**mg/L**	10	6/22/2009 06:42 PM
Nitrate/Nitrite (as N)	**3.31**		**0.500**	**mg/L**	5	6/19/2009 05:48 PM
Surr: Selenate (surr)	*95.3*		*85-115*	*%REC*	10	6/22/2009 06:42 PM
Surr: Selenate (surr)	*93.9*		*85-115*	*%REC*	1	6/22/2009 12:07 PM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	5	6/19/2009 05:48 PM
ALKALINITY			**SM2320B**			Analyst: **TDW**

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#5
Lab ID: 0906452-01
Collection Date: 6/16/2009 09:20 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**323**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Total (As CaCO3)	**323**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**1,820**		**1.00**	**µmhos/cm**	1	6/17/2009 05:00 PM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.82**	H	**0.100**	**pH units**	1	6/17/2009 03:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**952**		**10.0**	**mg/L**	1	6/19/2009 11:00 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#12
Lab ID: 0906452-02
Collection Date: 6/16/2009 10:25 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/24/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/24/2009 05:56 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/19/2009**	Analyst: **SKS**
Aluminum	ND		0.0200	mg/L	1	6/23/2009 07:02 AM
Arsenic	**0.00516**		**0.00500**	**mg/L**	1	6/23/2009 07:02 AM
Barium	**0.0775**		**0.00500**	**mg/L**	1	6/23/2009 07:02 AM
Boron	**0.200**		**0.0200**	**mg/L**	1	6/23/2009 07:02 AM
Cadmium	ND		0.00200	mg/L	1	6/23/2009 07:02 AM
Calcium	**62.4**		**0.500**	**mg/L**	1	6/23/2009 07:02 AM
Chromium	ND		0.00500	mg/L	1	6/23/2009 07:02 AM
Cobalt	ND		0.00500	mg/L	1	6/23/2009 07:02 AM
Copper	ND		0.00500	mg/L	1	6/23/2009 07:02 AM
Iron	ND		0.200	mg/L	1	6/23/2009 07:02 AM
Lead	ND		0.00500	mg/L	1	6/23/2009 07:02 AM
Magnesium	**5.90**		**0.200**	**mg/L**	1	6/23/2009 07:02 AM
Manganese	ND		0.00500	mg/L	1	6/23/2009 07:02 AM
Molybdenum	ND		0.00500	mg/L	1	6/23/2009 07:02 AM
Nickel	ND		0.00500	mg/L	1	6/23/2009 07:02 AM
Potassium	**1.96**		**0.200**	**mg/L**	1	6/23/2009 07:02 AM
Selenium	ND		0.00500	mg/L	1	6/23/2009 07:02 AM
Silver	ND		0.00500	mg/L	1	6/23/2009 07:02 AM
Sodium	**40.2**		**0.200**	**mg/L**	1	6/23/2009 07:02 AM
Zinc	ND		0.0100	mg/L	1	6/23/2009 07:02 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1,1'-Biphenyl	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	6/29/2009 09:26 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
2-Chlorophenol	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
2-Methylphenol	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
2-Nitroaniline	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
2-Nitrophenol	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
3&4-Methylphenol	ND		0.00020	mg/L	1	6/29/2009 09:26 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#12
Lab ID: 0906452-02
Collection Date: 6/16/2009 10:25 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
3-Nitroaniline	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
4-Chloroaniline	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
4-Nitroaniline	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
4-Nitrophenol	ND		0.0010	mg/L	1	6/29/2009 09:26 PM
Acenaphthene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Acenaphthylene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Acetophenone	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Anthracene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Atrazine	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Benzaldehyde	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Bis(2-ethylhexyl)phthalate	**0.0027**		**0.00020**	**mg/L**	1	6/29/2009 09:26 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Caprolactam	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Carbazole	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Chrysene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Dibenzofuran	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Diethyl phthalate	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Fluoranthene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Fluorene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Hexachloroethane	ND		0.00020	mg/L	1	6/29/2009 09:26 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#12
Lab ID: 0906452-02
Collection Date: 6/16/2009 10:25 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Isophorone	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Naphthalene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Nitrobenzene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Pentachlorophenol	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Phenanthrene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Phenol	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Pyrene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Surr: 2,4,6-Tribromophenol	*68.7*		*34-129*	*%REC*	1	6/29/2009 09:26 PM
Surr: 2-Fluorobiphenyl	*68.6*		*40-125*	*%REC*	1	6/29/2009 09:26 PM
Surr: 2-Fluorophenol	*60.4*		*20-120*	*%REC*	1	6/29/2009 09:26 PM
Surr: 4-Terphenyl-d14	*64.2*		*40-135*	*%REC*	1	6/29/2009 09:26 PM
Surr: Nitrobenzene-d5	*54.7*		*41-120*	*%REC*	1	6/29/2009 09:26 PM
Surr: Phenol-d6	*60.1*		*20-120*	*%REC*	1	6/29/2009 09:26 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1-Methylnaphthalene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
2-Butanone	ND		0.010	mg/L	1	6/24/2009 11:49 AM
2-Hexanone	ND		0.010	mg/L	1	6/24/2009 11:49 AM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/24/2009 11:49 AM
Acetone	ND		0.010	mg/L	1	6/24/2009 11:49 AM
Benzene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Bromodichloromethane	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Bromoform	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Bromomethane	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Carbon disulfide	ND		0.010	mg/L	1	6/24/2009 11:49 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#12
Lab ID: 0906452-02
Collection Date: 6/16/2009 10:25 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Chlorobenzene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Chloroethane	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Chloroform	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Chloromethane	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Dibromochloromethane	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Ethylbenzene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Isopropylbenzene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
m,p-Xylene	ND		0.010	mg/L	1	6/24/2009 11:49 AM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Methylene chloride	ND		0.010	mg/L	1	6/24/2009 11:49 AM
n-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
n-Propylbenzene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Naphthalene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
o-Xylene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Styrene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Tetrachloroethene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Toluene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Trichloroethene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Vinyl chloride	ND		0.0020	mg/L	1	6/24/2009 11:49 AM
Xylenes, Total	ND		0.015	mg/L	1	6/24/2009 11:49 AM
Surr: 1,2-Dichloroethane-d4	*109*		*70-125*	*%REC*	1	6/24/2009 11:49 AM
Surr: 4-Bromofluorobenzene	*109*		*72-125*	*%REC*	1	6/24/2009 11:49 AM
Surr: Dibromofluoromethane	*105*		*71-125*	*%REC*	1	6/24/2009 11:49 AM
Surr: Toluene-d8	*107*		*75-125*	*%REC*	1	6/24/2009 11:49 AM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**23.0**		**0.500**	**mg/L**	1	6/22/2009 12:31 PM
Fluoride	**1.16**		**0.100**	**mg/L**	1	6/22/2009 12:31 PM
Sulfate	**49.6**		**0.500**	**mg/L**	1	6/22/2009 12:31 PM
Nitrate/Nitrite (as N)	**1.98**		**0.500**	**mg/L**	5	6/19/2009 06:58 PM
Surr: Selenate (surr)	*97.7*		*85-115*	*%REC*	5	6/19/2009 06:58 PM
Surr: Selenate (surr)	*93.5*		*85-115*	*%REC*	1	6/22/2009 12:31 PM
ALKALINITY			**SM2320B**			Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	**165**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#12
Lab ID: 0906452-02
Collection Date: 6/16/2009 10:25 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Total (As CaCO3)	**165**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**663**		**1.00**	**µmhos/cm**	1	6/17/2009 05:00 PM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**6.69**	H	**0.100**	**pH units**	1	6/17/2009 03:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**354**		**10.0**	**mg/L**	1	6/19/2009 11:00 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#14
Lab ID: 0906452-03
Collection Date: 6/16/2009 11:15 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/24/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/24/2009 05:58 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/19/2009**	Analyst: **SKS**
Aluminum	ND		0.0200	mg/L	1	6/23/2009 07:08 AM
Arsenic	ND		0.00500	mg/L	1	6/23/2009 07:08 AM
Barium	**0.0770**		**0.00500**	**mg/L**	1	6/23/2009 07:08 AM
Boron	**0.132**		**0.0200**	**mg/L**	1	6/23/2009 07:08 AM
Cadmium	ND		0.00200	mg/L	1	6/23/2009 07:08 AM
Calcium	**89.8**		**0.500**	**mg/L**	1	6/23/2009 07:08 AM
Chromium	ND		0.00500	mg/L	1	6/23/2009 07:08 AM
Cobalt	ND		0.00500	mg/L	1	6/23/2009 07:08 AM
Copper	ND		0.00500	mg/L	1	6/23/2009 07:08 AM
Iron	ND		0.200	mg/L	1	6/23/2009 07:08 AM
Lead	ND		0.00500	mg/L	1	6/23/2009 07:08 AM
Magnesium	**11.3**		**0.200**	**mg/L**	1	6/23/2009 07:08 AM
Manganese	**0.0199**		**0.00500**	**mg/L**	1	6/23/2009 07:08 AM
Molybdenum	**0.0215**		**0.00500**	**mg/L**	1	6/23/2009 07:08 AM
Nickel	ND		0.00500	mg/L	1	6/23/2009 07:08 AM
Potassium	**3.09**		**0.200**	**mg/L**	1	6/23/2009 07:08 AM
Selenium	ND		0.00500	mg/L	1	6/23/2009 07:08 AM
Silver	ND		0.00500	mg/L	1	6/23/2009 07:08 AM
Sodium	**25.7**		**0.200**	**mg/L**	1	6/23/2009 07:08 AM
Zinc	**0.0255**		**0.0100**	**mg/L**	1	6/23/2009 07:08 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1,1'-Biphenyl	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	6/30/2009 02:33 AM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
2-Chloronaphthalene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
2-Chlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
2-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
2-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
2-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
2-Nitrophenol	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
3&4-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 02:33 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW#14
Collection Date: 6/16/2009 11:15 AM

Work Order: 0906452
Lab ID: 0906452-03
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
3-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
4-Chloroaniline	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
4-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
4-Nitrophenol	ND		0.0010	mg/L	1	6/30/2009 02:33 AM
Acenaphthene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Acenaphthylene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Acetophenone	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Anthracene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Atrazine	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Benz(a)anthracene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Benzaldehyde	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Benzo(a)pyrene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Bis(2-ethylhexyl)phthalate	**0.0071**		**0.00020**	**mg/L**	1	6/30/2009 02:33 AM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Caprolactam	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Carbazole	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Chrysene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Dibenzofuran	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Diethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Dimethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Fluoranthene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Fluorene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Hexachlorobenzene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Hexachlorobutadiene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Hexachloroethane	ND		0.00020	mg/L	1	6/30/2009 02:33 AM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 0906452
Sample ID: MW#14 **Lab ID:** 0906452-03
Collection Date: 6/16/2009 11:15 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Isophorone	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Naphthalene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Nitrobenzene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Pentachlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Phenanthrene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Phenol	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Pyrene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Surr: 2,4,6-Tribromophenol	*68.1*		*34-129*	*%REC*	1	6/30/2009 02:33 AM
Surr: 2-Fluorobiphenyl	*65.7*		*40-125*	*%REC*	1	6/30/2009 02:33 AM
Surr: 2-Fluorophenol	*56.9*		*20-120*	*%REC*	1	6/30/2009 02:33 AM
Surr: 4-Terphenyl-d14	*62.4*		*40-135*	*%REC*	1	6/30/2009 02:33 AM
Surr: Nitrobenzene-d5	*53.7*		*41-120*	*%REC*	1	6/30/2009 02:33 AM
Surr: Phenol-d6	*58.2*		*20-120*	*%REC*	1	6/30/2009 02:33 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
2-Butanone	ND		0.010	mg/L	1	6/24/2009 04:29 PM
2-Hexanone	ND		0.010	mg/L	1	6/24/2009 04:29 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/24/2009 04:29 PM
Acetone	ND		0.010	mg/L	1	6/24/2009 04:29 PM
Benzene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Bromoform	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Bromomethane	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Carbon disulfide	ND		0.010	mg/L	1	6/24/2009 04:29 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW#14
Collection Date: 6/16/2009 11:15 AM

Work Order: 0906452
Lab ID: 0906452-03
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Chloroethane	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Chloroform	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Chloromethane	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
m,p-Xylene	ND		0.010	mg/L	1	6/24/2009 04:29 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Methylene chloride	ND		0.010	mg/L	1	6/24/2009 04:29 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Naphthalene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
o-Xylene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Styrene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Toluene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Trichloroethene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/24/2009 04:29 PM
Xylenes, Total	ND		0.015	mg/L	1	6/24/2009 04:29 PM
Surr: 1,2-Dichloroethane-d4	*113*		*70-125*	*%REC*	1	6/24/2009 04:29 PM
Surr: 4-Bromofluorobenzene	*92.4*		*72-125*	*%REC*	1	6/24/2009 04:29 PM
Surr: Dibromofluoromethane	*112*		*71-125*	*%REC*	1	6/24/2009 04:29 PM
Surr: Toluene-d8	*102*		*75-125*	*%REC*	1	6/24/2009 04:29 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**93.0**		**5.00**	**mg/L**	10	6/22/2009 08:39 PM
Fluoride	**0.851**		**0.100**	**mg/L**	1	6/22/2009 12:54 PM
Sulfate	**60.9**		**5.00**	**mg/L**	10	6/22/2009 08:39 PM
Nitrate/Nitrite (as N)	**5.16**		**0.500**	**mg/L**	5	6/19/2009 07:21 PM
Surr: Selenate (surr)	*94.8*		*85-115*	*%REC*	10	6/22/2009 08:39 PM
Surr: Selenate (surr)	*94.0*		*85-115*	*%REC*	1	6/22/2009 12:54 PM
Surr: Selenate (surr)	*103*		*85-115*	*%REC*	5	6/19/2009 07:21 PM
ALKALINITY			**SM2320B**			Analyst: **TDW**

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#14
Lab ID: 0906452-03
Collection Date: 6/16/2009 11:15 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**162**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Total (As CaCO3)	**162**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**888**		**1.00**	**µmhos/cm**	1	6/17/2009 05:00 PM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**6.89**	H	**0.100**	**pH units**	1	6/17/2009 03:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**540**		**10.0**	**mg/L**	1	6/19/2009 11:00 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW#13
Collection Date: 6/16/2009 12:30 PM

Work Order: 0906452
Lab ID: 0906452-04
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/24/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/24/2009 06:00 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/19/2009**	Analyst: **SKS**
Aluminum	ND		0.0200	mg/L	1	6/23/2009 07:14 AM
Arsenic	ND		0.00500	mg/L	1	6/23/2009 07:14 AM
Barium	**0.0692**		**0.00500**	**mg/L**	1	6/23/2009 07:14 AM
Boron	**0.253**		**0.0200**	**mg/L**	1	6/23/2009 07:14 AM
Cadmium	ND		0.00200	mg/L	1	6/23/2009 07:14 AM
Calcium	**297**		**5.00**	**mg/L**	10	6/23/2009 05:25 PM
Chromium	**0.0106**		**0.00500**	**mg/L**	1	6/23/2009 07:14 AM
Cobalt	**0.0285**		**0.00500**	**mg/L**	1	6/23/2009 07:14 AM
Copper	ND		0.00500	mg/L	1	6/23/2009 07:14 AM
Iron	ND		0.200	mg/L	1	6/23/2009 07:14 AM
Lead	ND		0.00500	mg/L	1	6/23/2009 07:14 AM
Magnesium	**34.9**		**0.200**	**mg/L**	1	6/23/2009 07:14 AM
Manganese	**0.0176**		**0.00500**	**mg/L**	1	6/23/2009 07:14 AM
Molybdenum	ND		0.00500	mg/L	1	6/23/2009 07:14 AM
Nickel	**0.0126**		**0.00500**	**mg/L**	1	6/23/2009 07:14 AM
Potassium	**4.48**		**0.200**	**mg/L**	1	6/23/2009 07:14 AM
Selenium	ND		0.00500	mg/L	1	6/23/2009 07:14 AM
Silver	ND		0.00500	mg/L	1	6/23/2009 07:14 AM
Sodium	**95.0**		**0.200**	**mg/L**	1	6/23/2009 07:14 AM
Zinc	**0.0269**		**0.0100**	**mg/L**	1	6/23/2009 07:14 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1,1'-Biphenyl	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	6/30/2009 02:55 AM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
2-Chloronaphthalene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
2-Chlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
2-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
2-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
2-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
2-Nitrophenol	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
3&4-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 02:55 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#13
Lab ID: 0906452-04
Collection Date: 6/16/2009 12:30 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
3-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
4-Chloroaniline	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
4-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
4-Nitrophenol	ND		0.0010	mg/L	1	6/30/2009 02:55 AM
Acenaphthene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Acenaphthylene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Acetophenone	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Anthracene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Atrazine	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Benz(a)anthracene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Benzaldehyde	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Benzo(a)pyrene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Bis(2-ethylhexyl)phthalate	**0.0031**		**0.00020**	**mg/L**	1	6/30/2009 02:55 AM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Caprolactam	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Carbazole	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Chrysene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Dibenzofuran	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Diethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Dimethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Fluoranthene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Fluorene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Hexachlorobenzene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Hexachlorobutadiene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Hexachloroethane	ND		0.00020	mg/L	1	6/30/2009 02:55 AM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 0906452
Sample ID: MW#13 **Lab ID:** 0906452-04
Collection Date: 6/16/2009 12:30 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Isophorone	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Naphthalene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Nitrobenzene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Pentachlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Phenanthrene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Phenol	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Pyrene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Surr: 2,4,6-Tribromophenol	*58.3*		*34-129*	*%REC*	1	6/30/2009 02:55 AM
Surr: 2-Fluorobiphenyl	*65.8*		*40-125*	*%REC*	1	6/30/2009 02:55 AM
Surr: 2-Fluorophenol	*49.3*		*20-120*	*%REC*	1	6/30/2009 02:55 AM
Surr: 4-Terphenyl-d14	*57.6*		*40-135*	*%REC*	1	6/30/2009 02:55 AM
Surr: Nitrobenzene-d5	*52.0*		*41-120*	*%REC*	1	6/30/2009 02:55 AM
Surr: Phenol-d6	*52.6*		*20-120*	*%REC*	1	6/30/2009 02:55 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
2-Butanone	ND		0.010	mg/L	1	6/24/2009 05:46 PM
2-Hexanone	ND		0.010	mg/L	1	6/24/2009 05:46 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/24/2009 05:46 PM
Acetone	ND		0.010	mg/L	1	6/24/2009 05:46 PM
Benzene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Bromoform	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Bromomethane	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Carbon disulfide	ND		0.010	mg/L	1	6/24/2009 05:46 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#13
Lab ID: 0906452-04
Collection Date: 6/16/2009 12:30 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Chloroethane	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Chloroform	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Chloromethane	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
m,p-Xylene	ND		0.010	mg/L	1	6/24/2009 05:46 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Methylene chloride	ND		0.010	mg/L	1	6/24/2009 05:46 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Naphthalene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
o-Xylene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Styrene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Toluene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Trichloroethene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/24/2009 05:46 PM
Xylenes, Total	ND		0.015	mg/L	1	6/24/2009 05:46 PM
Surr: 1,2-Dichloroethane-d4	*110*		*70-125*	*%REC*	1	6/24/2009 05:46 PM
Surr: 4-Bromofluorobenzene	*98.5*		*72-125*	*%REC*	1	6/24/2009 05:46 PM
Surr: Dibromofluoromethane	*107*		*71-125*	*%REC*	1	6/24/2009 05:46 PM
Surr: Toluene-d8	*101*		*75-125*	*%REC*	1	6/24/2009 05:46 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**425**		**10.0**	**mg/L**	20	6/22/2009 09:02 PM
Fluoride	**0.220**		**0.100**	**mg/L**	1	6/22/2009 01:17 PM
Sulfate	**138**		**10.0**	**mg/L**	20	6/22/2009 09:02 PM
Nitrate/Nitrite (as N)	**2.65**		**0.500**	**mg/L**	5	6/19/2009 07:44 PM
Surr: Selenate (surr)	*95.3*		*85-115*	*%REC*	20	6/22/2009 09:02 PM
Surr: Selenate (surr)	*95.5*		*85-115*	*%REC*	1	6/22/2009 01:17 PM
Surr: Selenate (surr)	*103*		*85-115*	*%REC*	5	6/19/2009 07:44 PM
ALKALINITY			**SM2320B**			Analyst: **TDW**

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#13
Lab ID: 0906452-04
Collection Date: 6/16/2009 12:30 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**334**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Total (As CaCO3)	**334**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**2,520**		**1.00**	**µmhos/cm**	1	6/17/2009 05:00 PM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**6.44**	H	**0.100**	**pH units**	1	6/17/2009 03:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**1,790**		**10.0**	**mg/L**	1	6/19/2009 11:00 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW#4
Collection Date: 6/16/2009 01:20 PM

Work Order: 0906452
Lab ID: 0906452-05
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/24/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/24/2009 06:02 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/19/2009**	Analyst: **SKS**
Aluminum	**0.180**		**0.0200**	**mg/L**	1	6/23/2009 07:20 AM
Arsenic	ND		0.00500	mg/L	1	6/23/2009 07:20 AM
Barium	**0.174**		**0.00500**	**mg/L**	1	6/23/2009 07:20 AM
Boron	**0.160**		**0.0200**	**mg/L**	1	6/23/2009 07:20 AM
Cadmium	ND		0.00200	mg/L	1	6/23/2009 07:20 AM
Calcium	**46.3**		**0.500**	**mg/L**	1	6/23/2009 07:20 AM
Chromium	**0.00534**		**0.00500**	**mg/L**	1	6/23/2009 07:20 AM
Cobalt	ND		0.00500	mg/L	1	6/23/2009 07:20 AM
Copper	ND		0.00500	mg/L	1	6/23/2009 07:20 AM
Iron	ND		0.200	mg/L	1	6/23/2009 07:20 AM
Lead	ND		0.00500	mg/L	1	6/23/2009 07:20 AM
Magnesium	**7.48**		**0.200**	**mg/L**	1	6/23/2009 07:20 AM
Manganese	ND		0.00500	mg/L	1	6/23/2009 07:20 AM
Molybdenum	ND		0.00500	mg/L	1	6/23/2009 07:20 AM
Nickel	ND		0.00500	mg/L	1	6/23/2009 07:20 AM
Potassium	**2.47**		**0.200**	**mg/L**	1	6/23/2009 07:20 AM
Selenium	ND		0.00500	mg/L	1	6/23/2009 07:20 AM
Silver	ND		0.00500	mg/L	1	6/23/2009 07:20 AM
Sodium	**64.1**		**0.200**	**mg/L**	1	6/23/2009 07:20 AM
Zinc	**0.0120**		**0.0100**	**mg/L**	1	6/23/2009 07:20 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1,1'-Biphenyl	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	6/30/2009 03:16 AM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
2-Chloronaphthalene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
2-Chlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
2-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
2-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
2-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
2-Nitrophenol	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
3&4-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 03:16 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW#4
Collection Date: 6/16/2009 01:20 PM

Work Order: 0906452
Lab ID: 0906452-05
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
3-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
4-Chloroaniline	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
4-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
4-Nitrophenol	ND		0.0010	mg/L	1	6/30/2009 03:16 AM
Acenaphthene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Acenaphthylene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Acetophenone	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Anthracene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Atrazine	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Benz(a)anthracene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Benzaldehyde	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Benzo(a)pyrene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Bis(2-ethylhexyl)phthalate	**0.0020**		**0.00020**	**mg/L**	1	6/30/2009 03:16 AM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Caprolactam	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Carbazole	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Chrysene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Dibenzofuran	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Diethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Dimethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Fluoranthene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Fluorene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Hexachlorobenzene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Hexachlorobutadiene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Hexachloroethane	ND		0.00020	mg/L	1	6/30/2009 03:16 AM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 0906452
Sample ID: MW#4 **Lab ID:** 0906452-05
Collection Date: 6/16/2009 01:20 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Isophorone	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Naphthalene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Nitrobenzene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Pentachlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Phenanthrene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Phenol	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Pyrene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Surr: 2,4,6-Tribromophenol	*63.3*		*34-129*	*%REC*	1	6/30/2009 03:16 AM
Surr: 2-Fluorobiphenyl	*70.6*		*40-125*	*%REC*	1	6/30/2009 03:16 AM
Surr: 2-Fluorophenol	*59.3*		*20-120*	*%REC*	1	6/30/2009 03:16 AM
Surr: 4-Terphenyl-d14	*61.3*		*40-135*	*%REC*	1	6/30/2009 03:16 AM
Surr: Nitrobenzene-d5	*57.5*		*41-120*	*%REC*	1	6/30/2009 03:16 AM
Surr: Phenol-d6	*60.9*		*20-120*	*%REC*	1	6/30/2009 03:16 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
2-Butanone	ND		0.010	mg/L	1	6/24/2009 06:11 PM
2-Hexanone	ND		0.010	mg/L	1	6/24/2009 06:11 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/24/2009 06:11 PM
Acetone	ND		0.010	mg/L	1	6/24/2009 06:11 PM
Benzene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Bromoform	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Bromomethane	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Carbon disulfide	ND		0.010	mg/L	1	6/24/2009 06:11 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#4
Lab ID: 0906452-05
Collection Date: 6/16/2009 01:20 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Chloroethane	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Chloroform	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Chloromethane	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
m,p-Xylene	ND		0.010	mg/L	1	6/24/2009 06:11 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Methylene chloride	ND		0.010	mg/L	1	6/24/2009 06:11 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Naphthalene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
o-Xylene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Styrene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Toluene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Trichloroethene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/24/2009 06:11 PM
Xylenes, Total	ND		0.015	mg/L	1	6/24/2009 06:11 PM
Surr: 1,2-Dichloroethane-d4	*108*		*70-125*	*%REC*	1	6/24/2009 06:11 PM
Surr: 4-Bromofluorobenzene	*96.6*		*72-125*	*%REC*	1	6/24/2009 06:11 PM
Surr: Dibromofluoromethane	*104*		*71-125*	*%REC*	1	6/24/2009 06:11 PM
Surr: Toluene-d8	*104*		*75-125*	*%REC*	1	6/24/2009 06:11 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**28.9**		**0.500**	**mg/L**	1	6/22/2009 01:40 PM
Fluoride	**0.841**		**0.100**	**mg/L**	1	6/22/2009 01:40 PM
Sulfate	**61.5**		**2.50**	**mg/L**	5	6/22/2009 09:25 PM
Nitrate/Nitrite (as N)	**1.84**		**0.500**	**mg/L**	5	6/19/2009 08:07 PM
Surr: Selenate (surr)	*95.8*		*85-115*	*%REC*	5	6/22/2009 09:25 PM
Surr: Selenate (surr)	*95.1*		*85-115*	*%REC*	1	6/22/2009 01:40 PM
Surr: Selenate (surr)	*103*		*85-115*	*%REC*	5	6/19/2009 08:07 PM
ALKALINITY			**SM2320B**			Analyst: **TDW**

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#4
Lab ID: 0906452-05
Collection Date: 6/16/2009 01:20 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**170**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Total (As CaCO3)	**170**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**704**		**1.00**	**µmhos/cm**	1	6/17/2009 05:00 PM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.30**	H	**0.100**	**pH units**	1	6/17/2009 03:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**422**		**10.0**	**mg/L**	1	6/19/2009 11:00 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#3
Lab ID: 0906452-06
Collection Date: 6/16/2009 01:50 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/24/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/24/2009 06:04 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/19/2009**	Analyst: **SKS**
Aluminum	**0.308**		**0.0200**	**mg/L**	1	6/23/2009 07:44 AM
Arsenic	**0.00815**		**0.00500**	**mg/L**	1	6/23/2009 07:44 AM
Barium	**0.115**		**0.00500**	**mg/L**	1	6/23/2009 07:44 AM
Boron	**0.160**		**0.0200**	**mg/L**	1	6/23/2009 07:44 AM
Cadmium	ND		0.00200	mg/L	1	6/23/2009 07:44 AM
Calcium	**19.9**		**0.500**	**mg/L**	1	6/23/2009 07:44 AM
Chromium	**0.00709**		**0.00500**	**mg/L**	1	6/23/2009 07:44 AM
Cobalt	ND		0.00500	mg/L	1	6/23/2009 07:44 AM
Copper	ND		0.00500	mg/L	1	6/23/2009 07:44 AM
Iron	ND		0.200	mg/L	1	6/23/2009 07:44 AM
Lead	ND		0.00500	mg/L	1	6/23/2009 07:44 AM
Magnesium	**3.09**		**0.200**	**mg/L**	1	6/23/2009 07:44 AM
Manganese	ND		0.00500	mg/L	1	6/23/2009 07:44 AM
Molybdenum	**0.0151**		**0.00500**	**mg/L**	1	6/23/2009 07:44 AM
Nickel	ND		0.00500	mg/L	1	6/23/2009 07:44 AM
Potassium	**2.69**		**0.200**	**mg/L**	1	6/23/2009 07:44 AM
Selenium	ND		0.00500	mg/L	1	6/23/2009 07:44 AM
Silver	ND		0.00500	mg/L	1	6/23/2009 07:44 AM
Sodium	**141**		**0.200**	**mg/L**	1	6/23/2009 07:44 AM
Zinc	ND		0.0100	mg/L	1	6/23/2009 07:44 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1,1'-Biphenyl	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	6/30/2009 03:38 AM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
2-Chloronaphthalene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
2-Chlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
2-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
2-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
2-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
2-Nitrophenol	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
3&4-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 03:38 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW#3
Collection Date: 6/16/2009 01:50 PM

Work Order: 0906452
Lab ID: 0906452-06
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
3-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
4-Chloroaniline	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
4-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
4-Nitrophenol	ND		0.0010	mg/L	1	6/30/2009 03:38 AM
Acenaphthene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Acenaphthylene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Acetophenone	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Anthracene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Atrazine	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Benz(a)anthracene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Benzaldehyde	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Benzo(a)pyrene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Bis(2-ethylhexyl)phthalate	**0.0022**		**0.00020**	**mg/L**	1	6/30/2009 03:38 AM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Caprolactam	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Carbazole	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Chrysene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Dibenzofuran	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Diethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Dimethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Fluoranthene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Fluorene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Hexachlorobenzene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Hexachlorobutadiene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Hexachloroethane	ND		0.00020	mg/L	1	6/30/2009 03:38 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW#3
Collection Date: 6/16/2009 01:50 PM

Work Order: 0906452
Lab ID: 0906452-06
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Isophorone	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Naphthalene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Nitrobenzene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Pentachlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Phenanthrene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Phenol	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Pyrene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Surr: 2,4,6-Tribromophenol	*69.0*		*34-129*	*%REC*	1	6/30/2009 03:38 AM
Surr: 2-Fluorobiphenyl	*66.1*		*40-125*	*%REC*	1	6/30/2009 03:38 AM
Surr: 2-Fluorophenol	*55.8*		*20-120*	*%REC*	1	6/30/2009 03:38 AM
Surr: 4-Terphenyl-d14	*63.7*		*40-135*	*%REC*	1	6/30/2009 03:38 AM
Surr: Nitrobenzene-d5	*55.2*		*41-120*	*%REC*	1	6/30/2009 03:38 AM
Surr: Phenol-d6	*60.2*		*20-120*	*%REC*	1	6/30/2009 03:38 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
2-Butanone	ND		0.010	mg/L	1	6/24/2009 06:37 PM
2-Hexanone	ND		0.010	mg/L	1	6/24/2009 06:37 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/24/2009 06:37 PM
Acetone	ND		0.010	mg/L	1	6/24/2009 06:37 PM
Benzene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Bromoform	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Bromomethane	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Carbon disulfide	ND		0.010	mg/L	1	6/24/2009 06:37 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#3
Lab ID: 0906452-06
Collection Date: 6/16/2009 01:50 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Chloroethane	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Chloroform	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Chloromethane	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
m,p-Xylene	ND		0.010	mg/L	1	6/24/2009 06:37 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Methylene chloride	ND		0.010	mg/L	1	6/24/2009 06:37 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Naphthalene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
o-Xylene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Styrene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Toluene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Trichloroethene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/24/2009 06:37 PM
Xylenes, Total	ND		0.015	mg/L	1	6/24/2009 06:37 PM
Surr: 1,2-Dichloroethane-d4	*114*		*70-125*	*%REC*	1	6/24/2009 06:37 PM
Surr: 4-Bromofluorobenzene	*109*		*72-125*	*%REC*	1	6/24/2009 06:37 PM
Surr: Dibromofluoromethane	*109*		*71-125*	*%REC*	1	6/24/2009 06:37 PM
Surr: Toluene-d8	*108*		*75-125*	*%REC*	1	6/24/2009 06:37 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**29.1**		**0.500**	**mg/L**	1	6/22/2009 02:03 PM
Fluoride	**3.38**		**0.100**	**mg/L**	1	6/22/2009 02:03 PM
Sulfate	**64.6**		**2.50**	**mg/L**	5	6/22/2009 09:48 PM
Nitrate/Nitrite (as N)	**2.19**		**0.500**	**mg/L**	5	6/19/2009 08:31 PM
Surr: Selenate (surr)	*95.9*		*85-115*	*%REC*	5	6/22/2009 09:48 PM
Surr: Selenate (surr)	*95.3*		*85-115*	*%REC*	1	6/22/2009 02:03 PM
Surr: Selenate (surr)	*104*		*85-115*	*%REC*	5	6/19/2009 08:31 PM
ALKALINITY			**SM2320B**			Analyst: **TDW**

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#3
Lab ID: 0906452-06
Collection Date: 6/16/2009 01:50 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**223**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Total (As CaCO3)	**223**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**867**		**1.00**	**µmhos/cm**	1	6/17/2009 05:00 PM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.54**	H	**0.100**	**pH units**	1	6/17/2009 03:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**504**		**10.0**	**mg/L**	1	6/19/2009 11:00 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#9
Lab ID: 0906452-07
Collection Date: 6/16/2009 02:20 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/24/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/24/2009 06:06 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/19/2009**	Analyst: **SKS**
Aluminum	**0.0468**		**0.0200**	**mg/L**	1	6/23/2009 07:50 AM
Arsenic	**0.0373**		**0.00500**	**mg/L**	1	6/23/2009 07:50 AM
Barium	**0.0911**		**0.00500**	**mg/L**	1	6/23/2009 07:50 AM
Boron	**0.122**		**0.0200**	**mg/L**	1	6/23/2009 07:50 AM
Cadmium	ND		0.00200	mg/L	1	6/23/2009 07:50 AM
Calcium	**10.9**		**0.500**	**mg/L**	1	6/23/2009 07:50 AM
Chromium	ND		0.00500	mg/L	1	6/23/2009 07:50 AM
Cobalt	ND		0.00500	mg/L	1	6/23/2009 07:50 AM
Copper	ND		0.00500	mg/L	1	6/23/2009 07:50 AM
Iron	ND		0.200	mg/L	1	6/23/2009 07:50 AM
Lead	ND		0.00500	mg/L	1	6/23/2009 07:50 AM
Magnesium	**1.56**		**0.200**	**mg/L**	1	6/23/2009 07:50 AM
Manganese	ND		0.00500	mg/L	1	6/23/2009 07:50 AM
Molybdenum	ND		0.00500	mg/L	1	6/23/2009 07:50 AM
Nickel	ND		0.00500	mg/L	1	6/23/2009 07:50 AM
Potassium	**2.20**		**0.200**	**mg/L**	1	6/23/2009 07:50 AM
Selenium	ND		0.00500	mg/L	1	6/23/2009 07:50 AM
Silver	ND		0.00500	mg/L	1	6/23/2009 07:50 AM
Sodium	**117**		**0.200**	**mg/L**	1	6/23/2009 07:50 AM
Zinc	ND		0.0100	mg/L	1	6/23/2009 07:50 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1,1'-Biphenyl	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	6/30/2009 03:59 AM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
2-Chloronaphthalene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
2-Chlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
2-Methylnaphthalene	**0.00030**		**0.00020**	**mg/L**	1	6/30/2009 03:59 AM
2-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
2-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
2-Nitrophenol	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
3&4-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 03:59 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#9
Lab ID: 0906452-07
Collection Date: 6/16/2009 02:20 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
3-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
4-Chloroaniline	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
4-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
4-Nitrophenol	ND		0.0010	mg/L	1	6/30/2009 03:59 AM
Acenaphthene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Acenaphthylene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Acetophenone	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Anthracene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Atrazine	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Benz(a)anthracene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Benzaldehyde	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Benzo(a)pyrene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Bis(2-ethylhexyl)phthalate	**0.0030**		**0.00020**	**mg/L**	1	6/30/2009 03:59 AM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Caprolactam	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Carbazole	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Chrysene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Dibenzofuran	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Diethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Dimethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Fluoranthene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Fluorene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Hexachlorobenzene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Hexachlorobutadiene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Hexachloroethane	ND		0.00020	mg/L	1	6/30/2009 03:59 AM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 0906452
Sample ID: MW#9 **Lab ID:** 0906452-07
Collection Date: 6/16/2009 02:20 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Isophorone	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Naphthalene	**0.00057**		**0.00020**	**mg/L**	1	6/30/2009 03:59 AM
Nitrobenzene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Pentachlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Phenanthrene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Phenol	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Pyrene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Surr: 2,4,6-Tribromophenol	*63.7*		*34-129*	*%REC*	1	6/30/2009 03:59 AM
Surr: 2-Fluorobiphenyl	*66.7*		*40-125*	*%REC*	1	6/30/2009 03:59 AM
Surr: 2-Fluorophenol	*58.7*		*20-120*	*%REC*	1	6/30/2009 03:59 AM
Surr: 4-Terphenyl-d14	*63.1*		*40-135*	*%REC*	1	6/30/2009 03:59 AM
Surr: Nitrobenzene-d5	*57.0*		*41-120*	*%REC*	1	6/30/2009 03:59 AM
Surr: Phenol-d6	*62.5*		*20-120*	*%REC*	1	6/30/2009 03:59 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
2-Butanone	ND		0.010	mg/L	1	6/24/2009 07:02 PM
2-Hexanone	ND		0.010	mg/L	1	6/24/2009 07:02 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/24/2009 07:02 PM
Acetone	ND		0.010	mg/L	1	6/24/2009 07:02 PM
Benzene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Bromoform	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Bromomethane	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Carbon disulfide	ND		0.010	mg/L	1	6/24/2009 07:02 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#9
Lab ID: 0906452-07
Collection Date: 6/16/2009 02:20 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Chloroethane	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Chloroform	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Chloromethane	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
m,p-Xylene	ND		0.010	mg/L	1	6/24/2009 07:02 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Methylene chloride	ND		0.010	mg/L	1	6/24/2009 07:02 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Naphthalene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
o-Xylene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Styrene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Toluene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Trichloroethene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/24/2009 07:02 PM
Xylenes, Total	ND		0.015	mg/L	1	6/24/2009 07:02 PM
Surr: 1,2-Dichloroethane-d4	*117*		*70-125*	*%REC*	1	6/24/2009 07:02 PM
Surr: 4-Bromofluorobenzene	*109*		*72-125*	*%REC*	1	6/24/2009 07:02 PM
Surr: Dibromofluoromethane	*111*		*71-125*	*%REC*	1	6/24/2009 07:02 PM
Surr: Toluene-d8	*104*		*75-125*	*%REC*	1	6/24/2009 07:02 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**23.0**		**0.500**	**mg/L**	1	6/22/2009 02:27 PM
Fluoride	**1.69**		**0.100**	**mg/L**	1	6/22/2009 02:27 PM
Sulfate	**73.2**		**2.50**	**mg/L**	5	6/22/2009 10:12 PM
Nitrate/Nitrite (as N)	**0.748**		**0.500**	**mg/L**	5	6/19/2009 10:04 PM
Surr: Selenate (surr)	*95.9*		*85-115*	*%REC*	5	6/22/2009 10:12 PM
Surr: Selenate (surr)	*95.6*		*85-115*	*%REC*	1	6/22/2009 02:27 PM
Surr: Selenate (surr)	*103*		*85-115*	*%REC*	5	6/19/2009 10:04 PM
ALKALINITY			**SM2320B**			Analyst: **TDW**

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW#9
Collection Date: 6/16/2009 02:20 PM

Work Order: 0906452
Lab ID: 0906452-07
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**184**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Total (As CaCO3)	**184**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**715**		**1.00**	**µmhos/cm**	1	6/17/2009 05:00 PM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.80**	H	**0.100**	**pH units**	1	6/17/2009 03:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**380**		**10.0**	**mg/L**	1	6/19/2009 11:00 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#10
Lab ID: 0906452-08
Collection Date: 6/16/2009 03:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/24/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/24/2009 06:12 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/19/2009**	Analyst: **SKS**
Aluminum	ND		0.0200	mg/L	1	6/23/2009 07:56 AM
Arsenic	ND		0.00500	mg/L	1	6/23/2009 07:56 AM
Barium	**0.113**		**0.00500**	**mg/L**	1	6/23/2009 07:56 AM
Boron	**0.138**		**0.0200**	**mg/L**	1	6/23/2009 07:56 AM
Cadmium	ND		0.00200	mg/L	1	6/23/2009 07:56 AM
Calcium	**59.7**		**0.500**	**mg/L**	1	6/23/2009 07:56 AM
Chromium	ND		0.00500	mg/L	1	6/23/2009 07:56 AM
Cobalt	ND		0.00500	mg/L	1	6/23/2009 07:56 AM
Copper	ND		0.00500	mg/L	1	6/23/2009 07:56 AM
Iron	ND		0.200	mg/L	1	6/23/2009 07:56 AM
Lead	ND		0.00500	mg/L	1	6/23/2009 07:56 AM
Magnesium	**8.86**		**0.200**	**mg/L**	1	6/23/2009 07:56 AM
Manganese	ND		0.00500	mg/L	1	6/23/2009 07:56 AM
Molybdenum	ND		0.00500	mg/L	1	6/23/2009 07:56 AM
Nickel	ND		0.00500	mg/L	1	6/23/2009 07:56 AM
Potassium	**1.93**		**0.200**	**mg/L**	1	6/23/2009 07:56 AM
Selenium	ND		0.00500	mg/L	1	6/23/2009 07:56 AM
Silver	ND		0.00500	mg/L	1	6/23/2009 07:56 AM
Sodium	**43.3**		**0.200**	**mg/L**	1	6/23/2009 07:56 AM
Zinc	**0.0127**		**0.0100**	**mg/L**	1	6/23/2009 07:56 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1,1'-Biphenyl	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	6/30/2009 04:21 AM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
2-Chloronaphthalene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
2-Chlorophenol	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
2-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
2-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
2-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
2-Nitrophenol	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
3&4-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 04:21 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#10
Lab ID: 0906452-08
Collection Date: 6/16/2009 03:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
3-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
4-Chloroaniline	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
4-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
4-Nitrophenol	ND		0.0010	mg/L	1	6/30/2009 04:21 AM
Acenaphthene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Acenaphthylene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Acetophenone	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Anthracene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Atrazine	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Benz(a)anthracene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Benzaldehyde	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Benzo(a)pyrene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Bis(2-ethylhexyl)phthalate	**0.00044**		**0.00020**	**mg/L**	1	6/30/2009 04:21 AM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Caprolactam	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Carbazole	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Chrysene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Dibenzofuran	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Diethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Dimethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Fluoranthene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Fluorene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Hexachlorobenzene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Hexachlorobutadiene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Hexachloroethane	ND		0.00020	mg/L	1	6/30/2009 04:21 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW#10
Collection Date: 6/16/2009 03:00 PM

Work Order: 0906452
Lab ID: 0906452-08
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Isophorone	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Naphthalene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Nitrobenzene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Pentachlorophenol	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Phenanthrene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Phenol	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Pyrene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Surr: 2,4,6-Tribromophenol	*63.5*		*34-129*	*%REC*	1	6/30/2009 04:21 AM
Surr: 2-Fluorobiphenyl	*68.5*		*40-125*	*%REC*	1	6/30/2009 04:21 AM
Surr: 2-Fluorophenol	*59.2*		*20-120*	*%REC*	1	6/30/2009 04:21 AM
Surr: 4-Terphenyl-d14	*59.5*		*40-135*	*%REC*	1	6/30/2009 04:21 AM
Surr: Nitrobenzene-d5	*56.7*		*41-120*	*%REC*	1	6/30/2009 04:21 AM
Surr: Phenol-d6	*61.2*		*20-120*	*%REC*	1	6/30/2009 04:21 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
2-Butanone	ND		0.010	mg/L	1	6/24/2009 07:28 PM
2-Hexanone	ND		0.010	mg/L	1	6/24/2009 07:28 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/24/2009 07:28 PM
Acetone	ND		0.010	mg/L	1	6/24/2009 07:28 PM
Benzene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Bromoform	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Bromomethane	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Carbon disulfide	ND		0.010	mg/L	1	6/24/2009 07:28 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#10
Lab ID: 0906452-08
Collection Date: 6/16/2009 03:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Chloroethane	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Chloroform	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Chloromethane	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
m,p-Xylene	ND		0.010	mg/L	1	6/24/2009 07:28 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Methylene chloride	ND		0.010	mg/L	1	6/24/2009 07:28 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Naphthalene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
o-Xylene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Styrene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Toluene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Trichloroethene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/24/2009 07:28 PM
Xylenes, Total	ND		0.015	mg/L	1	6/24/2009 07:28 PM
Surr: 1,2-Dichloroethane-d4	*111*		*70-125*	*%REC*	1	6/24/2009 07:28 PM
Surr: 4-Bromofluorobenzene	*103*		*72-125*	*%REC*	1	6/24/2009 07:28 PM
Surr: Dibromofluoromethane	*110*		*71-125*	*%REC*	1	6/24/2009 07:28 PM
Surr: Toluene-d8	*103*		*75-125*	*%REC*	1	6/24/2009 07:28 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**32.2**		**0.500**	**mg/L**	1	6/22/2009 02:50 PM
Fluoride	**0.878**		**0.100**	**mg/L**	1	6/22/2009 02:50 PM
Sulfate	**76.5**		**2.50**	**mg/L**	5	6/22/2009 10:35 PM
Nitrate/Nitrite (as N)	**1.83**		**0.500**	**mg/L**	5	6/19/2009 10:27 PM
Surr: Selenate (surr)	*98.0*		*85-115*	*%REC*	5	6/22/2009 10:35 PM
Surr: Selenate (surr)	*95.6*		*85-115*	*%REC*	1	6/22/2009 02:50 PM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	5	6/19/2009 10:27 PM
ALKALINITY			**SM2320B**			Analyst: **TDW**

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#10
Lab ID: 0906452-08
Collection Date: 6/16/2009 03:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**165**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Total (As CaCO3)	**165**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**676**		**1.00**	**µmhos/cm**	1	6/17/2009 05:00 PM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.15**		**0.100**	**pH units**	1	6/17/2009 03:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**378**		**10.0**	**mg/L**	1	6/19/2009 11:00 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Trip Blank 2515
Collection Date: 6/16/2009 04:50 PM

Work Order: 0906452
Lab ID: 0906452-09
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
2-Butanone	ND		0.010	mg/L	1	6/24/2009 04:54 PM
2-Hexanone	ND		0.010	mg/L	1	6/24/2009 04:54 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/24/2009 04:54 PM
Acetone	ND		0.010	mg/L	1	6/24/2009 04:54 PM
Benzene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Bromoform	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Bromomethane	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Carbon disulfide	ND		0.010	mg/L	1	6/24/2009 04:54 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Chloroethane	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Chloroform	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Chloromethane	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
m,p-Xylene	ND		0.010	mg/L	1	6/24/2009 04:54 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Methylene chloride	ND		0.010	mg/L	1	6/24/2009 04:54 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Naphthalene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
o-Xylene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Styrene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: Trip Blank 2515
Lab ID: 0906452-09
Collection Date: 6/16/2009 04:50 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tetrachloroethene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Toluene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Trichloroethene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/24/2009 04:54 PM
Xylenes, Total	ND		0.015	mg/L	1	6/24/2009 04:54 PM
Surr: 1,2-Dichloroethane-d4	*110*		*70-125*	*%REC*	1	6/24/2009 04:54 PM
Surr: 4-Bromofluorobenzene	*104*		*72-125*	*%REC*	1	6/24/2009 04:54 PM
Surr: Dibromofluoromethane	*107*		*71-125*	*%REC*	1	6/24/2009 04:54 PM
Surr: Toluene-d8	*105*		*75-125*	*%REC*	1	6/24/2009 04:54 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Trip Blank 2497
Collection Date: 6/16/2009 04:50 PM

Work Order: 0906452
Lab ID: 0906452-10
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
2-Butanone	ND		0.010	mg/L	1	6/24/2009 05:20 PM
2-Hexanone	ND		0.010	mg/L	1	6/24/2009 05:20 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/24/2009 05:20 PM
Acetone	ND		0.010	mg/L	1	6/24/2009 05:20 PM
Benzene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Bromoform	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Bromomethane	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Carbon disulfide	ND		0.010	mg/L	1	6/24/2009 05:20 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Chloroethane	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Chloroform	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Chloromethane	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
m,p-Xylene	ND		0.010	mg/L	1	6/24/2009 05:20 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Methylene chloride	ND		0.010	mg/L	1	6/24/2009 05:20 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Naphthalene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
o-Xylene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Styrene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: Trip Blank 2497
Lab ID: 0906452-10
Collection Date: 6/16/2009 04:50 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tetrachloroethene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Toluene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Trichloroethene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/24/2009 05:20 PM
Xylenes, Total	ND		0.015	mg/L	1	6/24/2009 05:20 PM
Surr: 1,2-Dichloroethane-d4	*109*		*70-125*	*%REC*	1	6/24/2009 05:20 PM
Surr: 4-Bromofluorobenzene	*104*		*72-125*	*%REC*	1	6/24/2009 05:20 PM
Surr: Dibromofluoromethane	*108*		*71-125*	*%REC*	1	6/24/2009 05:20 PM
Surr: Toluene-d8	*102*		*75-125*	*%REC*	1	6/24/2009 05:20 PM

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

ALS Laboratory Group

Date: 28-Sep-09

Client: Navajo Refining Company

Work Order: 0906452

Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36701** Instrument ID **ICP7500** Method: **SW6020** **(Dissolve)**

MBLK Sample ID: **MBLKW4-061909-36701** Units: **mg/L** Analysis Date: **6/23/2009 05:06 AM**

Client ID: Run ID: **ICP7500_090622A** SeqNo: **1701927** Prep Date: **6/19/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.01649	0.010								
Arsenic	ND	0.0050								
Barium	ND	0.0050								
Boron	0.01767	0.020								J
Cadmium	ND	0.0020								
Calcium	0.06794	0.50								J
Chromium	ND	0.0050								
Cobalt	ND	0.0050								
Copper	0.0009685	0.0050								J
Iron	ND	0.20								
Lead	ND	0.0050								
Magnesium	ND	0.20								
Manganese	ND	0.0050								
Molybdenum	0.001872	0.0050								J
Nickel	ND	0.0050								
Potassium	ND	0.20								
Selenium	ND	0.0050								
Silver	0.001123	0.0050								J
Sodium	ND	0.20								
Zinc	0.008763	0.010								J

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36701** Instrument ID **ICP7500** Method: **SW6020** **(Dissolve)**

LCS Sample ID: **MLCSW4-061909-36701** Units: **mg/L** Analysis Date: **6/23/2009 05:12 AM**
Client ID: Run ID: **ICP7500_090622A** SeqNo: **1701928** Prep Date: **6/19/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1031	0.020	0.1	0	103	80-120	0			
Arsenic	0.05311	0.0050	0.05	0	106	80-120	0			
Barium	0.0499	0.0050	0.05	0	99.8	80-120	0			
Boron	0.4794	0.020	0.5	0	95.9	80-120	0			
Cadmium	0.04907	0.0020	0.05	0	98.1	80-120	0			
Calcium	4.89	0.50	5	0	97.8	80-120	0			
Chromium	0.04775	0.0050	0.05	0	95.5	80-120	0			
Cobalt	0.04938	0.0050	0.05	0	98.8	80-120	0			
Copper	0.04724	0.0050	0.05	0	94.5	80-120	0			
Iron	4.713	0.20	5	0	94.3	80-120	0			
Lead	0.04548	0.0050	0.05	0	91	80-120	0			
Magnesium	4.682	0.20	5	0	93.6	80-120	0			
Manganese	0.04879	0.0050	0.05	0	97.6	80-120	0			
Molybdenum	0.04838	0.0050	0.05	0	96.8	80-120	0			
Nickel	0.04873	0.0050	0.05	0	97.5	80-120	0			
Potassium	4.843	0.20	5	0	96.9	80-120	0			
Selenium	0.05017	0.0050	0.05	0	100	80-120	0			
Sodium	4.714	0.20	5	0	94.3	80-120	0			

LCS Sample ID: **MLCSW4-061909-36701** Units: **mg/L** Analysis Date: **6/23/2009 04:49 PM**
Client ID: Run ID: **ICP7500_090623A** SeqNo: **1702697** Prep Date: **6/19/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Silver	0.05214	0.0050	0.05	0	104	80-120	0			
Zinc	0.06169	0.0050	0.05	0	123	80-120	0			S

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36701** Instrument ID **ICP7500** Method: **SW6020** **(Dissolve)**

MS Sample ID: **0906440-14BMS** Units: **mg/L** Analysis Date: **6/23/2009 06:31 AM**

Client ID: Run ID: **ICP7500_090622A** SeqNo: **1701940** Prep Date: **6/19/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1117	0.020	0.1	0	112	75-125	0			
Arsenic	0.0538	0.0050	0.05	0	108	75-125	0			
Barium	0.5978	0.0050	0.05	0.5336	128	75-125	0			SO
Boron	0.7304	0.020	0.5	0.2239	101	75-125	0			
Cadmium	0.05094	0.0020	0.05	0	102	75-125	0			
Calcium	66.01	0.50	5	58.31	154	75-125	0			SO
Chromium	0.04972	0.0050	0.05	0.001153	97.1	75-125	0			
Cobalt	0.05174	0.0050	0.05	0.001271	101	75-125	0			
Copper	0.04863	0.0050	0.05	0.001329	94.6	75-125	0			
Iron	4.876	0.20	5	0	97.5	75-125	0			
Lead	0.04986	0.0050	0.05	0	99.7	75-125	0			
Magnesium	27.6	0.20	5	22.21	108	75-125	0			O
Manganese	0.134	0.0050	0.05	0.08061	107	75-125	0			
Molybdenum	0.05436	0.0050	0.05	0.002976	103	75-125	0			
Nickel	0.07937	0.0050	0.05	0.02877	101	75-125	0			
Potassium	5.526	0.20	5	0.5315	99.9	75-125	0			
Selenium	0.05272	0.0050	0.05	0	105	75-125	0			
Sodium	145	0.20	5	138.8	124	75-125	0			O

MS Sample ID: **0906440-14BMS** Units: **mg/L** Analysis Date: **6/23/2009 05:01 PM**

Client ID: Run ID: **ICP7500_090623A** SeqNo: **1702699** Prep Date: **6/19/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Silver	0.04909	0.0050	0.05	0	98.2	75-125	0			
Zinc	0.0714	0.010	0.05	0.003373	136	75-125	0			S

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36701** Instrument ID **ICP7500** Method: **SW6020** **(Dissolve)**

MSD Sample ID: **0906440-14BMSD** Units: **mg/L** Analysis Date: **6/23/2009 06:37 AM**
Client ID: Run ID: **ICP7500_090622A** SeqNo: **1701941** Prep Date: **6/19/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1053	0.020	0.1	0	105	75-125	0.1117	5.9	25	
Arsenic	0.05105	0.0050	0.05	0	102	75-125	0.0538	5.25	25	
Barium	0.5913	0.0050	0.05	0.5336	115	75-125	0.5978	1.09	25	O
Boron	0.7198	0.020	0.5	0.2239	99.2	75-125	0.7304	1.46	25	
Cadmium	0.04743	0.0020	0.05	0	94.9	75-125	0.05094	7.14	25	
Calcium	64.23	0.50	5	58.31	118	75-125	66.01	2.73	25	O
Chromium	0.04738	0.0050	0.05	0.001153	92.5	75-125	0.04972	4.82	25	
Cobalt	0.0494	0.0050	0.05	0.001271	96.3	75-125	0.05174	4.63	25	
Copper	0.04677	0.0050	0.05	0.001329	90.9	75-125	0.04863	3.9	25	
Iron	4.765	0.20	5	0	95.3	75-125	4.876	2.3	25	
Lead	0.04744	0.0050	0.05	0	94.9	75-125	0.04986	4.97	25	
Magnesium	27.27	0.20	5	22.21	101	75-125	27.6	1.2	25	O
Manganese	0.1286	0.0050	0.05	0.08061	96	75-125	0.134	4.11	25	
Molybdenum	0.05313	0.0050	0.05	0.002976	100	75-125	0.05436	2.29	25	
Nickel	0.07626	0.0050	0.05	0.02877	95	75-125	0.07937	4	25	
Potassium	5.37	0.20	5	0.5315	96.8	75-125	5.526	2.86	25	
Selenium	0.05072	0.0050	0.05	0	101	75-125	0.05272	3.87	25	
Sodium	143.3	0.20	5	138.8	90	75-125	145	1.18	25	O

MSD Sample ID: **0906440-14BMSD** Units: **mg/L** Analysis Date: **6/23/2009 05:07 PM**
Client ID: Run ID: **ICP7500_090623A** SeqNo: **1702700** Prep Date: **6/19/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Silver	0.04854	0.0050	0.05	0	97.1	75-125	0.04909	1.13	25	
Zinc	0.05082	0.010	0.05	0.003373	94.9	75-125	0.0714	33.7	25	R

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36701** Instrument ID **ICP7500** Method: **SW6020** **(Dissolve)**

DUP Sample ID: **0906440-14BDUP** Units: **mg/L** Analysis Date: **6/23/2009 06:25 AM**

Client ID: Run ID: **ICP7500_090622A** SeqNo: **1701939** Prep Date: **6/19/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	ND	0.020	0	0	0	0-0	0	0	25	
Arsenic	0.0009755	0.0050	0	0	0	0-0	0	0	25	J
Barium	0.5373	0.0050	0	0	0	0-0	0.5336	0.691	25	
Boron	0.2381	0.020	0	0	0	0-0	0.2239	6.15	25	
Cadmium	ND	0.0020	0	0	0	0-0	0	0	25	
Calcium	59.7	0.50	0	0	0	0-0	58.31	2.36	25	
Chromium	ND	0.0050	0	0	0	0-0	0.001153	0	25	
Cobalt	0.001338	0.0050	0	0	0	0-0	0.001271	0	25	J
Copper	0.001335	0.0050	0	0	0	0-0	0.001329	0	25	J
Iron	ND	0.20	0	0	0	0-0	0	0	25	
Lead	ND	0.0050	0	0	0	0-0	0	0	25	
Magnesium	22.51	0.20	0	0	0	0-0	22.21	1.34	25	
Manganese	0.08177	0.0050	0	0	0	0-0	0.08061	1.43	25	
Molybdenum	0.004534	0.0050	0	0	0	0-0	0.002976	0	25	J
Nickel	0.02862	0.0050	0	0	0	0-0	0.02877	0.523	25	
Potassium	0.5414	0.20	0	0	0	0-0	0.5315	1.85	25	
Selenium	ND	0.0050	0	0	0	0-0	0	0	25	
Silver	ND	0.0050	0	0	0	0-0	0	0	25	
Sodium	139	0.20	0	0	0	0-0	138.8	0.144	25	
Zinc	0.004958	0.010	0	0	0	0-0	0.003373	0	25	J

The following samples were analyzed in this batch:

0906452-01C	0906452-02C	0906452-03C
0906452-04C	0906452-05C	0906452-06C
0906452-07C	0906452-08C	

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36777** Instrument ID **Mercury** Method: **SW7470**

MBLK Sample ID: **GBLKW3-062409-36777** Units: **mg/L** Analysis Date: **6/24/2009 05:23 PM**
Client ID: Run ID: **MERCURY_090624A** SeqNo: **1704245** Prep Date: **6/24/2009** 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: **GLCSW3-062409-36777** Units: **mg/L** Analysis Date: **6/24/2009 05:25 PM**
Client ID: Run ID: **MERCURY_090624A** SeqNo: **1704246** Prep Date: **6/24/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00556	0.00020	0.005	0	111	85-115	0			

MS Sample ID: **0906467-01EMS** Units: **mg/L** Analysis Date: **6/24/2009 05:31 PM**
Client ID: Run ID: **MERCURY_090624A** SeqNo: **1704249** Prep Date: **6/24/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00577	0.00020	0.005	-0.000059	117	85-115	0			S

MSD Sample ID: **0906467-01EMSD** Units: **mg/L** Analysis Date: **6/24/2009 05:34 PM**
Client ID: Run ID: **MERCURY_090624A** SeqNo: **1704250** Prep Date: **6/24/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00568	0.00020	0.005	-0.000059	115	85-115	0.00577	1.57	20	

DUP Sample ID: **0906467-01EDUP** Units: **mg/L** Analysis Date: **6/24/2009 05:29 PM**
Client ID: Run ID: **MERCURY_090624A** SeqNo: **1704248** Prep Date: **6/24/2009** 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	-0.000059	0	20	

The following samples were analyzed in this batch:

0906452-01D	0906452-02D	0906452-03D
0906452-04D	0906452-05D	0906452-06D
0906452-07D	0906452-08D	

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36663** Instrument ID **SV-4** Method: **SW8270**

MBLK Sample ID: **SBLKW2-090618-36663** Units: **µg/L** Analysis Date: **6/24/2009 02:20 AM**

Client ID: Run ID: **SV-4_090623C** SeqNo: **1704338** Prep Date: **6/18/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
2,4-Dichlorophenol	ND	0.20								
2,4-Dimethylphenol	ND	0.20								
2,4-Dinitrophenol	ND	1.0								
2,4-Dinitrotoluene	ND	0.20								
2,6-Dinitrotoluene	ND	0.20								
2-Chloronaphthalene	ND	0.20								
2-Chlorophenol	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.20								
2-Nitroaniline	ND	0.20								
2-Nitrophenol	ND	0.20								
3&4-Methylphenol	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.20								
3-Nitroaniline	ND	0.20								
4,6-Dinitro-2-methylphenol	ND	0.20								
4-Bromophenyl phenyl ether	ND	0.20								
4-Chloro-3-methylphenol	ND	0.20								
4-Chloroaniline	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
4-Nitroaniline	ND	0.20								
4-Nitrophenol	ND	1.0								
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Acetophenone	ND	0.20								
Anthracene	ND	0.20								
Atrazine	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzaldehyde	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Caprolactam	ND	0.20								
Carbazole	ND	0.20								

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

Batch ID: **36663** Instrument ID **SV-4** Method: **SW8270**

Chrysene	ND	0.20					
Di-n-butyl phthalate	ND	0.20					
Di-n-octyl phthalate	ND	0.20					
Dibenz(a,h)anthracene	ND	0.20					
Dibenzofuran	ND	0.20					
Diethyl phthalate	ND	0.20					
Dimethyl phthalate	ND	0.20					
Fluoranthene	ND	0.20					
Fluorene	ND	0.20					
Hexachlorobenzene	ND	0.20					
Hexachlorobutadiene	ND	0.20					
Hexachlorocyclopentadiene	ND	0.20					
Hexachloroethane	ND	0.20					
Indeno(1,2,3-cd)pyrene	ND	0.20					
Isophorone	ND	0.20					
N-Nitrosodi-n-propylamine	ND	0.20					
N-Nitrosodiphenylamine	ND	0.20					
Naphthalene	ND	0.20					
Nitrobenzene	ND	0.20					
Pentachlorophenol	ND	0.20					
Phenanthrene	ND	0.20					
Phenol	ND	0.20					
Pyrene	ND	0.20					
Surr: 2,4,6-Tribromophenol	*3.019*	0.20	*5*	0	*60.4*	*34-129*	0
Surr: 2-Fluorobiphenyl	*3.745*	0.20	*5*	0	*74.9*	*40-125*	0
Surr: 2-Fluorophenol	*3.478*	0.20	*5*	0	*69.6*	*20-120*	0
Surr: 4-Terphenyl-d14	*3.524*	0.20	*5*	0	*70.5*	*40-135*	0
Surr: Nitrobenzene-d5	*3.678*	0.20	*5*	0	*73.6*	*41-120*	0
Surr: Phenol-d6	*3.207*	0.20	*5*	0	*64.1*	*20-120*	0

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36663** Instrument ID **SV-4** Method: **SW8270**

LCS Sample ID: **SLCSW2-090618-36663** Units: **µg/L** Analysis Date: **6/24/2009 02:37 AM**

Client ID: Run ID: **SV-4_090623C** SeqNo: **1704339** Prep Date: **6/18/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	3.947	0.20	5	0	78.9	45-125	0			
2,4,5-Trichlorophenol	3.981	0.20	5	0	79.6	46-120	0			
2,4,6-Trichlorophenol	4.015	0.20	5	0	80.3	42-120	0			
2,4-Dichlorophenol	3.774	0.20	5	0	75.5	49-120	0			
2,4-Dimethylphenol	3.004	0.20	5	0	60.1	35-120	0			
2,4-Dinitrophenol	2.516	1.0	5	0	50.3	15-120	0			
2,4-Dinitrotoluene	4.363	0.20	5	0	87.3	50-122	0			
2,6-Dinitrotoluene	4.288	0.20	5	0	85.8	50-120	0			
2-Chloronaphthalene	4.529	0.20	5	0	90.6	50-120	0			
2-Chlorophenol	3.889	0.20	5	0	77.8	40-120	0			
2-Methylnaphthalene	4.163	0.20	5	0	83.3	50-120	0			
2-Methylphenol	3.87	0.20	5	0	77.4	45-120	0			
2-Nitroaniline	4.628	0.20	5	0	92.6	28-139	0			
2-Nitrophenol	4.047	0.20	5	0	80.9	40-120	0			
3&4-Methylphenol	3.645	0.20	5	0	72.9	35-120	0			
3,3'-Dichlorobenzidine	3.291	0.20	5	0	65.8	15-120	0			
3-Nitroaniline	3.497	0.20	5	0	69.9	30-120	0			
4,6-Dinitro-2-methylphenol	3.257	0.20	5	0	65.1	25-121	0			
4-Bromophenyl phenyl ether	3.397	0.20	5	0	67.9	45-120	0			
4-Chloro-3-methylphenol	4.064	0.20	5	0	81.3	47-120	0			
4-Chloroaniline	2.847	0.20	5	0	56.9	20-120	0			
4-Chlorophenyl phenyl ether	4.611	0.20	5	0	92.2	50-120	0			
4-Nitroaniline	3.627	0.20	5	0	72.5	30-133	0			
4-Nitrophenol	3.857	1.0	5	0	77.1	30-130	0			
Acenaphthene	3.979	0.20	5	0	79.6	45-120	0			
Acenaphthylene	4.053	0.20	5	0	81.1	47-120	0			
Acetophenone	3.763	0.20	5	0	75.3	40-120	0			
Anthracene	4.301	0.20	5	0	86	45-120	0			
Atrazine	3.618	0.20	5	0	72.4	40-130	0			
Benz(a)anthracene	4.333	0.20	5	0	86.7	40-120	0			
Benzaldehyde	3.173	0.20	5	0	63.5	35-130	0			
Benzo(a)pyrene	4.117	0.20	5	0	82.3	45-120	0			
Benzo(b)fluoranthene	4.516	0.20	5	0	90.3	50-120	0			
Benzo(g,h,i)perylene	3.988	0.20	5	0	79.8	42-127	0			
Benzo(k)fluoranthene	4.072	0.20	5	0	81.4	45-127	0			
Bis(2-chloroethoxy)methane	3.947	0.20	5	0	78.9	45-120	0			
Bis(2-chloroethyl)ether	4.791	0.20	5	0	95.8	37-121	0			
Bis(2-chloroisopropyl)ether	4.082	0.20	5	0	81.6	40-120	0			
Bis(2-ethylhexyl)phthalate	4.428	0.20	5	0	88.6	40-139	0			
Butyl benzyl phthalate	4.426	0.20	5	0	88.5	47-123	0			
Caprolactam	4.639	0.20	5	0	92.8	35-134	0			
Carbazole	4.142	0.20	5	0	82.8	42-128	0			

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

Batch ID: **36663** Instrument ID **SV-4** Method: **SW8270**

Chrysene	4.356	0.20	5	0	87.1	43-120	0
Di-n-butyl phthalate	3.498	0.20	5	0	70	45-123	0
Di-n-octyl phthalate	4.606	0.20	5	0	92.1	45-129	0
Dibenz(a,h)anthracene	4.426	0.20	5	0	88.5	45-125	0
Dibenzofuran	4.22	0.20	5	0	84.4	50-120	0
Diethyl phthalate	4.11	0.20	5	0	82.2	41-120	0
Dimethyl phthalate	4.381	0.20	5	0	87.6	40-122	0
Fluoranthene	3.34	0.20	5	0	66.8	45-125	0
Fluorene	4.454	0.20	5	0	89.1	49-120	0
Hexachlorobenzene	3.545	0.20	5	0	70.9	48-120	0
Hexachlorobutadiene	4.01	0.20	5	0	80.2	40-120	0
Hexachlorocyclopentadiene	3.523	0.20	5	0	70.5	34-136	0
Hexachloroethane	4.037	0.20	5	0	80.7	40-120	0
Indeno(1,2,3-cd)pyrene	4.885	0.20	5	0	97.7	41-128	0
Isophorone	4.072	0.20	5	0	81.4	40-121	0
N-Nitrosodi-n-propylamine	3.439	0.20	5	0	68.8	40-120	0
N-Nitrosodiphenylamine	3.461	0.20	5	0	69.2	40-125	0
Naphthalene	4.162	0.20	5	0	83.2	45-120	0
Nitrobenzene	3.717	0.20	5	0	74.3	44-120	0
Pentachlorophenol	1.232	0.20	5	0	24.6	19-121	0
Phenanthrene	4.353	0.20	5	0	87.1	45-121	0
Phenol	4.197	0.20	5	0	83.9	20-124	0
Pyrene	4.724	0.20	5	0	94.5	40-130	0
Surr: 2,4,6-Tribromophenol	*3.689*	0.20	*5*	0	*73.8*	*34-129*	0
Surr: 2-Fluorobiphenyl	*4.049*	0.20	*5*	0	*81*	*40-125*	0
Surr: 2-Fluorophenol	*3.007*	0.20	*5*	0	*60.1*	*20-120*	0
Surr: 4-Terphenyl-d14	*4.02*	0.20	*5*	0	*80.4*	*40-135*	0
Surr: Nitrobenzene-d5	*3.723*	0.20	*5*	0	*74.5*	*41-120*	0
Surr: Phenol-d6	*3.573*	0.20	*5*	0	*71.5*	*20-120*	0

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36663** Instrument ID **SV-4** Method: **SW8270**

LCSD Sample ID: **SLCSDW2-090618-36663** Units: **µg/L** Analysis Date: **6/24/2009 03:05 AM**

Client ID: Run ID: **SV-4_090623C** SeqNo: **1704340** Prep Date: **6/18/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	3.942	0.20	5	0	78.8	45-125	3.947	0.127	20	
2,4,5-Trichlorophenol	4.131	0.20	5	0	82.6	46-120	3.981	3.7	20	
2,4,6-Trichlorophenol	4.029	0.20	5	0	80.6	42-120	4.015	0.34	20	
2,4-Dichlorophenol	4.129	0.20	5	0	82.6	49-120	3.774	8.98	20	
2,4-Dimethylphenol	3.103	0.20	5	0	62.1	35-120	3.004	3.25	20	
2,4-Dinitrophenol	2.155	1.0	5	0	43.1	15-120	2.516	15.5	20	
2,4-Dinitrotoluene	4.427	0.20	5	0	88.5	50-122	4.363	1.47	20	
2,6-Dinitrotoluene	4.3	0.20	5	0	86	50-120	4.288	0.294	20	
2-Chloronaphthalene	5.042	0.20	5	0	101	50-120	4.529	10.7	20	
2-Chlorophenol	4.194	0.20	5	0	83.9	40-120	3.889	7.55	20	
2-Methylnaphthalene	4.233	0.20	5	0	84.7	50-120	4.163	1.67	20	
2-Methylphenol	3.912	0.20	5	0	78.2	45-120	3.87	1.1	20	
2-Nitroaniline	4.73	0.20	5	0	94.6	28-139	4.628	2.17	20	
2-Nitrophenol	4.178	0.20	5	0	83.6	40-120	4.047	3.19	20	
3&4-Methylphenol	3.882	0.20	5	0	77.6	35-120	3.645	6.3	20	
3,3'-Dichlorobenzidine	3.428	0.20	5	0	68.6	15-120	3.291	4.09	20	
3-Nitroaniline	3.3	0.20	5	0	66	30-120	3.497	5.82	20	
4,6-Dinitro-2-methylphenol	3.026	0.20	5	0	60.5	25-121	3.257	7.36	20	
4-Bromophenyl phenyl ether	3.442	0.20	5	0	68.8	45-120	3.397	1.31	20	
4-Chloro-3-methylphenol	4.183	0.20	5	0	83.7	47-120	4.064	2.89	20	
4-Chloroaniline	2.755	0.20	5	0	55.1	20-120	2.847	3.3	20	
4-Chlorophenyl phenyl ether	4.596	0.20	5	0	91.9	50-120	4.611	0.33	20	
4-Nitroaniline	3.452	0.20	5	0	69	30-133	3.627	4.94	20	
4-Nitrophenol	3.841	1.0	5	0	76.8	30-130	3.857	0.43	20	
Acenaphthene	3.964	0.20	5	0	79.3	45-120	3.979	0.384	20	
Acenaphthylene	4.157	0.20	5	0	83.1	47-120	4.053	2.55	20	
Acetophenone	3.984	0.20	5	0	79.7	40-120	3.763	5.71	20	
Anthracene	4.414	0.20	5	0	88.3	45-120	4.301	2.58	20	
Atrazine	3.527	0.20	5	0	70.5	40-130	3.618	2.55	20	
Benz(a)anthracene	4.485	0.20	5	0	89.7	40-120	4.333	3.46	20	
Benzaldehyde	3.292	0.20	5	0	65.8	35-130	3.173	3.69	20	
Benzo(a)pyrene	4.534	0.20	5	0	90.7	45-120	4.117	9.64	20	
Benzo(b)fluoranthene	4.441	0.20	5	0	88.8	50-120	4.516	1.69	20	
Benzo(g,h,i)perylene	4.415	0.20	5	0	88.3	42-127	3.988	10.2	20	
Benzo(k)fluoranthene	4.104	0.20	5	0	82.1	45-127	4.072	0.767	20	
Bis(2-chloroethoxy)methane	4.142	0.20	5	0	82.8	45-120	3.947	4.83	20	
Bis(2-chloroethyl)ether	4.842	0.20	5	0	96.8	37-121	4.791	1.07	20	
Bis(2-chloroisopropyl)ether	4.353	0.20	5	0	87.1	40-120	4.082	6.43	20	
Bis(2-ethylhexyl)phthalate	4.646	0.20	5	0	92.9	40-139	4.428	4.8	20	
Butyl benzyl phthalate	4.531	0.20	5	0	90.6	47-123	4.426	2.33	20	
Caprolactam	4.494	0.20	5	0	89.9	35-134	4.639	3.18	20	
Carbazole	4.302	0.20	5	0	86	42-128	4.142	3.78	20	

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36663** Instrument ID **SV-4** Method: **SW8270**

Chrysene	4.36	0.20	5	0	87.2	43-120	4.356	0.0936	20
Di-n-butyl phthalate	3.73	0.20	5	0	74.6	45-123	3.498	6.43	20
Di-n-octyl phthalate	4.835	0.20	5	0	96.7	45-129	4.606	4.84	20
Dibenz(a,h)anthracene	4.335	0.20	5	0	86.7	45-125	4.426	2.08	20
Dibenzofuran	4.261	0.20	5	0	85.2	50-120	4.22	0.959	20
Diethyl phthalate	4.044	0.20	5	0	80.9	41-120	4.11	1.63	20
Dimethyl phthalate	4.392	0.20	5	0	87.8	40-122	4.381	0.245	20
Fluoranthene	3.638	0.20	5	0	72.8	45-125	3.34	8.54	20
Fluorene	4.423	0.20	5	0	88.5	49-120	4.454	0.713	20
Hexachlorobenzene	3.621	0.20	5	0	72.4	48-120	3.545	2.11	20
Hexachlorobutadiene	4.259	0.20	5	0	85.2	40-120	4.01	6.02	20
Hexachlorocyclopentadiene	3.648	0.20	5	0	73	34-136	3.523	3.49	20
Hexachloroethane	4.116	0.20	5	0	82.3	40-120	4.037	1.93	20
Indeno(1,2,3-cd)pyrene	5.302	0.20	5	0	106	41-128	4.885	8.19	20
Isophorone	4.317	0.20	5	0	86.3	40-121	4.072	5.83	20
N-Nitrosodi-n-propylamine	3.761	0.20	5	0	75.2	40-120	3.439	8.94	20
N-Nitrosodiphenylamine	3.489	0.20	5	0	69.8	40-125	3.461	0.815	20
Naphthalene	4.393	0.20	5	0	87.9	45-120	4.162	5.4	20
Nitrobenzene	3.913	0.20	5	0	78.3	44-120	3.717	5.13	20
Pentachlorophenol	1.295	0.20	5	0	25.9	19-121	1.232	4.97	20
Phenanthrene	4.35	0.20	5	0	87	45-121	4.353	0.0514	20
Phenol	4.448	0.20	5	0	89	20-124	4.197	5.83	20
Pyrene	4.704	0.20	5	0	94.1	40-130	4.724	0.428	20
Surr: 2,4,6-Tribromophenol	*3.683*	0.20	*5*	0	*73.7*	*34-129*	3.689	*0.174*	*20*
Surr: 2-Fluorobiphenyl	*4.12*	0.20	*5*	0	*82.4*	*40-125*	4.049	*1.74*	*20*
Surr: 2-Fluorophenol	*3.186*	0.20	*5*	0	*63.7*	*20-120*	3.007	*5.79*	*20*
Surr: 4-Terphenyl-d14	*3.89*	0.20	*5*	0	*77.8*	*40-135*	4.02	*3.3*	*20*
Surr: Nitrobenzene-d5	*4.03*	0.20	*5*	0	*80.6*	*41-120*	3.723	*7.93*	*20*
Surr: Phenol-d6	*3.787*	0.20	*5*	0	*75.7*	*20-120*	3.573	*5.82*	*20*

The following samples were analyzed in this batch:

0906452-01E	0906452-02E	0906452-03E
0906452-04E	0906452-05E	0906452-06E
0906452-07E	0906452-08E	

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78404** Instrument ID **VOA1** Method: **SW8260**

MBLK Sample ID: **VBLKW-062309-R78404** Units: **µg/L** Analysis Date: **6/23/2009 11:09 AM**

Client ID: Run ID: **VOA1_090623A** SeqNo: **1703520** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
2-Butanone	ND	10								
2-Hexanone	ND	10								
4-Isopropyltoluene	ND	5.0								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
Isopropylbenzene	ND	5.0								
m;p-Xylene	ND	10								
Methyl tert-butyl ether	ND	5.0								
Methylene chloride	ND	10								
n-Butylbenzene	ND	5.0								
n-Propylbenzene	ND	5.0								
Naphthalene	ND	5.0								
o-Xylene	ND	5.0								
sec-Butylbenzene	ND	5.0								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,2-Dichloroethene	ND	5.0								

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

Batch ID: **R78404** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Vinyl chloride	ND	2.0					
Xylenes, Total	ND	15					
Surr: 1,2-Dichloroethane-d4	*46.47*	5.0	*50*	0	*92.9*	*70-125*	0
Surr: 4-Bromofluorobenzene	*52.2*	5.0	*50*	0	*104*	*72-125*	0
Surr: Dibromofluoromethane	*49.28*	5.0	*50*	0	*98.6*	*71-125*	0
Surr: Toluene-d8	*52.97*	5.0	*50*	0	*106*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78404** Instrument ID **VOA1** Method: **SW8260**

LCS Sample ID: **VLCSW-062309-R78404** Units: **µg/L** Analysis Date: **6/23/2009 10:18 AM**

Client ID: Run ID: **VOA1_090623A** SeqNo: **1703519** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	47.28	5.0	50	0	94.6	80-120	0			
1,1,2,2-Tetrachloroethane	46.85	5.0	50	0	93.7	72-120	0			
1,1,2-Trichloroethane	49.81	5.0	50	0	99.6	80-120	0			
1,1-Dichloroethane	51.35	5.0	50	0	103	76-120	0			
1,1-Dichloroethene	52.34	5.0	50	0	105	73-124	0			
1,2,4-Trimethylbenzene	54.3	5.0	50	0	109	68-123	0			
1,2-Dibromoethane	51.49	5.0	50	0	103	80-120	0			
1,2-Dichloroethane	52.46	5.0	50	0	105	78-120	0			
1,2-Dichloropropane	54.13	5.0	50	0	108	80-120	0			
1,3,5-Trimethylbenzene	52.25	5.0	50	0	105	80-120	0			
2-Butanone	101.3	10	100	0	101	58-132	0			
2-Hexanone	103.6	10	100	0	104	61-130	0			
4-Isopropyltoluene	50.09	5.0	50	0	100	79-120	0			
4-Methyl-2-pentanone	104.5	10	100	0	104	65-127	0			
Acetone	90.49	10	100	0	90.5	59-137	0			
Benzene	52.52	5.0	50	0	105	73-121	0			
Bromodichloromethane	50.55	5.0	50	0	101	80-120	0			
Bromoform	53.35	5.0	50	0	107	79-120	0			
Bromomethane	51.12	5.0	50	0	102	66-137	0			
Carbon disulfide	99.87	10	100	0	99.9	68-141	0			
Carbon tetrachloride	53.8	5.0	50	0	108	75-124	0			
Chlorobenzene	53.61	5.0	50	0	107	80-120	0			
Chloroethane	50.1	5.0	50	0	100	76-121	0			
Chloroform	48.97	5.0	50	0	97.9	80-120	0			
Chloromethane	49.92	5.0	50	0	99.8	67-123	0			
cis-1,2-Dichloroethene	51.59	5.0	50	0	103	78-120	0			
cis-1,3-Dichloropropene	55.93	5.0	50	0	112	80-120	0			
Dibromochloromethane	53.07	5.0	50	0	106	80-120	0			
Ethylbenzene	52.65	5.0	50	0	105	80-120	0			
Isopropylbenzene	50.26	5.0	50	0	101	80-120	0			
m,p-Xylene	109.6	10	100	0	110	78-121	0			
Methyl tert-butyl ether	51.32	5.0	50	0	103	73-121	0			
Methylene chloride	47.48	10	50	0	95	65-133	0			
n-Butylbenzene	49.98	5.0	50	0	100	77-120	0			
n-Propylbenzene	51.74	5.0	50	0	103	78-120	0			
Naphthalene	47.64	5.0	50	0	95.3	65-127	0			
o-Xylene	53.34	5.0	50	0	107	80-120	0			
sec-Butylbenzene	53.07	5.0	50	0	106	78-120	0			
Styrene	51.73	5.0	50	0	103	80-120	0			
Tetrachloroethene	51.06	5.0	50	0	102	79-120	0			
Toluene	51.73	5.0	50	0	103	80-120	0			
trans-1,2-Dichloroethene	48.45	5.0	50	0	96.9	78-120	0			

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78404** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	54.14	5.0	50	0	108	80-120	0
Trichloroethene	53.52	5.0	50	0	107	80-120	0
Vinyl chloride	47.42	2.0	50	0	94.8	70-127	0
Xylenes, Total	163	15	150	0	109	80-120	0
Surr: 1,2-Dichloroethane-d4	*51.69*	5.0	*50*	0	*103*	*70-125*	0
Surr: 4-Bromofluorobenzene	*57.5*	5.0	*50*	0	*115*	*72-125*	0
Surr: Dibromofluoromethane	*47.43*	5.0	*50*	0	*94.9*	*71-125*	0
Surr: Toluene-d8	*54.67*	5.0	*50*	0	*109*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78404** Instrument ID **VOA1** Method: **SW8260**

MS Sample ID: **0906487-01AMS** Units: **µg/L** Analysis Date: **6/23/2009 02:06 PM**

Client ID: Run ID: **VOA1_090623A** SeqNo: **1703523** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	479.7	50	500	0	95.9	80-120	0			
1,1,2,2-Tetrachloroethane	494.1	50	500	0	98.8	72-120	0			
1,1,2-Trichloroethane	462.4	50	500	0	92.5	80-120	0			
1,1-Dichloroethane	641.5	50	500	202.4	87.8	76-120	0			
1,1-Dichloroethene	1662	50	500	1341	64.1	73-124	0			S
1,2,4-Trimethylbenzene	456.7	50	500	0	91.3	68-123	0			
1,2-Dibromoethane	483.6	50	500	0	96.7	80-120	0			
1,2-Dichloroethane	522.9	50	500	5.53	103	78-120	0			
1,2-Dichloropropane	494.9	50	500	0	99	80-120	0			
1,3,5-Trimethylbenzene	450.8	50	500	0	90.2	80-120	0			
2-Butanone	1171	100	1000	0	117	58-132	0			
2-Hexanone	1039	100	1000	0	104	61-130	0			
4-Isopropyltoluene	429.1	50	500	0	85.8	79-120	0			
4-Methyl-2-pentanone	1036	100	1000	0	104	65-127	0			
Acetone	1079	100	1000	0	108	59-137	0			
Benzene	483.8	50	500	0	96.8	73-121	0			
Bromodichloromethane	488.5	50	500	0	97.7	80-120	0			
Bromoform	485.7	50	500	0	97.1	79-120	0			
Bromomethane	484.3	50	500	0	96.9	66-137	0			
Carbon disulfide	920.1	100	1000	0	92	68-141	0			
Carbon tetrachloride	438.1	50	500	0	87.6	75-124	0			
Chlorobenzene	449.4	50	500	0	89.9	80-120	0			
Chloroethane	421.1	50	500	0	84.2	76-121	0			
Chloroform	492.4	50	500	0	98.5	80-120	0			
Chloromethane	436.5	50	500	0	87.3	67-123	0			
cis-1,2-Dichloroethene	521.5	50	500	0	104	78-120	0			
cis-1,3-Dichloropropene	522.2	50	500	0	104	80-120	0			
Dibromochloromethane	505.1	50	500	0	101	80-120	0			
Ethylbenzene	446.9	50	500	0	89.4	80-120	0			
Isopropylbenzene	432.7	50	500	0	86.5	80-120	0			
m,p-Xylene	878.4	100	1000	0	87.8	78-121	0			
Methyl tert-butyl ether	555.5	50	500	0	111	73-121	0			
Methylene chloride	462.4	100	500	3.365	91.8	65-133	0			
n-Butylbenzene	420.9	50	500	0	84.2	77-120	0			
n-Propylbenzene	418	50	500	0	83.6	78-120	0			
Naphthalene	478.3	50	500	0	95.7	65-127	0			
o-Xylene	463.8	50	500	0	92.8	80-120	0			
sec-Butylbenzene	453.8	50	500	0	90.8	78-120	0			
Styrene	471.3	50	500	0	94.3	80-120	0			
Tetrachloroethene	418.8	50	500	5.649	82.6	79-120	0			
Toluene	446.2	50	500	0	89.2	80-120	0			
trans-1,2-Dichloroethene	443.4	50	500	0	88.7	78-120	0			

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

Batch ID: **R78404** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	530.9	50	500	0	106	80-120	0
Trichloroethene	501.4	50	500	3.157	99.7	80-120	0
Vinyl chloride	446.9	20	500	29.01	83.6	70-127	0
Xylenes, Total	1342	150	1500	0	89.5	80-120	0
Surr: 1,2-Dichloroethane-d4	*498.4*	50	*500*	0	*99.7*	*70-125*	0
Surr: 4-Bromofluorobenzene	*480.2*	50	*500*	0	*96*	*72-125*	0
Surr: Dibromofluoromethane	*532.9*	50	*500*	0	*107*	*71-125*	0
Surr: Toluene-d8	*491*	50	*500*	0	*98.2*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78404** Instrument ID **VOA1** Method: **SW8260**

MSD Sample ID: **0906487-01AMSD** Units: **µg/L** Analysis Date: **6/23/2009 02:32 PM**

Client ID: Run ID: **VOA1_090623A** SeqNo: **1703524** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	443.8	50	500	0	88.8	80-120	479.7	7.75	20	
1,1,2,2-Tetrachloroethane	483.3	50	500	0	96.7	72-120	494.1	2.21	20	
1,1,2-Trichloroethane	475.5	50	500	0	95.1	80-120	462.4	2.79	20	
1,1-Dichloroethane	665.1	50	500	202.4	92.6	76-120	641.5	3.62	20	
1,1-Dichloroethene	1556	50	500	1341	42.9	73-124	1662	6.6	20	S
1,2,4-Trimethylbenzene	474.3	50	500	0	94.9	68-123	456.7	3.78	20	
1,2-Dibromoethane	502.4	50	500	0	100	80-120	483.6	3.81	20	
1,2-Dichloroethane	526.5	50	500	5.53	104	78-120	522.9	0.67	20	
1,2-Dichloropropane	507.7	50	500	0	102	80-120	494.9	2.54	20	
1,3,5-Trimethylbenzene	454	50	500	0	90.8	80-120	450.8	0.687	20	
2-Butanone	1187	100	1000	0	119	58-132	1171	1.41	20	
2-Hexanone	1065	100	1000	0	106	61-130	1039	2.41	20	
4-Isopropyltoluene	442.7	50	500	0	88.5	79-120	429.1	3.13	20	
4-Methyl-2-pentanone	1132	100	1000	0	113	65-127	1036	8.85	20	
Acetone	1014	100	1000	0	101	59-137	1079	6.25	20	
Benzene	472.9	50	500	0	94.6	73-121	483.8	2.28	20	
Bromodichloromethane	495.7	50	500	0	99.1	80-120	488.5	1.46	20	
Bromoform	529.1	50	500	0	106	79-120	485.7	8.55	20	
Bromomethane	450	50	500	0	90	66-137	484.3	7.34	20	
Carbon disulfide	884.2	100	1000	0	88.4	68-141	920.1	3.98	20	
Carbon tetrachloride	443.3	50	500	0	88.7	75-124	438.1	1.17	20	
Chlorobenzene	460.7	50	500	0	92.1	80-120	449.4	2.49	20	
Chloroethane	391.3	50	500	0	78.3	76-121	421.1	7.34	20	
Chloroform	463.4	50	500	0	92.7	80-120	492.4	6.06	20	
Chloromethane	427.1	50	500	0	85.4	67-123	436.5	2.19	20	
cis-1,2-Dichloroethene	507.4	50	500	0	101	78-120	521.5	2.73	20	
cis-1,3-Dichloropropene	543.2	50	500	0	109	80-120	522.2	3.93	20	
Dibromochloromethane	515.3	50	500	0	103	80-120	505.1	2.01	20	
Ethylbenzene	442.9	50	500	0	88.6	80-120	446.9	0.908	20	
Isopropylbenzene	458.4	50	500	0	91.7	80-120	432.7	5.77	20	
m,p-Xylene	829.5	100	1000	0	83	78-121	878.4	5.72	20	
Methyl tert-butyl ether	559.8	50	500	0	112	73-121	555.5	0.764	20	
Methylene chloride	463.4	100	500	3.365	92	65-133	462.4	0.205	20	
n-Butylbenzene	419.7	50	500	0	83.9	77-120	420.9	0.282	20	
n-Propylbenzene	438.6	50	500	0	87.7	78-120	418	4.81	20	
Naphthalene	507	50	500	0	101	65-127	478.3	5.82	20	
o-Xylene	464.2	50	500	0	92.8	80-120	463.8	0.0875	20	
sec-Butylbenzene	441.3	50	500	0	88.3	78-120	453.8	2.78	20	
Styrene	489.4	50	500	0	97.9	80-120	471.3	3.77	20	
Tetrachloroethene	443.5	50	500	5.649	87.6	79-120	418.8	5.74	20	
Toluene	443.9	50	500	0	88.8	80-120	446.2	0.524	20	
trans-1,2-Dichloroethene	447.2	50	500	0	89.4	78-120	443.4	0.858	20	

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78404** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	538.5	50	500	0	108	80-120	530.9	1.41	20
Trichloroethene	501.8	50	500	3.157	99.7	80-120	501.4	0.0686	20
Vinyl chloride	426.5	20	500	29.01	79.5	70-127	446.9	4.68	20
Xylenes, Total	1294	150	1500	0	86.3	80-120	1342	3.68	20
Surr: 1,2-Dichloroethane-d4	*502*	50	*500*	0	*100*	*70-125*	498.4	*0.712*	*20*
Surr: 4-Bromofluorobenzene	*531.4*	50	*500*	0	*106*	*72-125*	480.2	*10.1*	*20*
Surr: Dibromofluoromethane	*493.3*	50	*500*	0	*98.7*	*71-125*	532.9	*7.72*	*20*
Surr: Toluene-d8	*525*	50	*500*	0	*105*	*75-125*	491	*6.69*	*20*

The following samples were analyzed in this batch: 0906452-01A

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

MBLK Sample ID: **VBLKW-062409-R78455** Units: **µg/L** Analysis Date: **6/24/2009 10:32 AM**

Client ID: Run ID: **VOA1_090624B** SeqNo: **1704552** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
2-Butanone	ND	10								
2-Hexanone	ND	10								
4-Isopropyltoluene	ND	5.0								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
Isopropylbenzene	0.9263	5.0								J
m,p-Xylene	ND	10								
Methyl tert-butyl ether	ND	5.0								
Methylene chloride	ND	10								
n-Butylbenzene	ND	5.0								
n-Propylbenzene	ND	5.0								
Naphthalene	ND	5.0								
o-Xylene	ND	5.0								
sec-Butylbenzene	ND	5.0								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,2-Dichloroethene	ND	5.0								

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Vinyl chloride	ND	2.0					
Xylenes, Total	ND	15					
Surr: 1,2-Dichloroethane-d4	*51*	5.0	*50*	0	*102*	*70-125*	0
Surr: 4-Bromofluorobenzene	*50.51*	5.0	*50*	0	*101*	*72-125*	0
Surr: Dibromofluoromethane	*52.86*	5.0	*50*	0	*106*	*71-125*	0
Surr: Toluene-d8	*47.37*	5.0	*50*	0	*94.7*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

LCS Sample ID: **VLCSW-062409-R78455** Units: **µg/L** Analysis Date: **6/24/2009 09:41 AM**

Client ID: Run ID: **VOA1_090624B** SeqNo: **1704551** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	53.79	5.0	50	0	108	80-120	0			
1,1,2,2-Tetrachloroethane	44.98	5.0	50	0	90	72-120	0			
1,1,2-Trichloroethane	45.42	5.0	50	0	90.8	80-120	0			
1,1-Dichloroethane	50.55	5.0	50	0	101	76-120	0			
1,1-Dichloroethene	49.01	5.0	50	0	98	73-124	0			
1,2,4-Trimethylbenzene	50.51	5.0	50	0	101	68-123	0			
1,2-Dibromoethane	44.29	5.0	50	0	88.6	80-120	0			
1,2-Dichloroethane	49.11	5.0	50	0	98.2	78-120	0			
1,2-Dichloropropane	48.3	5.0	50	0	96.6	80-120	0			
1,3,5-Trimethylbenzene	47.98	5.0	50	0	96	80-120	0			
2-Butanone	99.09	10	100	0	99.1	58-132	0			
2-Hexanone	90.94	10	100	0	90.9	61-130	0			
4-Isopropyltoluene	49.2	5.0	50	0	98.4	79-120	0			
4-Methyl-2-pentanone	96.85	10	100	0	96.8	65-127	0			
Acetone	86.75	10	100	0	86.7	59-137	0			
Benzene	48.16	5.0	50	0	96.3	73-121	0			
Bromodichloromethane	48.07	5.0	50	0	96.1	80-120	0			
Bromoform	48.75	5.0	50	0	97.5	79-120	0			
Bromomethane	49.49	5.0	50	0	99	66-137	0			
Carbon disulfide	99.86	10	100	0	99.9	68-141	0			
Carbon tetrachloride	50.62	5.0	50	0	101	75-124	0			
Chlorobenzene	48.1	5.0	50	0	96.2	80-120	0			
Chloroethane	43.53	5.0	50	0	87.1	76-121	0			
Chloroform	48.32	5.0	50	0	96.6	80-120	0			
Chloromethane	47.53	5.0	50	0	95.1	67-123	0			
cis-1,2-Dichloroethene	50.56	5.0	50	0	101	78-120	0			
cis-1,3-Dichloropropene	49.95	5.0	50	0	99.9	80-120	0			
Dibromochloromethane	50.32	5.0	50	0	101	80-120	0			
Ethylbenzene	47.96	5.0	50	0	95.9	80-120	0			
Isopropylbenzene	49.8	5.0	50	0	99.6	80-120	0			
m,p-Xylene	92.82	10	100	0	92.8	78-121	0			
Methyl tert-butyl ether	48.35	5.0	50	0	96.7	73-121	0			
Methylene chloride	48.3	10	50	0	96.6	65-133	0			
n-Butylbenzene	47.06	5.0	50	0	94.1	77-120	0			
n-Propylbenzene	47.6	5.0	50	0	95.2	78-120	0			
Naphthalene	46.79	5.0	50	0	93.6	65-127	0			
o-Xylene	47.66	5.0	50	0	95.3	80-120	0			
sec-Butylbenzene	49.83	5.0	50	0	99.7	78-120	0			
Styrene	48.16	5.0	50	0	96.3	80-120	0			
Tetrachloroethene	48.22	5.0	50	0	96.4	79-120	0			
Toluene	47.27	5.0	50	0	94.5	80-120	0			
trans-1,2-Dichloroethene	48.64	5.0	50	0	97.3	78-120	0			

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

QC BATCH REPORT

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	52.18	5.0	50	0	104	80-120	0
Trichloroethene	53.01	5.0	50	0	106	80-120	0
Vinyl chloride	44.95	2.0	50	0	89.9	70-127	0
Xylenes, Total	140.5	15	150	0	93.7	80-120	0
Surr: 1,2-Dichloroethane-d4	*49.32*	5.0	*50*	0	*98.6*	*70-125*	0
Surr: 4-Bromofluorobenzene	*53.42*	5.0	*50*	0	*107*	*72-125*	0
Surr: Dibromofluoromethane	*51.97*	5.0	*50*	0	*104*	*71-125*	0
Surr: Toluene-d8	*50.86*	5.0	*50*	0	*102*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

MS Sample ID: **0906452-02AMS** Units: **µg/L** Analysis Date: **6/24/2009 01:55 PM**

Client ID: **MW#12** Run ID: **VOA1_090624B** SeqNo: **1704556** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	50.79	5.0	50	0	102	80-120	0			
1,1,2,2-Tetrachloroethane	53.12	5.0	50	0	106	72-120	0			
1,1,2-Trichloroethane	46.4	5.0	50	0	92.8	80-120	0			
1,1-Dichloroethane	52.92	5.0	50	0	106	76-120	0			
1,1-Dichloroethene	50.45	5.0	50	0	101	73-124	0			
1,2,4-Trimethylbenzene	45.76	5.0	50	0	91.5	68-123	0			
1,2-Dibromoethane	48.09	5.0	50	0	96.2	80-120	0			
1,2-Dichloroethane	49.59	5.0	50	0	99.2	78-120	0			
1,2-Dichloropropane	48.63	5.0	50	0	97.3	80-120	0			
1,3,5-Trimethylbenzene	51.45	5.0	50	0	103	80-120	0			
2-Butanone	116.3	10	100	0	116	58-132	0			
2-Hexanone	104.2	10	100	0	104	61-130	0			
4-Isopropyltoluene	44.81	5.0	50	0	89.6	79-120	0			
4-Methyl-2-pentanone	103.7	10	100	0	104	65-127	0			
Acetone	101.1	10	100	0	101	59-137	0			
Benzene	46.36	5.0	50	0	92.7	73-121	0			
Bromodichloromethane	50.39	5.0	50	0	101	80-120	0			
Bromoform	48.67	5.0	50	0	97.3	79-120	0			
Bromomethane	59.01	5.0	50	0	118	66-137	0			
Carbon disulfide	99.31	10	100	0	99.3	68-141	0			
Carbon tetrachloride	47.94	5.0	50	0	95.9	75-124	0			
Chlorobenzene	47.11	5.0	50	0	94.2	80-120	0			
Chloroethane	45.18	5.0	50	0	90.4	76-121	0			
Chloroform	51.79	5.0	50	0	104	80-120	0			
Chloromethane	42.55	5.0	50	0	85.1	67-123	0			
cis-1,2-Dichloroethene	52.17	5.0	50	0	104	78-120	0			
cis-1,3-Dichloropropene	47.43	5.0	50	0	94.9	80-120	0			
Dibromochloromethane	49.37	5.0	50	0	98.7	80-120	0			
Ethylbenzene	46.69	5.0	50	0	93.4	80-120	0			
Isopropylbenzene	45.98	5.0	50	0.6308	90.7	80-120	0			
m,p-Xylene	90.16	10	100	0	90.2	78-121	0			
Methyl tert-butyl ether	58.38	5.0	50	0	117	73-121	0			
Methylene chloride	49.61	10	50	0	99.2	65-133	0			
n-Butylbenzene	48.24	5.0	50	0	96.5	77-120	0			
n-Propylbenzene	48.14	5.0	50	0	96.3	78-120	0			
Naphthalene	49.66	5.0	50	0	99.3	65-127	0			
o-Xylene	47.94	5.0	50	0	95.9	80-120	0			
sec-Butylbenzene	50.01	5.0	50	0	100	78-120	0			
Styrene	46.05	5.0	50	0	92.1	80-120	0			
Tetrachloroethene	45	5.0	50	0	90	79-120	0			
Toluene	45.29	5.0	50	0	90.6	80-120	0			
trans-1,2-Dichloroethene	52.19	5.0	50	0	104	78-120	0			

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

Batch ID: **R78455**	Instrument ID **VOA1**		Method: **SW8260**				
trans-1,3-Dichloropropene	54.28	5.0	50	0	109	80-120	0
Trichloroethene	50.51	5.0	50	0	101	80-120	0
Vinyl chloride	47.05	2.0	50	0	94.1	70-127	0
Xylenes, Total	138.1	15	150	0	92.1	80-120	0
Surr: 1,2-Dichloroethane-d4	*54.41*	5.0	*50*	0	*109*	*70-125*	0
Surr: 4-Bromofluorobenzene	*49.09*	5.0	*50*	0	*98.2*	*72-125*	0
Surr: Dibromofluoromethane	*53.22*	5.0	*50*	0	*106*	*71-125*	0
Surr: Toluene-d8	*48.87*	5.0	*50*	0	*97.7*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

MSD Sample ID: **0906452-02AMSD** Units: **µg/L** Analysis Date: **6/24/2009 02:21 PM**

Client ID: **MW#12** Run ID: **VOA1_090624B** SeqNo: **1704557** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	48.34	5.0	50	0	96.7	80-120	50.79	4.94	20	
1,1,2,2-Tetrachloroethane	51.09	5.0	50	0	102	72-120	53.12	3.89	20	
1,1,2-Trichloroethane	46.2	5.0	50	0	92.4	80-120	46.4	0.427	20	
1,1-Dichloroethane	49.05	5.0	50	0	98.1	76-120	52.92	7.58	20	
1,1-Dichloroethene	45.05	5.0	50	0	90.1	73-124	50.45	11.3	20	
1,2,4-Trimethylbenzene	49.83	5.0	50	0	99.7	68-123	45.76	8.5	20	
1,2-Dibromoethane	50.02	5.0	50	0	100	80-120	48.09	3.94	20	
1,2-Dichloroethane	46.78	5.0	50	0	93.6	78-120	49.59	5.84	20	
1,2-Dichloropropane	46.95	5.0	50	0	93.9	80-120	48.63	3.52	20	
1,3,5-Trimethylbenzene	49.63	5.0	50	0	99.3	80-120	51.45	3.59	20	
2-Butanone	116.2	10	100	0	116	58-132	116.3	0.0744	20	
2-Hexanone	104.7	10	100	0	105	61-130	104.2	0.433	20	
4-Isopropyltoluene	44.08	5.0	50	0	88.2	79-120	44.81	1.64	20	
4-Methyl-2-pentanone	109.2	10	100	0	109	65-127	103.7	5.23	20	
Acetone	97.66	10	100	0	97.7	59-137	101.1	3.44	20	
Benzene	44.38	5.0	50	0	88.8	73-121	46.36	4.36	20	
Bromodichloromethane	46.94	5.0	50	0	93.9	80-120	50.39	7.08	20	
Bromoform	48.71	5.0	50	0	97.4	79-120	48.67	0.0827	20	
Bromomethane	50.26	5.0	50	0	101	66-137	59.01	16	20	
Carbon disulfide	93.76	10	100	0	93.8	68-141	99.31	5.75	20	
Carbon tetrachloride	43.14	5.0	50	0	86.3	75-124	47.94	10.5	20	
Chlorobenzene	46.77	5.0	50	0	93.5	80-120	47.11	0.733	20	
Chloroethane	42.27	5.0	50	0	84.5	76-121	45.18	6.65	20	
Chloroform	49.11	5.0	50	0	98.2	80-120	51.79	5.32	20	
Chloromethane	45.41	5.0	50	0	90.8	67-123	42.55	6.51	20	
cis-1,2-Dichloroethene	51.31	5.0	50	0	103	78-120	52.17	1.67	20	
cis-1,3-Dichloropropene	48.71	5.0	50	0	97.4	80-120	47.43	2.67	20	
Dibromochloromethane	50.31	5.0	50	0	101	80-120	49.37	1.87	20	
Ethylbenzene	47.52	5.0	50	0	95	80-120	46.69	1.78	20	
Isopropylbenzene	45.46	5.0	50	0.6308	89.7	80-120	45.98	1.15	20	
m,p-Xylene	93.71	10	100	0	93.7	78-121	90.16	3.86	20	
Methyl tert-butyl ether	58.99	5.0	50	0	118	73-121	58.38	1.04	20	
Methylene chloride	47.42	10	50	0	94.8	65-133	49.61	4.51	20	
n-Butylbenzene	44.25	5.0	50	0	88.5	77-120	48.24	8.63	20	
n-Propylbenzene	49.59	5.0	50	0	99.2	78-120	48.14	2.96	20	
Naphthalene	51.68	5.0	50	0	103	65-127	49.66	4	20	
o-Xylene	49.28	5.0	50	0	98.6	80-120	47.94	2.75	20	
sec-Butylbenzene	48.14	5.0	50	0	96.3	78-120	50.01	3.81	20	
Styrene	48.2	5.0	50	0	96.4	80-120	46.05	4.56	20	
Tetrachloroethene	42.51	5.0	50	0	85	79-120	45	5.68	20	
Toluene	43.63	5.0	50	0	87.3	80-120	45.29	3.74	20	
trans-1,2-Dichloroethene	49.77	5.0	50	0	99.5	78-120	52.19	4.74	20	

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	50.81	5.0	50	0	102	80-120	54.28	6.59	20
Trichloroethene	45.27	5.0	50	0	90.5	80-120	50.51	10.9	20
Vinyl chloride	42.07	2.0	50	0	84.1	70-127	47.05	11.2	20
Xylenes, Total	143	15	150	0	95.3	80-120	138.1	3.48	20
Surr: 1,2-Dichloroethane-d4	*51.8*	5.0	*50*	0	*104*	*70-125*	54.41	*4.92*	*20*
Surr: 4-Bromofluorobenzene	*50.34*	5.0	*50*	0	*101*	*72-125*	49.09	*2.5*	*20*
Surr: Dibromofluoromethane	*52.44*	5.0	*50*	0	*105*	*71-125*	53.22	*1.47*	*20*
Surr: Toluene-d8	*49.47*	5.0	*50*	0	*98.9*	*75-125*	48.87	*1.23*	*20*

The following samples were analyzed in this batch:

0906452-02A	0906452-03A	0906452-04A
0906452-05A	0906452-06A	0906452-07A
0906452-08A	0906452-09A	0906452-10A

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78139** Instrument ID **WetChem** Method: **SM4500H+ B**

LCS Sample ID: **WLCSW1-061709-R78139** Units: **pH units** Analysis Date: **6/17/2009 03:00 PM**
Client ID: Run ID: **WETCHEM_090617J** SeqNo: **1697759** 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: **0906452-01ddup** Units: **pH units** Analysis Date: **6/17/2009 03:00 PM**
Client ID: **MW#5** Run ID: **WETCHEM_090617J** SeqNo: **1697771** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.83	0.10	0	0	0	0-0	7.82	0.128	20	H

The following samples were analyzed in this batch:

0906452-01D	0906452-02D	0906452-03D
0906452-04D	0906452-05D	0906452-06D
0906452-07D	0906452-08D	

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78140** Instrument ID **WetChem** Method: **M2510 B**

MBLK Sample ID: **WBLKW1-061709-R78140** Units: **µmhos/cm** Analysis Date: **6/17/2009 05:00 PM**
Client ID: Run ID: **WETCHEM_090617K** SeqNo: **1697775** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	ND	1.0								

LCS Sample ID: **WLCSW1-061709-R78140** Units: **µmhos/cm** Analysis Date: **6/17/2009 05:00 PM**
Client ID: Run ID: **WETCHEM_090617K** SeqNo: **1697776** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	1440	1.0	1412	0	102	80-120	0			

DUP Sample ID: **0906452-01ddup** Units: **µmhos/cm** Analysis Date: **6/17/2009 05:00 PM**
Client ID: **MW#5** Run ID: **WETCHEM_090617K** SeqNo: **1697794** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	1850	1.0	0	0	0		1820	1.63	20	

The following samples were analyzed in this batch:

0906452-01D	0906452-02D	0906452-03D
0906452-04D	0906452-05D	0906452-06D
0906452-07D	0906452-08D	

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78277** Instrument ID **Balance1** Method: **M2540C**

MBLK Sample ID: **BLANK-R78277** Units: **mg/L** Analysis Date: **6/19/2009 11:00 AM**
Client ID: Run ID: **BALANCE1_090619C** SeqNo: **1701166** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	ND	10								

LCS Sample ID: **LCS-R78277** Units: **mg/L** Analysis Date: **6/19/2009 11:00 AM**
Client ID: Run ID: **BALANCE1_090619C** SeqNo: **1701167** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	958	10	1000	0	95.8	85-115	0			

DUP Sample ID: **0906433-02ADUP** Units: **mg/L** Analysis Date: **6/19/2009 11:00 AM**
Client ID: Run ID: **BALANCE1_090619C** SeqNo: **1701154** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	1372	10	0	0	0	0-0	1336	2.66	20	

The following samples were analyzed in this batch:

0906452-01D	0906452-02D	0906452-03D
0906452-04D	0906452-05D	0906452-06D
0906452-07D	0906452-08D	

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78284** Instrument ID **ICS3000** Method: **E300**

MBLK Sample ID: **WBLKW4+-061909-R78284** Units: **mg/L** Analysis Date: **6/19/2009 05:02 PM**
Client ID: Run ID: **ICS3000_090619B** SeqNo: **1701230** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	0.04	0.10								J
Surr: Selenate (surr)	*5.084*	0.10	*5*	0	*102*	*85-115*	0			

LCS Sample ID: **WLCSW4+-061909-R78284** Units: **mg/L** Analysis Date: **6/19/2009 05:25 PM**
Client ID: Run ID: **ICS3000_090619B** SeqNo: **1701231** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	7.699	0.10	8	0	96.2	90-110	0			
Surr: Selenate (surr)	*4.996*	0.10	*5*	0	*99.9*	*85-115*	0			

MS Sample ID: **0906452-01BMS** Units: **mg/L** Analysis Date: **6/19/2009 06:11 PM**
Client ID: **MW#5** Run ID: **ICS3000_090619B** SeqNo: **1701235** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	23.12	0.50	20	3.314	99	80-120	0			
Surr: Selenate (surr)	*25.62*	0.50	*25*	0	*102*	*85-115*	0			

MS Sample ID: **0906467-05BMS** Units: **mg/L** Analysis Date: **6/20/2009 12:46 AM**
Client ID: Run ID: **ICS3000_090619B** SeqNo: **1701269** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	3.672	0.10	4	0.045	90.7	80-120	0			
Surr: Selenate (surr)	*4.994*	0.10	*5*	0	*99.9*	*85-115*	0			

MSD Sample ID: **0906452-01BMSD** Units: **mg/L** Analysis Date: **6/19/2009 06:35 PM**
Client ID: **MW#5** Run ID: **ICS3000_090619B** SeqNo: **1701237** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	23.13	0.50	20	3.314	99.1	80-120	23.12	0.013	20	
Surr: Selenate (surr)	*25.55*	0.50	*25*	0	*102*	*85-115*	25.62	*0.27*	*20*	

MSD Sample ID: **0906467-05BMSD** Units: **mg/L** Analysis Date: **6/20/2009 01:10 AM**
Client ID: Run ID: **ICS3000_090619B** SeqNo: **1701270** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	3.642	0.10	4	0.045	89.9	80-120	3.672	0.82	20	
Surr: Selenate (surr)	*5.01*	0.10	*5*	0	*100*	*85-115*	4.994	*0.32*	*20*	

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78284** Instrument ID **ICS3000** Method: **E300**

The following samples were analyzed in this batch:

0906452-01B	0906452-02B	0906452-03B
0906452-04B	0906452-05B	0906452-06B
0906452-07B	0906452-08B	

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78313** Instrument ID **ICS3000** Method: **E300**

MBLK Sample ID: **WBLKW1-062209-R78313** Units: **mg/L** Analysis Date: **6/22/2009 10:58 AM**
Client ID: Run ID: **ICS3000_090622A** SeqNo: **1701597** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Sulfate	ND	0.50								
Surr: Selenate (surr)	*4.573*	0.10	*5*	0	*91.5*	*85-115*	0			

LCS Sample ID: **WLCSW1-062209-R78313** Units: **mg/L** Analysis Date: **6/22/2009 11:44 AM**
Client ID: Run ID: **ICS3000_090622A** SeqNo: **1701598** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.48	0.50	20	0	97.4	90-110	0			
Fluoride	3.968	0.10	4	0	99.2	90-110	0			
Sulfate	18.94	0.50	20	0	94.7	90-110	0			
Surr: Selenate (surr)	*4.486*	0.10	*5*	0	*89.7*	*85-115*	0			

MS Sample ID: **0906467-05DMS** Units: **mg/L** Analysis Date: **6/22/2009 05:56 PM**
Client ID: Run ID: **ICS3000_090622A** SeqNo: **1701614** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	21.56	0.50	10	11.98	95.8	80-120	0			
Fluoride	2.001	0.10	2	-0.076	104	80-120	0			
Sulfate	9.337	0.50	10	0.127	92.1	80-120	0			
Surr: Selenate (surr)	*4.717*	0.10	*5*	0	*94.3*	*85-115*	0			

MS Sample ID: **0906452-01DMS** Units: **mg/L** Analysis Date: **6/22/2009 07:06 PM**
Client ID: **MW#5** Run ID: **ICS3000_090622A** SeqNo: **1701617** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	278.7	5.0	100	186.3	92.5	80-120	0			
Fluoride	21.47	1.0	20	0.523	105	80-120	0			
Sulfate	223.1	5.0	100	130.8	92.3	80-120	0			
Surr: Selenate (surr)	*47.96*	1.0	*50*	0	*95.9*	*85-115*	0			

MSD Sample ID: **0906467-05DMSD** Units: **mg/L** Analysis Date: **6/22/2009 06:19 PM**
Client ID: Run ID: **ICS3000_090622A** SeqNo: **1701615** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	21.55	0.50	10	11.98	95.8	80-120	21.56	0.0232	20	
Fluoride	2.024	0.10	2	-0.076	105	80-120	2.001	1.14	20	
Sulfate	9.417	0.50	10	0.127	92.9	80-120	9.337	0.853	20	
Surr: Selenate (surr)	*4.733*	0.10	*5*	0	*94.7*	*85-115*	4.717	*0.339*	*20*	

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78313** Instrument ID **ICS3000** Method: **E300**

MSD Sample ID: **0906452-01DMSD** Units: **mg/L** Analysis Date: **6/22/2009 07:29 PM**

Client ID: **MW#5** Run ID: **ICS3000_090622A** SeqNo: **1701618** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	278.7	5.0	100	186.3	92.5	80-120	278.7	0.00753	20	
Fluoride	21.48	1.0	20	0.523	105	80-120	21.47	0.0279	20	
Sulfate	223.4	5.0	100	130.8	92.6	80-120	223.1	0.137	20	
Surr: Selenate (surr)	*48.03*	1.0	*50*	0	*96.1*	*85-115*	47.96	*0.144*	*20*	

The following samples were analyzed in this batch:

0906452-01D	0906452-02D	0906452-03D
0906452-04D	0906452-05D	0906452-06D
0906452-07D	0906452-08D	

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78439** Instrument ID **WetChem** Method: **SM2320B**

MBLK Sample ID: **WBLKW1-062409-R78439** Units: **mg/L** Analysis Date: **6/24/2009 03:00 PM**
Client ID: Run ID: **WETCHEM_090624H** SeqNo: **1704280** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	5.0								
Alkalinity, Carbonate (As CaCO3)	ND	5.0								
Alkalinity, Hydroxide (As CaCO3)	ND	5.0								
Alkalinity, Total (As CaCO3)	ND	5.0								

LCS Sample ID: **WLCSW1-062409-R78439** Units: **mg/L** Analysis Date: **6/24/2009 03:00 PM**
Client ID: Run ID: **WETCHEM_090624H** SeqNo: **1704281** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	1043	5.0	1000	0	104	80-120	0			
Alkalinity, Total (As CaCO3)	1043	5.0	1000	0	104	80-120	0			

DUP Sample ID: **0906510-01cdup** Units: **mg/L** Analysis Date: **6/24/2009 03:00 PM**
Client ID: Run ID: **WETCHEM_090624H** SeqNo: **1704292** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	170	5.0	0	0	0	0-0	170	0	20	
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	170	5.0	0	0	0	0-0	170	0	20	

The following samples were analyzed in this batch:

0906452-01D	0906452-02D	0906452-03D
0906452-04D	0906452-05D	0906452-06D
0906452-07D	0906452-08D	

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

ALS Laboratory Group

Date: 30-Jun-09

Client: Navajo Refining Company
Project: Navajo Refinery Semi-Annual
WorkOrder: 0906452

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 Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Units Reported	Description
µmhos/cm	
mg/L	Milligrams per Liter
pH units	

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Chain of Custody Form

Page 1 of 1

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

ALS Project Manager: | ALS Work Order #: 0906052

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Navajo ~~Artesia~~ Refinery Semi-Annual LEA	A	VOC (8260) Select Dry B
Work Order		Project Number		B	~~TPH (8015M) GRO, DRO, ORO~~ Total Mercury
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	SVOC (8270) LL TCL
Send Report To	Darrell Moore	Invoice Attn	Darrell Moore	D	Dissolved Metals (6020/7000) Select
Address	P.O. Box 159	Address	P.O. Box 159	E	Anions (300) Cl, F, SO4, NO3, NO2
				F	Alkalinity
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	pH/Specific Conductivity
Phone	(505) 748-3311	Phone	(505) 748-3311	H	TDS
Fax	(505) 746-5421	Fax	(505) 746-5421	I	Nitrate/Nitrite (300)
e-Mail Address LEA	dgboyer@SESI-NM.com	e-Mail Address	Darrell.Moore@hollycorp.com	J	Cations

No.	Sample Description	Date	Time	Matrix	Pres.	#Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW #5	06-16-09	0920	GW	1,2,3,8	8	X	X	X	X	X	X	X	X	X	X	
2	MW #12		1025		1,2,3,8	8	X	X	X	X	X	X	X	X	X	X	
3	MW #14		1115		1,2,3,8	8	X	X	X	X	X	X	X	X	X	X	
4	MW #13		1230		1,2,3,8	8	X	X	X	X	X	X	X	X	X	X	
5	MW #4		1320		1,2,3,8	8	X	X	X	X	X	X	X	X	X	X	
6	MW #3		1350		1,2,3,8	8	X	X	X	X	X	X	X	X	X	X	
7	MW #9		1420		1,2,3,8	8	X	X	X	X	X	X	X	X	X	X	
8	MW #10		1500		1,2,3,8	8	X	X	X	X	X	X	X	X	X	X	
9	Trip Blank (3)		1650		1,8	6	X										
10																	

Sampler(s) Please Print & Sign: SOSA JOSE SUAREZ

Shipment Method: FED-X

Required Turnaround Time: (Check Box) ☐ Other ☑ Std 10 W/K Days ☐ 5 W/K Days ☐ 2 W/K Days ☐ 24 Hour

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Notes:
	06-16-09	1650		10 Work Days TAT.
Relinquished by:	Date: 6/20/09	Time: 08:45	Received by (Laboratory):	

Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Cooler ID | Cooler Temp.

QC Package: (Check One Box Below)
- ☑ Level II Std QC
- ☐ Level III Std QC/Raw Data
- ☐ Level IV SW846/CLP
- ☐ Other
- ☐ TRRP CheckList
- ☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 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.

☐ ALS Laboratory Group
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Chain of Custody Form

Page 1 of 1

☐ ALS Laboratory Group
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Holland, MI 49424-9263
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0906452

ALS Project Manager: | ALS Work Order #: 0906452

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Navajo Artesia Refinery Semi-Annual EGA	A	VOC (8260) Select
Work Order		Project Number		B	TPH (8015M) GRO, DRO, ORO
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	SVOC (8270) LL TCL
Send Report To	Darrell Moore	Invoice Attn	Darrell Moore	D	Dissolved Metals (6020/7000) Select
Address	P.O. Box 159	Address	P.O. Box 159	E	Anions (300) Cl, F, SO4, NO3, NO2
				F	Alkalinity
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	pH/Specific Conductivity
Phone	(505) 748-3311	Phone	(505) 748-3311	H	TDS
Fax	(505) 746-5421	Fax	(505) 746-5421	I	Nitrate/Nitrite (300)
e-Mail Address	dgboyer@SESI-NM.com	e-Mail Address		J	Cations

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW #5	06-02-09	0920	H2O	1,2,3,8	8	X		X	X	X	X	X	X	X	X	
2	MW #12	06-02-09	1025	H2O	1,2,3,8	8	X		X	X	X	X	X	X	X	X	
3	MW #14	06-02-09	1115	H2O	1,2,3,8	8	X		X	X	X	X	X	X	X	X	
4	MW #13	06-02-09	1230		1,2,3,8	8	X		X	X	X	X	X	X	X	X	
5	MW #4 1320	06-02-09	~~1220~~ SS		1,2,3,8	8	X		X	X	X	X	X	X	X	X	
6	MW #3	06-02-09	1350		1,2,3,8	8	X		X	X	X	X	X	X	X	X	
7	MW #9	06-02-09	1420		1,2,3,8	8	X		X	X	X	X	X	X	X	X	
8	MW #10	06-02-09	1500		1,2,3,8	8	X		X	X	X	X	X	X	X	X	
9	TRIP BLANK (3)	06-02-09	1650	H2O	1,8	6	X		X SS								
10																	

Sampler(s) Please Print & Sign: SOSA SOSA

Shipment Method: FED-X

Required Turnaround Time: (Check Box): ☑ Std 10 WK Days ☐ 5 WK Days ☐ Other ☐ 2 WK Days ☐ 24 Hour

Results Due Date:

Relinquished by: SOSA — Date: 06-02-09 — Time: 1650 — Received by:

Relinquished by: — Date: 06/17/09 — Time: 0715 — Received by (Laboratory):

Notes: 10 Work Days TAT.

Logged by (Laboratory): — Date: — Time: — Checked by (Laboratory):

Cooler ID: — Cooler Temp.:

QC Package: (Check One Box Below)
- ☑ Level II Std QC
- ☐ Level III Std QC/Raw Data
- ☐ Level IV SW846/CLP
- ☐ Other _____
- ☐ TRRP Checklist
- ☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 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.

ALS Laboratory Group

Sample Receipt Checklist

Client Name: **NAVAJO REFINING** Date/Time Received: **17-Jun-09 09:15**

Work Order: **0906452** Received by: **RDH**

Checklist completed by Raymond N Gamboa 17-Jun-09 Reviewed by: Jay Lynn F Thibault 17-Jun-09
eSignature Date eSignature Date

Matrices: Water
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, 3.2c, 3.6c	002	
Cooler(s)/Kit(s):	2512, 2497, 2515		
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: Logged in samples with the date of collection being 6/17/09, not 6/2/09 as indicated on the COC. Received only two sets of trip blanks, not three as indicated on the COC.

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

W.O. # 1906452

...ll This portion can be removed for recipient's records.

Date 06-02-09 FedEx Tracking Number 869790880538

Sender's Name BOYER, DAVE Phone 575 397-0510

Company SAFETY & ENVIRONMENTAL SOLUTIONS

Address 703 E CLINTON Dept./Floor/Suite/Room

City HOBBS State NM ZIP 88240

Your Internal Billing Reference

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

CU**STODY SEAL** 2512

Date: 06-02-0

Time: 1650

Name: SS

Company: SE

Seal Broken By:

Date: 6/17/09

...ll This portion can be removed for recipient's records.

Date 06-02-09 FedEx Tracking Number 869790880549

Sender's Name BOYER, DAVE Phone 575 397-0510

Company SAFETY & ENVIRONMENTAL SOLUTIONS

Address 703 E CLINTON Dept./Floor/Suite/Room

City HOBBS NM State NM ZIP 88240

Your Internal Billing Reference

CUSTODY SEAL

DATE 06-02-09

SIGNATURE Sose Jorge

QEC 2497

Quality Environmental Co

800-255-3950

...ll This portion can be removed for recipient's records.

Date 06-02-09 FedEx Tracking Number 869790880550

Sender's Name BOYER, DAVE Phone 575 397-0510

Company SAFETY & ENVIRONMENTAL SOLUTIONS

Address 703 E. CLINTON Dept./Floor/Suite/Room

City HOBBS State N.M. ZIP 88240

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

Date: 06

Name:

Company:

CUSTODY SEAL 2515

Time: 1650

Seal Broken By:

Date: 6/17/09

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

06-Jul-2009

Darrell Moore
Navajo Refining Company
PO Box 159
Artesia, NM 88211

Tel: (575) 746-5281
Fax: (505) 746-5421

Re: Navajo Lea Refinery Semi-Annual

Work Order: **0906543**

Dear Darrell,

ALS Laboratory Group received 12 samples on 20-Jun-2009 08:45 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 92.

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

ACCREDITED IN ACCORDANCE WITH nelac

Certificate No: T104704231-08-TX

ALS Laboratory Group

Date: 06-Jul-09

Client: Navajo Refining Company
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
0906543-01	MW-6	Water		6/18/2009 12:40	6/20/2009 08:45	☐
0906543-02	MW #8	Water		6/18/2009 14:30	6/20/2009 08:45	☐
0906543-03	MW #11	Water		6/18/2009 15:15	6/20/2009 08:45	☐
0906543-04	North Well	Water		6/18/2009 16:00	6/20/2009 08:45	☐
0906543-05	East Well	Water		6/18/2009 16:20	6/20/2009 08:45	☐
0906543-06	Duplicate #1	Water			6/20/2009 08:45	☐
0906543-07	MW #1	Water		6/19/2009 14:00	6/20/2009 08:45	☐
0906543-08	MW #7	Water		6/19/2009 15:15	6/20/2009 08:45	☐
0906543-09	RW-1	Water		6/19/2009 16:16	6/20/2009 08:45	☐
0906543-10	Trip Blank 2400	Water		6/19/2009 17:00	6/20/2009 08:45	☐
0906543-11	Trip Blank 1837	Water		6/19/2009 17:00	6/20/2009 08:45	☐
0906543-12	Trip Blank 2354	Water		6/19/2009 17:00	6/20/2009 08:45	☐

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW-6
Lab ID: 0906543-01
Collection Date: 6/18/2009 12:40 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/30/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/30/2009 04:02 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/29/2009**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	6/30/2009 05:03 AM
Arsenic	**0.0201**		**0.00500**	**mg/L**	1	6/30/2009 05:03 AM
Barium	**0.186**		**0.00500**	**mg/L**	1	6/30/2009 05:03 AM
Boron	**0.175**		**0.0200**	**mg/L**	1	6/30/2009 05:03 AM
Cadmium	ND		0.00200	mg/L	1	6/30/2009 05:03 AM
Calcium	**100**		**0.500**	**mg/L**	1	6/30/2009 05:03 AM
Chromium	ND		0.00500	mg/L	1	6/30/2009 05:03 AM
Cobalt	ND		0.00500	mg/L	1	6/30/2009 05:03 AM
Copper	ND		0.00500	mg/L	1	6/30/2009 05:03 AM
Iron	**0.418**		**0.200**	**mg/L**	1	6/30/2009 05:03 AM
Lead	ND		0.00500	mg/L	1	6/30/2009 05:03 AM
Magnesium	**14.5**		**0.400**	**mg/L**	2	7/1/2009 11:18 PM
Manganese	**2.86**		**0.0100**	**mg/L**	2	7/1/2009 11:18 PM
Molybdenum	ND		0.00500	mg/L	1	6/30/2009 05:03 AM
Nickel	ND		0.00500	mg/L	1	6/30/2009 05:03 AM
Potassium	**2.76**		**0.400**	**mg/L**	2	7/2/2009 01:17 PM
Selenium	ND		0.00500	mg/L	1	6/30/2009 05:03 AM
Silver	ND		0.00500	mg/L	1	6/30/2009 05:03 AM
Sodium	**105**		**0.400**	**mg/L**	2	7/1/2009 11:18 PM
Zinc	**0.00996**		**0.00500**	**mg/L**	1	6/30/2009 05:03 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	7/1/2009 06:02 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
2-Chlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
2-Methylnaphthalene	**0.0017**		**0.00020**	**mg/L**	1	7/1/2009 06:02 PM
2-Methylphenol	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
2-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
2-Nitrophenol	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
3&4-Methylphenol	**0.0015**		**0.00020**	**mg/L**	1	7/1/2009 06:02 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW-6
Lab ID: 0906543-01
Collection Date: 6/18/2009 12:40 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
3-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
4-Chloroaniline	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
4-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
4-Nitrophenol	ND		0.0010	mg/L	1	7/1/2009 06:02 PM
Acenaphthene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Acenaphthylene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Acetophenone	**0.021**		**0.00080**	**mg/L**	4	7/2/2009 03:32 PM
Anthracene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Atrazine	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Benzaldehyde	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Bis(2-ethylhexyl)phthalate	**0.0011**		**0.00020**	**mg/L**	1	7/1/2009 06:02 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Caprolactam	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Carbazole	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Chrysene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Dibenzofuran	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Diethyl phthalate	**0.0051**		**0.00020**	**mg/L**	1	7/1/2009 06:02 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Fluoranthene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Fluorene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Hexachloroethane	ND		0.00020	mg/L	1	7/1/2009 06:02 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW-6
Collection Date: 6/18/2009 12:40 PM

Work Order: 0906543
Lab ID: 0906543-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Isophorone	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Naphthalene	**0.0024**		**0.00020**	**mg/L**	1	7/1/2009 06:02 PM
Nitrobenzene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Pentachlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Phenanthrene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Phenol	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Pyrene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Surr: 2,4,6-Tribromophenol	*56.3*		*34-129*	*%REC*	4	7/2/2009 03:32 PM
Surr: 2,4,6-Tribromophenol	*44.1*		*34-129*	*%REC*	1	7/1/2009 06:02 PM
Surr: 2-Fluorobiphenyl	*51.8*		*40-125*	*%REC*	1	7/1/2009 06:02 PM
Surr: 2-Fluorobiphenyl	*70.4*		*40-125*	*%REC*	4	7/2/2009 03:32 PM
Surr: 2-Fluorophenol	*58.7*		*20-120*	*%REC*	1	7/1/2009 06:02 PM
Surr: 2-Fluorophenol	*52.0*		*20-120*	*%REC*	4	7/2/2009 03:32 PM
Surr: 4-Terphenyl-d14	*67.7*		*40-135*	*%REC*	1	7/1/2009 06:02 PM
Surr: 4-Terphenyl-d14	*66.9*		*40-135*	*%REC*	4	7/2/2009 03:32 PM
Surr: Nitrobenzene-d5	*81.6*		*41-120*	*%REC*	4	7/2/2009 03:32 PM
Surr: Nitrobenzene-d5	*51.6*		*41-120*	*%REC*	1	7/1/2009 06:02 PM
Surr: Phenol-d6	*49.9*		*20-120*	*%REC*	1	7/1/2009 06:02 PM
Surr: Phenol-d6	*53.8*		*20-120*	*%REC*	4	7/2/2009 03:32 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
1,2,4-Trimethylbenzene	**0.0058**		**0.0050**	**mg/L**	1	6/26/2009 05:37 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
2-Butanone	**0.30**		**0.010**	**mg/L**	1	6/26/2009 05:37 PM
2-Hexanone	ND		0.010	mg/L	1	6/26/2009 05:37 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/26/2009 05:37 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW-6
Lab ID: 0906543-01
Collection Date: 6/18/2009 12:40 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Acetone	**0.059**		**0.010**	**mg/L**	1	6/26/2009 05:37 PM
Benzene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Bromoform	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Bromomethane	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Carbon disulfide	ND		0.010	mg/L	1	6/26/2009 05:37 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Chloroethane	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Chloroform	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Chloromethane	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
m,p-Xylene	ND		0.010	mg/L	1	6/26/2009 05:37 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Methylene chloride	ND		0.010	mg/L	1	6/26/2009 05:37 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Naphthalene	**0.0075**		**0.0050**	**mg/L**	1	6/26/2009 05:37 PM
o-Xylene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Styrene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Toluene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Trichloroethene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/26/2009 05:37 PM
Xylenes, Total	ND		0.015	mg/L	1	6/26/2009 05:37 PM
Surr: 1,2-Dichloroethane-d4	*100*		*70-125*	*%REC*	1	6/26/2009 05:37 PM
Surr: 4-Bromofluorobenzene	*97.8*		*72-125*	*%REC*	1	6/26/2009 05:37 PM
Surr: Dibromofluoromethane	*106*		*71-125*	*%REC*	1	6/26/2009 05:37 PM
Surr: Toluene-d8	*98.3*		*75-125*	*%REC*	1	6/26/2009 05:37 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**188**		**2.50**	**mg/L**	5	6/24/2009 11:23 AM
Fluoride	**0.113**		**0.100**	**mg/L**	1	6/23/2009 06:38 PM
Sulfate	**101**		**2.50**	**mg/L**	5	6/24/2009 11:23 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW-6
Lab ID: 0906543-01
Collection Date: 6/18/2009 12:40 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Nitrate/Nitrite (as N)	**0.678**		**0.100**	**mg/L**	1	6/24/2009 07:20 PM
Surr: Selenate (surr)	*96.9*		*85-115*	*%REC*	1	6/24/2009 07:20 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	5	6/24/2009 11:23 AM
Surr: Selenate (surr)	*96.9*		*85-115*	*%REC*	1	6/23/2009 06:38 PM
ALKALINITY			**SM2320B**			Analyst: **RPM**
Alkalinity, Bicarbonate (As CaCO3)	**246**		**5.00**	**mg/L**	1	6/30/2009 12:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 12:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 12:00 PM
Alkalinity, Total (As CaCO3)	**246**		**5.00**	**mg/L**	1	6/30/2009 12:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**1,370**		**1.00**	**µmhos/cm**	1	6/22/2009 10:00 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**6.78**	H	**0.100**	**pH units**	1	6/22/2009 01:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**844**		**10.0**	**mg/L**	1	6/23/2009 03:00 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #8
Lab ID: 0906543-02
Collection Date: 6/18/2009 02:30 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/30/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/30/2009 04:11 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/29/2009**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	6/30/2009 05:09 AM
Arsenic	**0.00501**		**0.00500**	**mg/L**	1	6/30/2009 05:09 AM
Barium	**0.181**		**0.00500**	**mg/L**	1	6/30/2009 05:09 AM
Boron	**0.228**		**0.0200**	**mg/L**	1	6/30/2009 05:09 AM
Cadmium	ND		0.00200	mg/L	1	6/30/2009 05:09 AM
Calcium	**107**		**0.500**	**mg/L**	1	6/30/2009 05:09 AM
Chromium	ND		0.00500	mg/L	1	6/30/2009 05:09 AM
Cobalt	ND		0.00500	mg/L	1	6/30/2009 05:09 AM
Copper	ND		0.00500	mg/L	1	6/30/2009 05:09 AM
Iron	ND		0.200	mg/L	1	6/30/2009 05:09 AM
Lead	ND		0.00500	mg/L	1	6/30/2009 05:09 AM
Magnesium	**15.1**		**0.400**	**mg/L**	2	7/1/2009 11:25 PM
Manganese	**0.00919**		**0.00500**	**mg/L**	1	6/30/2009 05:09 AM
Molybdenum	ND		0.00500	mg/L	1	6/30/2009 05:09 AM
Nickel	ND		0.00500	mg/L	1	6/30/2009 05:09 AM
Potassium	**4.16**		**0.400**	**mg/L**	2	7/2/2009 01:41 PM
Selenium	ND		0.00500	mg/L	1	6/30/2009 05:09 AM
Silver	ND		0.00500	mg/L	1	6/30/2009 05:09 AM
Sodium	**136**		**0.400**	**mg/L**	2	7/1/2009 11:25 PM
Zinc	**0.0458**		**0.00500**	**mg/L**	1	6/30/2009 05:09 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	7/1/2009 06:23 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
2-Chlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
2-Methylphenol	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
2-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
2-Nitrophenol	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
3&4-Methylphenol	ND		0.00020	mg/L	1	7/1/2009 06:23 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #8
Lab ID: 0906543-02
Collection Date: 6/18/2009 02:30 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
3-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
4-Chloroaniline	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
4-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
4-Nitrophenol	ND		0.0010	mg/L	1	7/1/2009 06:23 PM
Acenaphthene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Acenaphthylene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Acetophenone	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Anthracene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Atrazine	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Benzaldehyde	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Bis(2-ethylhexyl)phthalate	**0.00076**		**0.00020**	**mg/L**	1	7/1/2009 06:23 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Caprolactam	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Carbazole	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Chrysene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Dibenzofuran	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Diethyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Fluoranthene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Fluorene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Hexachloroethane	ND		0.00020	mg/L	1	7/1/2009 06:23 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #8
Lab ID: 0906543-02
Collection Date: 6/18/2009 02:30 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Isophorone	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Naphthalene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Nitrobenzene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Pentachlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Phenanthrene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Phenol	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Pyrene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Surr: 2,4,6-Tribromophenol	*63.2*		*34-129*	*%REC*	1	7/1/2009 06:23 PM
Surr: 2-Fluorobiphenyl	*71.7*		*40-125*	*%REC*	1	7/1/2009 06:23 PM
Surr: 2-Fluorophenol	*56.1*		*20-120*	*%REC*	1	7/1/2009 06:23 PM
Surr: 4-Terphenyl-d14	*69.1*		*40-135*	*%REC*	1	7/1/2009 06:23 PM
Surr: Nitrobenzene-d5	*72.5*		*41-120*	*%REC*	1	7/1/2009 06:23 PM
Surr: Phenol-d6	*73.1*		*20-120*	*%REC*	1	7/1/2009 06:23 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
2-Butanone	ND		0.010	mg/L	1	6/26/2009 06:02 PM
2-Hexanone	ND		0.010	mg/L	1	6/26/2009 06:02 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/26/2009 06:02 PM
Acetone	ND		0.010	mg/L	1	6/26/2009 06:02 PM
Benzene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Bromoform	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Bromomethane	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Carbon disulfide	ND		0.010	mg/L	1	6/26/2009 06:02 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW #8
Collection Date: 6/18/2009 02:30 PM

Work Order: 0906543
Lab ID: 0906543-02
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Chloroethane	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Chloroform	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Chloromethane	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
m,p-Xylene	ND		0.010	mg/L	1	6/26/2009 06:02 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Methylene chloride	ND		0.010	mg/L	1	6/26/2009 06:02 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Naphthalene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
o-Xylene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Styrene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Toluene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Trichloroethene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/26/2009 06:02 PM
Xylenes, Total	ND		0.015	mg/L	1	6/26/2009 06:02 PM
Surr: 1,2-Dichloroethane-d4	*104*		*70-125*	*%REC*	1	6/26/2009 06:02 PM
Surr: 4-Bromofluorobenzene	*94.4*		*72-125*	*%REC*	1	6/26/2009 06:02 PM
Surr: Dibromofluoromethane	*105*		*71-125*	*%REC*	1	6/26/2009 06:02 PM
Surr: Toluene-d8	*96.2*		*75-125*	*%REC*	1	6/26/2009 06:02 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**219**		**2.50**	**mg/L**	5	6/24/2009 11:46 AM
Fluoride	**0.730**		**0.100**	**mg/L**	1	6/23/2009 07:01 PM
Sulfate	**73.3**		**2.50**	**mg/L**	5	6/24/2009 11:46 AM
Nitrate/Nitrite (as N)	**3.46**		**0.100**	**mg/L**	1	6/24/2009 07:43 PM
Surr: Selenate (surr)	*97.7*		*85-115*	*%REC*	5	6/24/2009 11:46 AM
Surr: Selenate (surr)	*98.2*		*85-115*	*%REC*	1	6/23/2009 07:01 PM
Surr: Selenate (surr)	*99.5*		*85-115*	*%REC*	1	6/24/2009 07:43 PM
ALKALINITY			**SM2320B**			Analyst: **RPM**

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #8
Lab ID: 0906543-02
Collection Date: 6/18/2009 02:30 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**284**		**5.00**	**mg/L**	1	6/30/2009 12:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 12:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 12:00 PM
Alkalinity, Total (As CaCO3)	**284**		**5.00**	**mg/L**	1	6/30/2009 12:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**1,470**		**1.00**	**µmhos/cm**	1	6/22/2009 10:00 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**6.97**	H	**0.100**	**pH units**	1	6/22/2009 01:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**798**		**10.0**	**mg/L**	1	6/23/2009 03:00 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW #11
Collection Date: 6/18/2009 03:15 PM

Work Order: 0906543
Lab ID: 0906543-03
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/30/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/30/2009 04:13 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/29/2009**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	6/30/2009 05:16 AM
Arsenic	ND		0.00500	mg/L	1	6/30/2009 05:16 AM
Barium	**0.194**		**0.00500**	**mg/L**	1	6/30/2009 05:16 AM
Boron	**0.199**		**0.0200**	**mg/L**	1	6/30/2009 05:16 AM
Cadmium	ND		0.00200	mg/L	1	6/30/2009 05:16 AM
Calcium	**176**		**0.500**	**mg/L**	1	6/30/2009 05:16 AM
Chromium	ND		0.00500	mg/L	1	6/30/2009 05:16 AM
Cobalt	ND		0.00500	mg/L	1	6/30/2009 05:16 AM
Copper	ND		0.00500	mg/L	1	6/30/2009 05:16 AM
Iron	**0.571**		**0.200**	**mg/L**	1	6/30/2009 05:16 AM
Lead	ND		0.00500	mg/L	1	6/30/2009 05:16 AM
Magnesium	**27.0**		**0.400**	**mg/L**	2	7/1/2009 11:31 PM
Manganese	**0.387**		**0.00500**	**mg/L**	1	6/30/2009 05:16 AM
Molybdenum	ND		0.00500	mg/L	1	6/30/2009 05:16 AM
Nickel	ND		0.00500	mg/L	1	6/30/2009 05:16 AM
Potassium	**3.51**		**0.400**	**mg/L**	2	7/2/2009 01:47 PM
Selenium	ND		0.00500	mg/L	1	6/30/2009 05:16 AM
Silver	ND		0.00500	mg/L	1	6/30/2009 05:16 AM
Sodium	**81.4**		**0.400**	**mg/L**	2	7/1/2009 11:31 PM
Zinc	**0.0212**		**0.00500**	**mg/L**	1	6/30/2009 05:16 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	7/1/2009 06:44 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
2-Chlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
2-Methylphenol	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
2-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
2-Nitrophenol	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
3&4-Methylphenol	ND		0.00020	mg/L	1	7/1/2009 06:44 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #11
Lab ID: 0906543-03
Collection Date: 6/18/2009 03:15 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
3-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
4-Chloroaniline	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
4-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
4-Nitrophenol	ND		0.0010	mg/L	1	7/1/2009 06:44 PM
Acenaphthene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Acenaphthylene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Acetophenone	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Anthracene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Atrazine	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Benzaldehyde	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Bis(2-ethylhexyl)phthalate	**0.00045**		**0.00020**	**mg/L**	1	7/1/2009 06:44 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Caprolactam	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Carbazole	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Chrysene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Dibenzofuran	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Diethyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Fluoranthene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Fluorene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Hexachloroethane	ND		0.00020	mg/L	1	7/1/2009 06:44 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #11
Lab ID: 0906543-03
Collection Date: 6/18/2009 03:15 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Isophorone	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Naphthalene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Nitrobenzene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Pentachlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Phenanthrene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Phenol	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Pyrene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Surr: 2,4,6-Tribromophenol	*55.9*		*34-129*	*%REC*	1	7/1/2009 06:44 PM
Surr: 2-Fluorobiphenyl	*70.8*		*40-125*	*%REC*	1	7/1/2009 06:44 PM
Surr: 2-Fluorophenol	*51.5*		*20-120*	*%REC*	1	7/1/2009 06:44 PM
Surr: 4-Terphenyl-d14	*64.1*		*40-135*	*%REC*	1	7/1/2009 06:44 PM
Surr: Nitrobenzene-d5	*69.4*		*41-120*	*%REC*	1	7/1/2009 06:44 PM
Surr: Phenol-d6	*63.1*		*20-120*	*%REC*	1	7/1/2009 06:44 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
2-Butanone	ND		0.010	mg/L	1	6/26/2009 06:28 PM
2-Hexanone	ND		0.010	mg/L	1	6/26/2009 06:28 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/26/2009 06:28 PM
Acetone	ND		0.010	mg/L	1	6/26/2009 06:28 PM
Benzene	**0.10**		**0.0050**	**mg/L**	1	6/26/2009 06:28 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Bromoform	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Bromomethane	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Carbon disulfide	ND		0.010	mg/L	1	6/26/2009 06:28 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW #11
Collection Date: 6/18/2009 03:15 PM

Work Order: 0906543
Lab ID: 0906543-03
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Chloroethane	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Chloroform	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Chloromethane	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
m,p-Xylene	ND		0.010	mg/L	1	6/26/2009 06:28 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Methylene chloride	ND		0.010	mg/L	1	6/26/2009 06:28 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Naphthalene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
o-Xylene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Styrene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Toluene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Trichloroethene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/26/2009 06:28 PM
Xylenes, Total	ND		0.015	mg/L	1	6/26/2009 06:28 PM
Surr: 1,2-Dichloroethane-d4	*111*		*70-125*	*%REC*	1	6/26/2009 06:28 PM
Surr: 4-Bromofluorobenzene	*97.9*		*72-125*	*%REC*	1	6/26/2009 06:28 PM
Surr: Dibromofluoromethane	*107*		*71-125*	*%REC*	1	6/26/2009 06:28 PM
Surr: Toluene-d8	*93.1*		*75-125*	*%REC*	1	6/26/2009 06:28 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**204**		**2.50**	**mg/L**	5	6/24/2009 12:09 PM
Fluoride	**0.579**		**0.100**	**mg/L**	1	6/23/2009 08:34 PM
Sulfate	**43.1**		**0.500**	**mg/L**	1	6/23/2009 08:34 PM
Nitrate/Nitrite (as N)	**1.23**		**0.100**	**mg/L**	1	6/24/2009 08:06 PM
Surr: Selenate (surr)	*97.9*		*85-115*	*%REC*	5	6/24/2009 12:09 PM
Surr: Selenate (surr)	*95.4*		*85-115*	*%REC*	1	6/23/2009 08:34 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	1	6/24/2009 08:06 PM
ALKALINITY			**SM2320B**			Analyst: **RPM**

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #11
Lab ID: 0906543-03
Collection Date: 6/18/2009 03:15 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**410**		**5.00**	**mg/L**	1	6/30/2009 12:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 12:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 12:00 PM
Alkalinity, Total (As CaCO3)	**410**		**5.00**	**mg/L**	1	6/30/2009 12:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**1,470**		**1.00**	**µmhos/cm**	1	6/22/2009 10:00 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**6.95**	H	**0.100**	**pH units**	1	6/22/2009 01:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**994**		**10.0**	**mg/L**	1	6/23/2009 03:00 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: North Well
Collection Date: 6/18/2009 04:00 PM

Work Order: 0906543
Lab ID: 0906543-04
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/30/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/30/2009 04:15 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/29/2009**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	6/30/2009 05:22 AM
Arsenic	**0.00536**		**0.00500**	**mg/L**	1	6/30/2009 05:22 AM
Barium	**0.0997**		**0.00500**	**mg/L**	1	6/30/2009 05:22 AM
Boron	**0.151**		**0.0200**	**mg/L**	1	6/30/2009 05:22 AM
Cadmium	ND		0.00200	mg/L	1	6/30/2009 05:22 AM
Calcium	**94.7**		**0.500**	**mg/L**	1	6/30/2009 05:22 AM
Chromium	**0.0104**		**0.00500**	**mg/L**	1	6/30/2009 05:22 AM
Cobalt	ND		0.00500	mg/L	1	6/30/2009 05:22 AM
Copper	ND		0.00500	mg/L	1	6/30/2009 05:22 AM
Iron	ND		0.200	mg/L	1	6/30/2009 05:22 AM
Lead	ND		0.00500	mg/L	1	6/30/2009 05:22 AM
Magnesium	**11.9**		**0.400**	**mg/L**	2	7/1/2009 11:38 PM
Manganese	ND		0.00500	mg/L	1	6/30/2009 05:22 AM
Molybdenum	ND		0.00500	mg/L	1	6/30/2009 05:22 AM
Nickel	ND		0.00500	mg/L	1	6/30/2009 05:22 AM
Potassium	**2.04**		**0.400**	**mg/L**	2	7/2/2009 01:53 PM
Selenium	ND		0.00500	mg/L	1	6/30/2009 05:22 AM
Silver	ND		0.00500	mg/L	1	6/30/2009 05:22 AM
Sodium	**64.4**		**0.400**	**mg/L**	2	7/1/2009 11:38 PM
Zinc	ND		0.00500	mg/L	1	6/30/2009 05:22 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	7/1/2009 07:06 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
2-Chlorophenol	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
2-Methylphenol	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
2-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
2-Nitrophenol	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
3&4-Methylphenol	ND		0.00020	mg/L	1	7/1/2009 07:06 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: North Well
Collection Date: 6/18/2009 04:00 PM

Work Order: 0906543
Lab ID: 0906543-04
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
3-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
4-Chloroaniline	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
4-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
4-Nitrophenol	ND		0.0010	mg/L	1	7/1/2009 07:06 PM
Acenaphthene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Acenaphthylene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Acetophenone	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Anthracene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Atrazine	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Benzaldehyde	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Bis(2-ethylhexyl)phthalate	**0.0011**		**0.00020**	**mg/L**	1	7/1/2009 07:06 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Caprolactam	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Carbazole	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Chrysene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Dibenzofuran	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Diethyl phthalate	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Fluoranthene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Fluorene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Hexachloroethane	ND		0.00020	mg/L	1	7/1/2009 07:06 PM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 0906543
Sample ID: North Well **Lab ID:** 0906543-04
Collection Date: 6/18/2009 04:00 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Isophorone	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Naphthalene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Nitrobenzene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Pentachlorophenol	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Phenanthrene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Phenol	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Pyrene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Surr: 2,4,6-Tribromophenol	*59.7*		*34-129*	*%REC*	1	7/1/2009 07:06 PM
Surr: 2-Fluorobiphenyl	*68.5*		*40-125*	*%REC*	1	7/1/2009 07:06 PM
Surr: 2-Fluorophenol	*49.0*		*20-120*	*%REC*	1	7/1/2009 07:06 PM
Surr: 4-Terphenyl-d14	*62.4*		*40-135*	*%REC*	1	7/1/2009 07:06 PM
Surr: Nitrobenzene-d5	*60.7*		*41-120*	*%REC*	1	7/1/2009 07:06 PM
Surr: Phenol-d6	*59.0*		*20-120*	*%REC*	1	7/1/2009 07:06 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
2-Butanone	ND		0.010	mg/L	1	6/26/2009 06:53 PM
2-Hexanone	ND		0.010	mg/L	1	6/26/2009 06:53 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/26/2009 06:53 PM
Acetone	ND		0.010	mg/L	1	6/26/2009 06:53 PM
Benzene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Bromoform	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Bromomethane	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Carbon disulfide	ND		0.010	mg/L	1	6/26/2009 06:53 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: North Well
Collection Date: 6/18/2009 04:00 PM

Work Order: 0906543
Lab ID: 0906543-04
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Chloroethane	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Chloroform	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Chloromethane	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
m,p-Xylene	ND		0.010	mg/L	1	6/26/2009 06:53 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Methylene chloride	ND		0.010	mg/L	1	6/26/2009 06:53 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Naphthalene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
o-Xylene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Styrene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Toluene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Trichloroethene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/26/2009 06:53 PM
Xylenes, Total	ND		0.015	mg/L	1	6/26/2009 06:53 PM
Surr: 1,2-Dichloroethane-d4	*104*		*70-125*	*%REC*	1	6/26/2009 06:53 PM
Surr: 4-Bromofluorobenzene	*98.7*		*72-125*	*%REC*	1	6/26/2009 06:53 PM
Surr: Dibromofluoromethane	*105*		*71-125*	*%REC*	1	6/26/2009 06:53 PM
Surr: Toluene-d8	*96.8*		*75-125*	*%REC*	1	6/26/2009 06:53 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**140**		**2.50**	**mg/L**	5	6/24/2009 12:32 PM
Fluoride	**0.933**		**0.100**	**mg/L**	1	6/23/2009 08:57 PM
Sulfate	**80.6**		**2.50**	**mg/L**	5	6/24/2009 12:32 PM
Nitrate/Nitrite (as N)	**2.72**		**0.100**	**mg/L**	1	6/24/2009 08:29 PM
Surr: Selenate (surr)	*98.8*		*85-115*	*%REC*	5	6/24/2009 12:32 PM
Surr: Selenate (surr)	*88.1*		*85-115*	*%REC*	1	6/23/2009 08:57 PM
Surr: Selenate (surr)	*93.6*		*85-115*	*%REC*	1	6/24/2009 08:29 PM
ALKALINITY			**SM2320B**			Analyst: **RPM**

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: North Well
Collection Date: 6/18/2009 04:00 PM

Work Order: 0906543
Lab ID: 0906543-04
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**178**		**5.00**	**mg/L**	1	6/30/2009 03:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 03:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 03:00 PM
Alkalinity, Total (As CaCO3)	**178**		**5.00**	**mg/L**	1	6/30/2009 03:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**1,020**		**1.00**	**µmhos/cm**	1	6/22/2009 10:00 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.44**	H	**0.100**	**pH units**	1	6/22/2009 01:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**664**		**10.0**	**mg/L**	1	6/23/2009 03:00 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: East Well
Lab ID: 0906543-05
Collection Date: 6/18/2009 04:20 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/30/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/30/2009 04:18 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/29/2009**	Analyst: **ALR**
Aluminum	**0.0131**		**0.0100**	**mg/L**	1	6/30/2009 05:29 AM
Arsenic	ND		0.00500	mg/L	1	6/30/2009 05:29 AM
Barium	**0.0820**		**0.00500**	**mg/L**	1	6/30/2009 05:29 AM
Boron	**0.143**		**0.0200**	**mg/L**	1	6/30/2009 05:29 AM
Cadmium	ND		0.00200	mg/L	1	6/30/2009 05:29 AM
Calcium	**83.8**		**0.500**	**mg/L**	1	6/30/2009 05:29 AM
Chromium	ND		0.00500	mg/L	1	6/30/2009 05:29 AM
Cobalt	ND		0.00500	mg/L	1	6/30/2009 05:29 AM
Copper	ND		0.00500	mg/L	1	6/30/2009 05:29 AM
Iron	ND		0.200	mg/L	1	6/30/2009 05:29 AM
Lead	ND		0.00500	mg/L	1	6/30/2009 05:29 AM
Magnesium	**12.0**		**0.400**	**mg/L**	2	7/1/2009 12:36 AM
Manganese	ND		0.00500	mg/L	1	6/30/2009 05:29 AM
Molybdenum	ND		0.00500	mg/L	1	6/30/2009 05:29 AM
Nickel	ND		0.00500	mg/L	1	6/30/2009 05:29 AM
Potassium	**1.47**		**0.400**	**mg/L**	2	7/1/2009 12:36 AM
Selenium	ND		0.00500	mg/L	1	6/30/2009 05:29 AM
Silver	ND		0.00500	mg/L	1	6/30/2009 05:29 AM
Sodium	**40.4**		**0.400**	**mg/L**	2	7/1/2009 12:36 AM
Zinc	**0.0172**		**0.00500**	**mg/L**	1	6/30/2009 05:29 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	7/2/2009 03:11 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
2-Chlorophenol	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
2-Methylphenol	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
2-Nitroaniline	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
2-Nitrophenol	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
3&4-Methylphenol	ND		0.00020	mg/L	1	7/2/2009 03:11 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: East Well
Collection Date: 6/18/2009 04:20 PM

Work Order: 0906543
Lab ID: 0906543-05
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
3-Nitroaniline	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
4-Chloroaniline	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
4-Nitroaniline	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
4-Nitrophenol	ND		0.0010	mg/L	1	7/2/2009 03:11 PM
Acenaphthene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Acenaphthylene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Acetophenone	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Anthracene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Atrazine	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Benzaldehyde	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Bis(2-ethylhexyl)phthalate	**0.00029**		**0.00020**	**mg/L**	1	7/2/2009 03:11 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Caprolactam	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Carbazole	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Chrysene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Dibenzofuran	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Diethyl phthalate	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Fluoranthene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Fluorene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Hexachloroethane	ND		0.00020	mg/L	1	7/2/2009 03:11 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: East Well
Lab ID: 0906543-05
Collection Date: 6/18/2009 04:20 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Isophorone	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Naphthalene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Nitrobenzene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Pentachlorophenol	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Phenanthrene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Phenol	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Pyrene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Surr: 2,4,6-Tribromophenol	*42.0*		*34-129*	*%REC*	1	7/2/2009 03:11 PM
Surr: 2-Fluorobiphenyl	*66.9*		*40-125*	*%REC*	1	7/2/2009 03:11 PM
Surr: 2-Fluorophenol	*56.8*		*20-120*	*%REC*	1	7/2/2009 03:11 PM
Surr: 4-Terphenyl-d14	*64.9*		*40-135*	*%REC*	1	7/2/2009 03:11 PM
Surr: Nitrobenzene-d5	*66.1*		*41-120*	*%REC*	1	7/2/2009 03:11 PM
Surr: Phenol-d6	*58.5*		*20-120*	*%REC*	1	7/2/2009 03:11 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
2-Butanone	ND		0.010	mg/L	1	6/26/2009 07:19 PM
2-Hexanone	ND		0.010	mg/L	1	6/26/2009 07:19 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/26/2009 07:19 PM
Acetone	ND		0.010	mg/L	1	6/26/2009 07:19 PM
Benzene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Bromoform	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Bromomethane	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Carbon disulfide	ND		0.010	mg/L	1	6/26/2009 07:19 PM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 0906543
Sample ID: East Well **Lab ID:** 0906543-05
Collection Date: 6/18/2009 04:20 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Chloroethane	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Chloroform	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Chloromethane	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
m,p-Xylene	ND		0.010	mg/L	1	6/26/2009 07:19 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Methylene chloride	ND		0.010	mg/L	1	6/26/2009 07:19 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Naphthalene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
o-Xylene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Styrene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Toluene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Trichloroethene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/26/2009 07:19 PM
Xylenes, Total	ND		0.015	mg/L	1	6/26/2009 07:19 PM
Surr: 1,2-Dichloroethane-d4	*110*		*70-125*	*%REC*	1	6/26/2009 07:19 PM
Surr: 4-Bromofluorobenzene	*91.4*		*72-125*	*%REC*	1	6/26/2009 07:19 PM
Surr: Dibromofluoromethane	*105*		*71-125*	*%REC*	1	6/26/2009 07:19 PM
Surr: Toluene-d8	*91.8*		*75-125*	*%REC*	1	6/26/2009 07:19 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**107**		**2.50**	**mg/L**	5	6/24/2009 12:56 PM
Fluoride	**0.980**		**0.100**	**mg/L**	1	6/23/2009 09:20 PM
Sulfate	**84.0**		**2.50**	**mg/L**	5	6/24/2009 12:56 PM
Nitrate/Nitrite (as N)	**2.59**		**0.100**	**mg/L**	1	6/24/2009 08:52 PM
Surr: Selenate (surr)	*103*		*85-115*	*%REC*	5	6/24/2009 12:56 PM
Surr: Selenate (surr)	*97.7*		*85-115*	*%REC*	1	6/23/2009 09:20 PM
Surr: Selenate (surr)	*99.8*		*85-115*	*%REC*	1	6/24/2009 08:52 PM
ALKALINITY			**SM2320B**			Analyst: **RPM**

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: East Well
Collection Date: 6/18/2009 04:20 PM

Work Order: 0906543
Lab ID: 0906543-05
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**167**		**5.00**	**mg/L**	1	6/30/2009 03:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 03:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 03:00 PM
Alkalinity, Total (As CaCO3)	**167**		**5.00**	**mg/L**	1	6/30/2009 03:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**881**		**1.00**	**µmhos/cm**	1	6/22/2009 10:00 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.21**	H	**0.100**	**pH units**	1	6/22/2009 01:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**554**		**10.0**	**mg/L**	1	6/23/2009 03:00 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Duplicate #1
Collection Date:

Work Order: 0906543
Lab ID: 0906543-06
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/30/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/30/2009 04:24 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/29/2009**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	6/30/2009 05:35 AM
Arsenic	**0.0221**		**0.00500**	**mg/L**	1	6/30/2009 05:35 AM
Barium	**0.200**		**0.00500**	**mg/L**	1	6/30/2009 05:35 AM
Boron	**0.192**		**0.0200**	**mg/L**	1	6/30/2009 05:35 AM
Cadmium	ND		0.00200	mg/L	1	6/30/2009 05:35 AM
Calcium	**105**		**0.500**	**mg/L**	1	6/30/2009 05:35 AM
Chromium	ND		0.00500	mg/L	1	6/30/2009 05:35 AM
Cobalt	ND		0.00500	mg/L	1	6/30/2009 05:35 AM
Copper	ND		0.00500	mg/L	1	6/30/2009 05:35 AM
Iron	**0.219**		**0.200**	**mg/L**	1	6/30/2009 05:35 AM
Lead	ND		0.00500	mg/L	1	6/30/2009 05:35 AM
Magnesium	**15.0**		**0.400**	**mg/L**	2	7/1/2009 12:43 AM
Manganese	**2.76**		**0.0100**	**mg/L**	2	7/1/2009 12:43 AM
Molybdenum	ND		0.00500	mg/L	1	6/30/2009 05:35 AM
Nickel	**0.00653**		**0.00500**	**mg/L**	1	6/30/2009 05:35 AM
Potassium	**2.44**		**0.400**	**mg/L**	2	7/1/2009 12:43 AM
Selenium	ND		0.00500	mg/L	1	6/30/2009 05:35 AM
Silver	ND		0.00500	mg/L	1	6/30/2009 05:35 AM
Sodium	**108**		**0.400**	**mg/L**	2	7/1/2009 12:43 AM
Zinc	**0.0141**		**0.00500**	**mg/L**	1	6/30/2009 05:35 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1,1'-Biphenyl	**0.00062**		**0.00020**	**mg/L**	1	7/1/2009 07:48 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	7/1/2009 07:48 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
2-Chlorophenol	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
2-Methylnaphthalene	**0.0016**		**0.00020**	**mg/L**	1	7/1/2009 07:48 PM
2-Methylphenol	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
2-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
2-Nitrophenol	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
3&4-Methylphenol	ND		0.00020	mg/L	1	7/1/2009 07:48 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Duplicate #1
Collection Date:

Work Order: 0906543
Lab ID: 0906543-06
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
3-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
4-Chloroaniline	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
4-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
4-Nitrophenol	ND		0.0010	mg/L	1	7/1/2009 07:48 PM
Acenaphthene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Acenaphthylene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Acetophenone	**0.021**		**0.00080**	**mg/L**	4	7/2/2009 03:53 PM
Anthracene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Atrazine	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Benzaldehyde	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Bis(2-ethylhexyl)phthalate	**0.00092**		**0.00020**	**mg/L**	1	7/1/2009 07:48 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Caprolactam	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Carbazole	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Chrysene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Dibenzofuran	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Diethyl phthalate	**0.0038**		**0.00020**	**mg/L**	1	7/1/2009 07:48 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Fluoranthene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Fluorene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Hexachloroethane	ND		0.00020	mg/L	1	7/1/2009 07:48 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Duplicate #1
Collection Date:

Work Order: 0906543
Lab ID: 0906543-06
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Isophorone	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Naphthalene	**0.0024**		**0.00020**	**mg/L**	1	7/1/2009 07:48 PM
Nitrobenzene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Pentachlorophenol	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Phenanthrene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Phenol	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Pyrene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Surr: 2,4,6-Tribromophenol	*49.9*		*34-129*	*%REC*	4	7/2/2009 03:53 PM
Surr: 2,4,6-Tribromophenol	*60.2*		*34-129*	*%REC*	1	7/1/2009 07:48 PM
Surr: 2-Fluorobiphenyl	*76.5*		*40-125*	*%REC*	1	7/1/2009 07:48 PM
Surr: 2-Fluorobiphenyl	*57.9*		*40-125*	*%REC*	4	7/2/2009 03:53 PM
Surr: 2-Fluorophenol	*59.6*		*20-120*	*%REC*	1	7/1/2009 07:48 PM
Surr: 2-Fluorophenol	*70.2*		*20-120*	*%REC*	4	7/2/2009 03:53 PM
Surr: 4-Terphenyl-d14	*66.7*		*40-135*	*%REC*	1	7/1/2009 07:48 PM
Surr: 4-Terphenyl-d14	*74.2*		*40-135*	*%REC*	4	7/2/2009 03:53 PM
Surr: Nitrobenzene-d5	*91.4*		*41-120*	*%REC*	4	7/2/2009 03:53 PM
Surr: Nitrobenzene-d5	*57.1*		*41-120*	*%REC*	1	7/1/2009 07:48 PM
Surr: Phenol-d6	*58.4*		*20-120*	*%REC*	1	7/1/2009 07:48 PM
Surr: Phenol-d6	*61.6*		*20-120*	*%REC*	4	7/2/2009 03:53 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
1,2,4-Trimethylbenzene	**0.0061**		**0.0050**	**mg/L**	1	6/26/2009 05:11 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
2-Butanone	**0.28**		**0.010**	**mg/L**	1	6/26/2009 05:11 PM
2-Hexanone	ND		0.010	mg/L	1	6/26/2009 05:11 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/26/2009 05:11 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Duplicate #1
Collection Date:

Work Order: 0906543
Lab ID: 0906543-06
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Acetone	**0.057**		**0.010**	**mg/L**	1	6/26/2009 05:11 PM
Benzene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Bromoform	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Bromomethane	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Carbon disulfide	ND		0.010	mg/L	1	6/26/2009 05:11 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Chloroethane	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Chloroform	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Chloromethane	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
m,p-Xylene	ND		0.010	mg/L	1	6/26/2009 05:11 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Methylene chloride	ND		0.010	mg/L	1	6/26/2009 05:11 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Naphthalene	**0.0074**		**0.0050**	**mg/L**	1	6/26/2009 05:11 PM
o-Xylene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Styrene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Toluene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Trichloroethene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/26/2009 05:11 PM
Xylenes, Total	ND		0.015	mg/L	1	6/26/2009 05:11 PM
Surr: 1,2-Dichloroethane-d4	*109*		*70-125*	*%REC*	1	6/26/2009 05:11 PM
Surr: 4-Bromofluorobenzene	*94.4*		*72-125*	*%REC*	1	6/26/2009 05:11 PM
Surr: Dibromofluoromethane	*107*		*71-125*	*%REC*	1	6/26/2009 05:11 PM
Surr: Toluene-d8	*99.2*		*75-125*	*%REC*	1	6/26/2009 05:11 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**168**		**2.50**	**mg/L**	5	6/24/2009 01:19 PM
Fluoride	ND		0.100	mg/L	1	6/23/2009 09:44 PM
Sulfate	**90.4**		**2.50**	**mg/L**	5	6/24/2009 01:19 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Duplicate #1
Collection Date:

Work Order: 0906543
Lab ID: 0906543-06
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Nitrate/Nitrite (as N)	**0.682**		**0.100**	**mg/L**	1	6/24/2009 09:15 PM
Surr: Selenate (surr)	*97.9*		*85-115*	*%REC*	1	6/24/2009 09:15 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	5	6/24/2009 01:19 PM
Surr: Selenate (surr)	*97.9*		*85-115*	*%REC*	1	6/23/2009 09:44 PM
ALKALINITY			**SM2320B**			Analyst: **RPM**
Alkalinity, Bicarbonate (As CaCO3)	**246**		**5.00**	**mg/L**	1	6/30/2009 12:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 12:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 12:00 PM
Alkalinity, Total (As CaCO3)	**246**		**5.00**	**mg/L**	1	6/30/2009 12:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**1,450**		**1.00**	**µmhos/cm**	1	6/22/2009 10:00 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**6.89**		**0.100**	**pH units**	1	6/22/2009 01:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**812**		**10.0**	**mg/L**	1	6/23/2009 03:00 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #1
Lab ID: 0906543-07
Collection Date: 6/19/2009 02:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/30/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/30/2009 04:26 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/29/2009**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	7/1/2009 12:49 AM
Arsenic	**0.00914**		**0.00500**	**mg/L**	1	7/1/2009 12:49 AM
Barium	**0.147**		**0.00500**	**mg/L**	1	7/1/2009 12:49 AM
Boron	**0.175**		**0.0200**	**mg/L**	1	7/1/2009 12:49 AM
Cadmium	ND		0.00200	mg/L	1	7/1/2009 12:49 AM
Calcium	**103**		**0.500**	**mg/L**	1	7/1/2009 12:49 AM
Chromium	ND		0.00500	mg/L	1	7/1/2009 12:49 AM
Cobalt	ND		0.00500	mg/L	1	7/1/2009 12:49 AM
Copper	ND		0.00500	mg/L	1	7/1/2009 12:49 AM
Iron	ND		0.200	mg/L	1	7/1/2009 12:49 AM
Lead	ND		0.00500	mg/L	1	7/1/2009 12:49 AM
Magnesium	**13.8**		**0.200**	**mg/L**	1	7/1/2009 12:49 AM
Manganese	**0.974**		**0.00500**	**mg/L**	1	7/1/2009 12:49 AM
Molybdenum	ND		0.00500	mg/L	1	7/1/2009 12:49 AM
Nickel	ND		0.00500	mg/L	1	7/1/2009 12:49 AM
Potassium	**2.29**		**0.200**	**mg/L**	1	7/1/2009 12:49 AM
Selenium	ND		0.00500	mg/L	1	7/1/2009 12:49 AM
Silver	ND		0.00500	mg/L	1	7/1/2009 12:49 AM
Sodium	**70.4**		**0.200**	**mg/L**	1	7/1/2009 12:49 AM
Zinc	**0.0124**		**0.00500**	**mg/L**	1	7/1/2009 12:49 AM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
1,2,4-Trimethylbenzene	**0.0067**		**0.0050**	**mg/L**	1	6/26/2009 07:44 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
2-Butanone	**0.060**		**0.010**	**mg/L**	1	6/26/2009 07:44 PM
2-Hexanone	ND		0.010	mg/L	1	6/26/2009 07:44 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/26/2009 07:44 PM
Acetone	ND		0.010	mg/L	1	6/26/2009 07:44 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #1
Lab ID: 0906543-07
Collection Date: 6/19/2009 02:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Bromoform	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Bromomethane	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Carbon disulfide	ND		0.010	mg/L	1	6/26/2009 07:44 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Chloroethane	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Chloroform	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Chloromethane	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Ethylbenzene	**0.012**		**0.0050**	**mg/L**	1	6/26/2009 07:44 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
m,p-Xylene	**0.019**		**0.010**	**mg/L**	1	6/26/2009 07:44 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Methylene chloride	ND		0.010	mg/L	1	6/26/2009 07:44 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Naphthalene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
o-Xylene	**0.011**		**0.0050**	**mg/L**	1	6/26/2009 07:44 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Styrene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Toluene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Trichloroethene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/26/2009 07:44 PM
Xylenes, Total	**0.031**		**0.015**	**mg/L**	1	6/26/2009 07:44 PM
Surr: 1,2-Dichloroethane-d4	*109*		*70-125*	*%REC*	1	6/26/2009 07:44 PM
Surr: 4-Bromofluorobenzene	*106*		*72-125*	*%REC*	1	6/26/2009 07:44 PM
Surr: Dibromofluoromethane	*107*		*71-125*	*%REC*	1	6/26/2009 07:44 PM
Surr: Toluene-d8	*104*		*75-125*	*%REC*	1	6/26/2009 07:44 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**131**		**2.50**	**mg/L**	5	6/24/2009 01:42 PM
Fluoride	**0.827**		**0.100**	**mg/L**	1	6/23/2009 10:07 PM
Sulfate	**123**		**2.50**	**mg/L**	5	6/24/2009 01:42 PM
Nitrate/Nitrite (as N)	**3.75**		**0.100**	**mg/L**	1	6/24/2009 09:37 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #1
Lab ID: 0906543-07
Collection Date: 6/19/2009 02:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Selenate (surr)	*93.6*		*85-115*	*%REC*	5	6/24/2009 01:42 PM
Surr: Selenate (surr)	*97.6*		*85-115*	*%REC*	1	6/23/2009 10:07 PM
Surr: Selenate (surr)	*98.7*		*85-115*	*%REC*	1	6/24/2009 09:37 PM
ALKALINITY			**SM2320B**			Analyst: **RPM**
Alkalinity, Bicarbonate (As CaCO3)	**207**		**5.00**	**mg/L**	1	6/30/2009 12:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 12:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 12:00 PM
Alkalinity, Total (As CaCO3)	**207**		**5.00**	**mg/L**	1	6/30/2009 12:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**1,130**		**1.00**	**µmhos/cm**	1	6/22/2009 10:00 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.07**	H	**0.100**	**pH units**	1	6/22/2009 01:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**694**		**10.0**	**mg/L**	1	6/23/2009 03:00 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #7
Lab ID: 0906543-08
Collection Date: 6/19/2009 03:15 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/30/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/30/2009 04:28 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/29/2009**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	7/1/2009 12:56 AM
Arsenic	**0.00923**		**0.00500**	**mg/L**	1	7/1/2009 12:56 AM
Barium	**0.169**		**0.00500**	**mg/L**	1	7/1/2009 12:56 AM
Boron	**0.161**		**0.0200**	**mg/L**	1	7/1/2009 12:56 AM
Cadmium	ND		0.00200	mg/L	1	7/1/2009 12:56 AM
Calcium	**52.7**		**0.500**	**mg/L**	1	7/1/2009 12:56 AM
Chromium	ND		0.00500	mg/L	1	7/1/2009 12:56 AM
Cobalt	ND		0.00500	mg/L	1	7/1/2009 12:56 AM
Copper	ND		0.00500	mg/L	1	7/1/2009 12:56 AM
Iron	ND		0.200	mg/L	1	7/1/2009 12:56 AM
Lead	ND		0.00500	mg/L	1	7/1/2009 12:56 AM
Magnesium	**6.18**		**0.200**	**mg/L**	1	7/1/2009 12:56 AM
Manganese	**0.127**		**0.00500**	**mg/L**	1	7/1/2009 12:56 AM
Molybdenum	ND		0.00500	mg/L	1	7/1/2009 12:56 AM
Nickel	ND		0.00500	mg/L	1	7/1/2009 12:56 AM
Potassium	**2.38**		**0.200**	**mg/L**	1	7/1/2009 12:56 AM
Selenium	ND		0.00500	mg/L	1	7/1/2009 12:56 AM
Silver	ND		0.00500	mg/L	1	7/1/2009 12:56 AM
Sodium	**54.2**		**0.200**	**mg/L**	1	7/1/2009 12:56 AM
Zinc	**0.0137**		**0.00500**	**mg/L**	1	7/1/2009 12:56 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	7/1/2009 08:10 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
2-Chlorophenol	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
2-Methylphenol	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
2-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
2-Nitrophenol	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
3&4-Methylphenol	ND		0.00020	mg/L	1	7/1/2009 08:10 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #7
Lab ID: 0906543-08
Collection Date: 6/19/2009 03:15 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
3-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
4-Chloroaniline	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
4-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
4-Nitrophenol	ND		0.0010	mg/L	1	7/1/2009 08:10 PM
Acenaphthene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Acenaphthylene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Acetophenone	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Anthracene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Atrazine	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Benzaldehyde	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Bis(2-ethylhexyl)phthalate	**0.0019**		**0.00020**	**mg/L**	1	7/1/2009 08:10 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Caprolactam	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Carbazole	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Chrysene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Dibenzofuran	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Diethyl phthalate	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Fluoranthene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Fluorene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Hexachloroethane	ND		0.00020	mg/L	1	7/1/2009 08:10 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #7
Lab ID: 0906543-08
Collection Date: 6/19/2009 03:15 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Isophorone	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Naphthalene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Nitrobenzene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Pentachlorophenol	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Phenanthrene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Phenol	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Pyrene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Surr: 2,4,6-Tribromophenol	*52.8*		*34-129*	*%REC*	1	7/1/2009 08:10 PM
Surr: 2-Fluorobiphenyl	*64.2*		*40-125*	*%REC*	1	7/1/2009 08:10 PM
Surr: 2-Fluorophenol	*53.5*		*20-120*	*%REC*	1	7/1/2009 08:10 PM
Surr: 4-Terphenyl-d14	*65.1*		*40-135*	*%REC*	1	7/1/2009 08:10 PM
Surr: Nitrobenzene-d5	*64.6*		*41-120*	*%REC*	1	7/1/2009 08:10 PM
Surr: Phenol-d6	*60.5*		*20-120*	*%REC*	1	7/1/2009 08:10 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
2-Butanone	**0.030**		**0.010**	**mg/L**	1	6/26/2009 08:09 PM
2-Hexanone	ND		0.010	mg/L	1	6/26/2009 08:09 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/26/2009 08:09 PM
Acetone	ND		0.010	mg/L	1	6/26/2009 08:09 PM
Benzene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Bromoform	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Bromomethane	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Carbon disulfide	ND		0.010	mg/L	1	6/26/2009 08:09 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #7
Lab ID: 0906543-08
Collection Date: 6/19/2009 03:15 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Chloroethane	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Chloroform	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Chloromethane	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
m,p-Xylene	ND		0.010	mg/L	1	6/26/2009 08:09 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Methylene chloride	ND		0.010	mg/L	1	6/26/2009 08:09 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Naphthalene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
o-Xylene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Styrene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Toluene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Trichloroethene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/26/2009 08:09 PM
Xylenes, Total	ND		0.015	mg/L	1	6/26/2009 08:09 PM
Surr: 1,2-Dichloroethane-d4	*104*		*70-125*	*%REC*	1	6/26/2009 08:09 PM
Surr: 4-Bromofluorobenzene	*102*		*72-125*	*%REC*	1	6/26/2009 08:09 PM
Surr: Dibromofluoromethane	*99.8*		*71-125*	*%REC*	1	6/26/2009 08:09 PM
Surr: Toluene-d8	*100*		*75-125*	*%REC*	1	6/26/2009 08:09 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**30.6**		**0.500**	**mg/L**	1	6/23/2009 10:30 PM
Fluoride	**1.12**		**0.100**	**mg/L**	1	6/23/2009 10:30 PM
Sulfate	**67.2**		**2.50**	**mg/L**	5	6/24/2009 02:05 PM
Nitrate/Nitrite (as N)	**1.66**		***0.100***	**mg/L**	1	6/24/2009 11:09 PM
Surr: Selenate (surr)	*98.1*		*85-115*	*%REC*	5	6/24/2009 02:05 PM
Surr: Selenate (surr)	*97.8*		*85-115*	*%REC*	1	6/23/2009 10:30 PM
Surr: Selenate (surr)	*97.9*		*85-115*	*%REC*	1	6/24/2009 11:09 PM
ALKALINITY			**SM2320B**			Analyst: **RPM**

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #7
Lab ID: 0906543-08
Collection Date: 6/19/2009 03:15 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**182**		**5.00**	**mg/L**	1	6/30/2009 03:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 03:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 03:00 PM
Alkalinity, Total (As CaCO3)	**182**		**5.00**	**mg/L**	1	6/30/2009 03:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**646**		**1.00**	**µmhos/cm**	1	6/22/2009 10:00 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.28**	H	**0.100**	**pH units**	1	6/22/2009 01:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**384**		**10.0**	**mg/L**	1	6/23/2009 03:00 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: RW-1
Lab ID: 0906543-09
Collection Date: 6/19/2009 04:16 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/30/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/30/2009 04:30 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/29/2009**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	7/1/2009 01:02 AM
Arsenic	**0.0100**		**0.00500**	**mg/L**	1	7/1/2009 01:02 AM
Barium	**0.160**		**0.00500**	**mg/L**	1	7/1/2009 01:02 AM
Boron	**0.161**		**0.0200**	**mg/L**	1	7/1/2009 01:02 AM
Cadmium	ND		0.00200	mg/L	1	7/1/2009 01:02 AM
Calcium	**51.3**		**0.500**	**mg/L**	1	7/1/2009 01:02 AM
Chromium	ND		0.00500	mg/L	1	7/1/2009 01:02 AM
Cobalt	ND		0.00500	mg/L	1	7/1/2009 01:02 AM
Copper	ND		0.00500	mg/L	1	7/1/2009 01:02 AM
Iron	ND		0.200	mg/L	1	7/1/2009 01:02 AM
Lead	ND		0.00500	mg/L	1	7/1/2009 01:02 AM
Magnesium	**5.99**		**0.200**	**mg/L**	1	7/1/2009 01:02 AM
Manganese	**0.0380**		**0.00500**	**mg/L**	1	7/1/2009 01:02 AM
Molybdenum	ND		0.00500	mg/L	1	7/1/2009 01:02 AM
Nickel	ND		0.00500	mg/L	1	7/1/2009 01:02 AM
Potassium	**2.40**		**0.200**	**mg/L**	1	7/1/2009 01:02 AM
Selenium	ND		0.00500	mg/L	1	7/1/2009 01:02 AM
Silver	ND		0.00500	mg/L	1	7/1/2009 01:02 AM
Sodium	**59.7**		**0.200**	**mg/L**	1	7/1/2009 01:02 AM
Zinc	**0.00548**		**0.00500**	**mg/L**	1	7/1/2009 01:02 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
2,4-Dimethylphenol	**0.00021**		**0.00020**	**mg/L**	1	7/1/2009 08:31 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	7/1/2009 08:31 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
2-Chlorophenol	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
2-Methylphenol	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
2-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
2-Nitrophenol	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
3&4-Methylphenol	ND		0.00020	mg/L	1	7/1/2009 08:31 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: RW-1
Collection Date: 6/19/2009 04:16 PM

Work Order: 0906543
Lab ID: 0906543-09
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
3-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
4-Chloroaniline	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
4-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
4-Nitrophenol	ND		0.0010	mg/L	1	7/1/2009 08:31 PM
Acenaphthene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Acenaphthylene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Acetophenone	**0.00021**		**0.00020**	**mg/L**	1	7/1/2009 08:31 PM
Anthracene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Atrazine	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Benzaldehyde	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Bis(2-ethylhexyl)phthalate	**0.00076**		**0.00020**	**mg/L**	1	7/1/2009 08:31 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Caprolactam	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Carbazole	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Chrysene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Dibenzofuran	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Diethyl phthalate	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Fluoranthene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Fluorene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Hexachloroethane	ND		0.00020	mg/L	1	7/1/2009 08:31 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: RW-1
Lab ID: 0906543-09
Collection Date: 6/19/2009 04:16 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Isophorone	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Naphthalene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Nitrobenzene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Pentachlorophenol	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Phenanthrene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Phenol	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Pyrene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Surr: 2,4,6-Tribromophenol	*48.5*		*34-129*	*%REC*	1	7/1/2009 08:31 PM
Surr: 2-Fluorobiphenyl	*67.9*		*40-125*	*%REC*	1	7/1/2009 08:31 PM
Surr: 2-Fluorophenol	*50.7*		*20-120*	*%REC*	1	7/1/2009 08:31 PM
Surr: 4-Terphenyl-d14	*62.5*		*40-135*	*%REC*	1	7/1/2009 08:31 PM
Surr: Nitrobenzene-d5	*64.1*		*41-120*	*%REC*	1	7/1/2009 08:31 PM
Surr: Phenol-d6	*62.9*		*20-120*	*%REC*	1	7/1/2009 08:31 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
2-Butanone	**0.038**		**0.010**	**mg/L**	1	6/28/2009 06:35 PM
2-Hexanone	ND		0.010	mg/L	1	6/28/2009 06:35 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/28/2009 06:35 PM
Acetone	ND		0.010	mg/L	1	6/28/2009 06:35 PM
Benzene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Bromoform	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Bromomethane	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Carbon disulfide	ND		0.010	mg/L	1	6/28/2009 06:35 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: RW-1
Collection Date: 6/19/2009 04:16 PM

Work Order: 0906543
Lab ID: 0906543-09
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Chloroethane	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Chloroform	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Chloromethane	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
m,p-Xylene	ND		0.010	mg/L	1	6/28/2009 06:35 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Methylene chloride	ND		0.010	mg/L	1	6/28/2009 06:35 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Naphthalene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
o-Xylene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Styrene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Toluene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Trichloroethene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/28/2009 06:35 PM
Xylenes, Total	ND		0.015	mg/L	1	6/28/2009 06:35 PM
Surr: 1,2-Dichloroethane-d4	*104*		*70-125*	*%REC*	1	6/28/2009 06:35 PM
Surr: 4-Bromofluorobenzene	*97.3*		*72-125*	*%REC*	1	6/28/2009 06:35 PM
Surr: Dibromofluoromethane	*103*		*71-125*	*%REC*	1	6/28/2009 06:35 PM
Surr: Toluene-d8	*98.0*		*75-125*	*%REC*	1	6/28/2009 06:35 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**34.8**		**0.500**	**mg/L**	1	6/23/2009 10:53 PM
Fluoride	**1.21**		**0.100**	**mg/L**	1	6/23/2009 10:53 PM
Sulfate	**70.8**		**2.50**	**mg/L**	5	6/24/2009 03:15 PM
Surr: Selenate (surr)	*97.1*		*85-115*	*%REC*	1	6/23/2009 10:53 PM
Surr: Selenate (surr)	*98.3*		*85-115*	*%REC*	5	6/24/2009 03:15 PM
ALKALINITY			**SM2320B**			Analyst: **RPM**
Alkalinity, Bicarbonate (As CaCO3)	**187**		**5.00**	**mg/L**	1	6/30/2009 03:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 03:00 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: RW-1
Lab ID: 0906543-09
Collection Date: 6/19/2009 04:16 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 03:00 PM
Alkalinity, Total (As CaCO3)	**187**		**5.00**	**mg/L**	1	6/30/2009 03:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**682**		**1.00**	**µmhos/cm**	1	6/22/2009 10:00 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.33**	H	**0.100**	**pH units**	1	6/22/2009 01:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**398**		**10.0**	**mg/L**	1	6/23/2009 03:00 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: Trip Blank 2400
Lab ID: 0906543-10
Collection Date: 6/19/2009 05:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
2-Butanone	ND		0.010	mg/L	1	6/28/2009 04:08 PM
2-Hexanone	ND		0.010	mg/L	1	6/28/2009 04:08 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/28/2009 04:08 PM
Acetone	ND		0.010	mg/L	1	6/28/2009 04:08 PM
Benzene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Bromoform	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Bromomethane	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Carbon disulfide	ND		0.010	mg/L	1	6/28/2009 04:08 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Chloroethane	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Chloroform	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Chloromethane	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
m,p-Xylene	ND		0.010	mg/L	1	6/28/2009 04:08 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Methylene chloride	ND		0.010	mg/L	1	6/28/2009 04:08 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Naphthalene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
o-Xylene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Styrene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: Trip Blank 2400
Lab ID: 0906543-10
Collection Date: 6/19/2009 05:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tetrachloroethene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Toluene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Trichloroethene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/28/2009 04:08 PM
Xylenes, Total	ND		0.015	mg/L	1	6/28/2009 04:08 PM
Surr: 1,2-Dichloroethane-d4	*101*		*70-125*	*%REC*	1	6/28/2009 04:08 PM
Surr: 4-Bromofluorobenzene	*95.2*		*72-125*	*%REC*	1	6/28/2009 04:08 PM
Surr: Dibromofluoromethane	*103*		*71-125*	*%REC*	1	6/28/2009 04:08 PM
Surr: Toluene-d8	*97.4*		*75-125*	*%REC*	1	6/28/2009 04:08 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Trip Blank 1837
Collection Date: 6/19/2009 05:00 PM

Work Order: 0906543
Lab ID: 0906543-11
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
2-Butanone	ND		0.010	mg/L	1	6/28/2009 04:32 PM
2-Hexanone	ND		0.010	mg/L	1	6/28/2009 04:32 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/28/2009 04:32 PM
Acetone	ND		0.010	mg/L	1	6/28/2009 04:32 PM
Benzene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Bromoform	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Bromomethane	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Carbon disulfide	ND		0.010	mg/L	1	6/28/2009 04:32 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Chloroethane	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Chloroform	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Chloromethane	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
m,p-Xylene	ND		0.010	mg/L	1	6/28/2009 04:32 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Methylene chloride	ND		0.010	mg/L	1	6/28/2009 04:32 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Naphthalene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
o-Xylene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Styrene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: Trip Blank 1837
Lab ID: 0906543-11
Collection Date: 6/19/2009 05:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tetrachloroethene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Toluene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Trichloroethene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/28/2009 04:32 PM
Xylenes, Total	ND		0.015	mg/L	1	6/28/2009 04:32 PM
Surr: 1,2-Dichloroethane-d4	*104*		*70-125*	*%REC*	1	6/28/2009 04:32 PM
Surr: 4-Bromofluorobenzene	*95.7*		*72-125*	*%REC*	1	6/28/2009 04:32 PM
Surr: Dibromofluoromethane	*104*		*71-125*	*%REC*	1	6/28/2009 04:32 PM
Surr: Toluene-d8	*99.0*		*75-125*	*%REC*	1	6/28/2009 04:32 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Trip Blank 2354
Collection Date: 6/19/2009 05:00 PM

Work Order: 0906543
Lab ID: 0906543-12
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
2-Butanone	ND		0.010	mg/L	1	6/28/2009 04:57 PM
2-Hexanone	ND		0.010	mg/L	1	6/28/2009 04:57 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/28/2009 04:57 PM
Acetone	ND		0.010	mg/L	1	6/28/2009 04:57 PM
Benzene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Bromoform	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Bromomethane	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Carbon disulfide	ND		0.010	mg/L	1	6/28/2009 04:57 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Chloroethane	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Chloroform	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Chloromethane	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
m,p-Xylene	ND		0.010	mg/L	1	6/28/2009 04:57 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Methylene chloride	ND		0.010	mg/L	1	6/28/2009 04:57 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Naphthalene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
o-Xylene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Styrene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: Trip Blank 2354
Lab ID: 0906543-12
Collection Date: 6/19/2009 05:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tetrachloroethene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Toluene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Trichloroethene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/28/2009 04:57 PM
Xylenes, Total	ND		0.015	mg/L	1	6/28/2009 04:57 PM
Surr: 1,2-Dichloroethane-d4	*103*		*70-125*	*%REC*	1	6/28/2009 04:57 PM
Surr: 4-Bromofluorobenzene	*96.0*		*72-125*	*%REC*	1	6/28/2009 04:57 PM
Surr: Dibromofluoromethane	*104*		*71-125*	*%REC*	1	6/28/2009 04:57 PM
Surr: Toluene-d8	*99.1*		*75-125*	*%REC*	1	6/28/2009 04:57 PM

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

ALS Laboratory Group

Date: 06-Jul-09

Client: Navajo Refining Company

Work Order: 0906543

Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36852** Instrument ID **ICPMS02** Method: **SW6020** **(Dissolve)**

MBLK Sample ID: **MBLKW3-062909-36852** Units: **mg/L** Analysis Date: **6/30/2009 02:59 AM**

Client ID: Run ID: **ICPMS02_090629A** SeqNo: **1707215** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.0050								
Barium	ND	0.0050								
Cadmium	ND	0.0020								
Calcium	ND	0.50								
Chromium	ND	0.0050								
Lead	0.0004722	0.0050								J
Magnesium	ND	0.20								
Potassium	0.1516	0.20								J
Selenium	ND	0.0050								
Silver	ND	0.0050								
Sodium	ND	0.20								

LCS Sample ID: **MLCSW3-062909-36852** Units: **mg/L** Analysis Date: **6/30/2009 03:06 AM**

Client ID: Run ID: **ICPMS02_090629A** SeqNo: **1707219** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05204	0.0050	0.05	0	104	80-120	0			
Barium	0.0587	0.0050	0.05	0	117	80-120	0			
Cadmium	0.04887	0.0020	0.05	0	97.7	80-120	0			
Calcium	5.097	0.50	5	0	102	80-120	0			
Chromium	0.04946	0.0050	0.05	0	98.9	80-120	0			
Lead	0.05027	0.0050	0.05	0	101	80-120	0			
Magnesium	5.263	0.20	5	0	105	80-120	0			
Potassium	5.098	0.20	5	0	102	80-120	0			
Selenium	0.04922	0.0050	0.05	0	98.4	80-120	0			
Silver	0.05123	0.0050	0.05	0	102	80-120	0			

LCS Sample ID: **MLCSW3-062909-36852** Units: **mg/L** Analysis Date: **6/30/2009 02:33 PM**

Client ID: Run ID: **ICPMS02_090630A** SeqNo: **1708072** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	5.026	0.20	5	0	101	80-120	0			

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36852** Instrument ID **ICPMS02** Method: **SW6020** **(Dissolve)**

MS Sample ID: **0906535-20DMS** Units: **mg/L** Analysis Date: **6/30/2009 03:32 AM**
Client ID: Run ID: **ICPMS02_090629A** SeqNo: **1707228** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05457	0.0050	0.05	0.002463	104	75-125	0			
Barium	0.1135	0.0050	0.05	0.05365	120	75-125	0			
Cadmium	0.04975	0.0020	0.05	0.0003148	98.9	75-125	0			
Calcium	7.914	0.50	5	2.685	105	75-125	0			
Chromium	0.04901	0.0050	0.05	0.0002281	97.6	75-125	0			
Lead	0.05035	0.0050	0.05	0.0005099	99.7	75-125	0			
Magnesium	13.53	0.20	5	8.724	96.1	75-125	0			
Potassium	4.952	0.20	5	0.3725	91.6	75-125	0			
Selenium	0.0513	0.0050	0.05	0.001509	99.6	75-125	0			
Silver	0.05159	0.0050	0.05	0.0002785	103	75-125	0			

MS Sample ID: **0906535-20DMS** Units: **mg/L** Analysis Date: **6/30/2009 03:05 PM**
Client ID: Run ID: **ICPMS02_090630A** SeqNo: **1708077** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	10.59	0.20	5	5.704	97.7	75-125	0			

MSD Sample ID: **0906535-20DMSD** Units: **mg/L** Analysis Date: **6/30/2009 03:38 AM**
Client ID: Run ID: **ICPMS02_090629A** SeqNo: **1707231** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05178	0.0050	0.05	0.002463	98.6	75-125	0.05457	5.25	25	
Barium	0.1071	0.0050	0.05	0.05365	107	75-125	0.1135	5.8	25	
Cadmium	0.04741	0.0020	0.05	0.0003148	94.2	75-125	0.04975	4.82	25	
Calcium	7.575	0.50	5	2.685	97.8	75-125	7.914	4.38	25	
Chromium	0.04811	0.0050	0.05	0.0002281	95.8	75-125	0.04901	1.85	25	
Lead	0.04908	0.0050	0.05	0.0005099	97.1	75-125	0.05035	2.55	25	
Magnesium	13.12	0.20	5	8.724	87.9	75-125	13.53	3.08	25	
Potassium	4.805	0.20	5	0.3725	88.6	75-125	4.952	3.01	25	
Selenium	0.05193	0.0050	0.05	0.001509	101	75-125	0.0513	1.22	25	
Silver	0.05088	0.0050	0.05	0.0002785	101	75-125	0.05159	1.39	25	

MSD Sample ID: **0906535-20DMSD** Units: **mg/L** Analysis Date: **6/30/2009 03:12 PM**
Client ID: Run ID: **ICPMS02_090630A** SeqNo: **1708078** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	10.22	0.20	5	5.704	90.3	75-125	10.59	3.56	25	

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36852** Instrument ID **ICPMS02** Method: **SW6020** **(Dissolve)**

DUP Sample ID: **0906535-20DDUP** Units: **mg/L** Analysis Date: **6/30/2009 03:19 AM**
Client ID: Run ID: **ICPMS02_090629A** SeqNo: **1707223** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.0023	0.0050	0	0	0	0-0	0.002463	0	25	J
Barium	0.05305	0.0050	0	0	0	0-0	0.05365	1.12	25	
Cadmium	ND	0.0020	0	0	0	0-0	0.0003148	0	25	
Calcium	2.603	0.50	0	0	0	0-0	2.685	3.1	25	
Chromium	ND	0.0050	0	0	0	0-0	0.0002281	0	25	
Lead	0.0004661	0.0050	0	0	0	0-0	0.0005099	0	25	J
Magnesium	8.46	0.20	0	0	0	0-0	8.724	3.07	25	
Potassium	0.3074	0.20	0	0	0	0-0	0.3725	19.1	25	
Selenium	ND	0.0050	0	0	0	0-0	0.001509	0	25	
Silver	ND	0.0050	0	0	0	0-0	0.0002785	0	25	

DUP Sample ID: **0906535-20DDUP** Units: **mg/L** Analysis Date: **6/30/2009 02:46 PM**
Client ID: Run ID: **ICPMS02_090630A** SeqNo: **1708075** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	5.427	0.20	0	0	0	0-0	5.704	4.98	25	

The following samples were analyzed in this batch:

0906543-01D	0906543-02D	0906543-03D
0906543-04D	0906543-05D	0906543-06D
0906543-07D	0906543-08D	0906543-09D

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36867** Instrument ID **Mercury** Method: **SW7470**

MBLK Sample ID: **GBLKW3-063009-36867** Units: **mg/L** Analysis Date: **6/30/2009 03:55 PM**
Client ID: Run ID: **MERCURY_090630A** SeqNo: **1708124** Prep Date: **6/30/2009** 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: **GLCSW3-063009-36867** Units: **mg/L** Analysis Date: **6/30/2009 04:00 PM**
Client ID: Run ID: **MERCURY_090630A** SeqNo: **1708125** Prep Date: **6/30/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00546	0.00020	0.005	0	109	85-115	0			

MS Sample ID: **0906543-01BMS** Units: **mg/L** Analysis Date: **6/30/2009 04:06 PM**
Client ID: **MW-6** Run ID: **MERCURY_090630A** SeqNo: **1708128** Prep Date: **6/30/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00571	0.00020	0.005	-0.000057	115	85-115	0			S

MSD Sample ID: **0906543-01BMSD** Units: **mg/L** Analysis Date: **6/30/2009 04:08 PM**
Client ID: **MW-6** Run ID: **MERCURY_090630A** SeqNo: **1708129** Prep Date: **6/30/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0058	0.00020	0.005	-0.000057	117	85-115	0.00571	1.56	20	S

DUP Sample ID: **0906543-01BDUP** Units: **mg/L** Analysis Date: **6/30/2009 04:04 PM**
Client ID: **MW-6** Run ID: **MERCURY_090630A** SeqNo: **1708127** Prep Date: **6/30/2009** 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	-0.000057	0	20	

The following samples were analyzed in this batch:

0906543-01B	0906543-02B	0906543-03B
0906543-04B	0906543-05B	0906543-06B
0906543-07B	0906543-08B	0906543-09B

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36746** Instrument ID **SV-4** Method: **SW8270**

MBLK Sample ID: **SBLKW1-090623-36746** Units: **µg/L** Analysis Date: **7/1/2009 10:15 AM**

Client ID: Run ID: **SV-4_090701A** SeqNo: **1709724** Prep Date: **6/23/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1´-Biphenyl	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
2,4-Dichlorophenol	ND	0.20								
2,4-Dimethylphenol	ND	0.20								
2,4-Dinitrophenol	ND	1.0								
2,4-Dinitrotoluene	ND	0.20								
2,6-Dinitrotoluene	ND	0.20								
2-Chloronaphthalene	ND	0.20								
2-Chlorophenol	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.20								
2-Nitroaniline	ND	0.20								
2-Nitrophenol	ND	0.20								
3&4-Methylphenol	ND	0.20								
3,3´-Dichlorobenzidine	ND	0.20								
3-Nitroaniline	ND	0.20								
4,6-Dinitro-2-methylphenol	ND	0.20								
4-Bromophenyl phenyl ether	ND	0.20								
4-Chloro-3-methylphenol	ND	0.20								
4-Chloroaniline	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
4-Nitroaniline	ND	0.20								
4-Nitrophenol	ND	1.0								
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Acetophenone	ND	0.20								
Anthracene	ND	0.20								
Atrazine	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzaldehyde	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Caprolactam	ND	0.20								
Carbazole	ND	0.20								

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

Batch ID: **36746** Instrument ID **SV-4** Method: **SW8270**

Chrysene	ND	0.20					
Di-n-butyl phthalate	ND	0.20					
Di-n-octyl phthalate	ND	0.20					
Dibenz(a,h)anthracene	ND	0.20					
Dibenzofuran	ND	0.20					
Diethyl phthalate	ND	0.20					
Dimethyl phthalate	ND	0.20					
Fluoranthene	ND	0.20					
Fluorene	ND	0.20					
Hexachlorobenzene	ND	0.20					
Hexachlorobutadiene	ND	0.20					
Hexachlorocyclopentadiene	ND	0.20					
Hexachloroethane	ND	0.20					
Indeno(1,2,3-cd)pyrene	ND	0.20					
Isophorone	ND	0.20					
N-Nitrosodi-n-propylamine	ND	0.20					
N-Nitrosodiphenylamine	ND	0.20					
Naphthalene	ND	0.20					
Nitrobenzene	ND	0.20					
Pentachlorophenol	ND	0.20					
Phenanthrene	ND	0.20					
Phenol	ND	0.20					
Pyrene	ND	0.20					
Surr: 2,4,6-Tribromophenol	*3.222*	0.20	*5*	0	*64.4*	*34-129*	0
Surr: 2-Fluorobiphenyl	*3.394*	0.20	*5*	0	*67.9*	*40-125*	0
Surr: 2-Fluorophenol	*3.339*	0.20	*5*	0	*66.8*	*20-120*	0
Surr: 4-Terphenyl-d14	*3.398*	0.20	*5*	0	*68*	*40-135*	0
Surr: Nitrobenzene-d5	*3.437*	0.20	*5*	0	*68.7*	*41-120*	0
Surr: Phenol-d6	*3.971*	0.20	*5*	0	*79.4*	*20-120*	0

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36746** Instrument ID **SV-4** Method: **SW8270**

LCS Sample ID: **SLCSW1-090623-36746** Units: **µg/L** Analysis Date: **7/1/2009 10:36 AM**

Client ID: Run ID: **SV-4_090701A** SeqNo: **1709725** Prep Date: **6/23/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1´-Biphenyl	3.273	0.20	5	0	65.5	45-125	0			
2,4,5-Trichlorophenol	3.544	0.20	5	0	70.9	46-120	0			
2,4,6-Trichlorophenol	3.36	0.20	5	0	67.2	42-120	0			
2,4-Dichlorophenol	3.385	0.20	5	0	67.7	49-120	0			
2,4-Dimethylphenol	2.961	0.20	5	0	59.2	35-120	0			
2,4-Dinitrophenol	2.726	1.0	5	0	54.5	15-120	0			
2,4-Dinitrotoluene	3.445	0.20	5	0	68.9	50-122	0			
2,6-Dinitrotoluene	3.529	0.20	5	0	70.6	50-120	0			
2-Chloronaphthalene	3.663	0.20	5	0	73.3	50-120	0			
2-Chlorophenol	3.178	0.20	5	0	63.6	40-120	0			
2-Methylnaphthalene	3.419	0.20	5	0	68.4	50-120	0			
2-Methylphenol	3.349	0.20	5	0	67	45-120	0			
2-Nitroaniline	4.373	0.20	5	0	87.5	28-139	0			
2-Nitrophenol	3.4	0.20	5	0	68	40-120	0			
3&4-Methylphenol	3.286	0.20	5	0	65.7	35-120	0			
3,3´-Dichlorobenzidine	2.984	0.20	5	0	59.7	15-120	0			
3-Nitroaniline	3.135	0.20	5	0	62.7	30-120	0			
4,6-Dinitro-2-methylphenol	2.965	0.20	5	0	59.3	25-121	0			
4-Bromophenyl phenyl ether	2.881	0.20	5	0	57.6	45-120	0			
4-Chloro-3-methylphenol	3.68	0.20	5	0	73.6	47-120	0			
4-Chloroaniline	2.857	0.20	5	0	57.1	20-120	0			
4-Chlorophenyl phenyl ether	3.527	0.20	5	0	70.5	50-120	0			
4-Nitroaniline	3.414	0.20	5	0	68.3	30-133	0			
4-Nitrophenol	4.215	1.0	5	0	84.3	30-130	0			
Acenaphthene	3.304	0.20	5	0	66.1	45-120	0			
Acenaphthylene	3.393	0.20	5	0	67.9	47-120	0			
Acetophenone	3.425	0.20	5	0	68.5	40-120	0			
Anthracene	3.406	0.20	5	0	68.1	45-120	0			
Atrazine	3.016	0.20	5	0	60.3	40-130	0			
Benz(a)anthracene	3.605	0.20	5	0	72.1	40-120	0			
Benzaldehyde	2.646	0.20	5	0	52.9	35-130	0			
Benzo(a)pyrene	3.465	0.20	5	0	69.3	45-120	0			
Benzo(b)fluoranthene	3.485	0.20	5	0	69.7	50-120	0			
Benzo(g,h,i)perylene	3.36	0.20	5	0	67.2	42-127	0			
Benzo(k)fluoranthene	3.006	0.20	5	0	60.1	45-127	0			
Bis(2-chloroethoxy)methane	3.745	0.20	5	0	74.9	45-120	0			
Bis(2-chloroethyl)ether	3.99	0.20	5	0	79.8	37-121	0			
Bis(2-chloroisopropyl)ether	3.419	0.20	5	0	68.4	40-120	0			
Bis(2-ethylhexyl)phthalate	3.719	0.20	5	0	74.4	40-139	0			
Butyl benzyl phthalate	3.627	0.20	5	0	72.5	47-123	0			
Caprolactam	3.678	0.20	5	0	73.6	35-134	0			
Carbazole	3.066	0.20	5	0	61.3	42-128	0			

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

Batch ID: **36746** Instrument ID **SV-4** Method: **SW8270**

Chrysene	3.482	0.20	5	0	69.6	43-120	0
Di-n-butyl phthalate	3.188	0.20	5	0	63.8	45-123	0
Di-n-octyl phthalate	3.781	0.20	5	0	75.6	45-129	0
Dibenz(a,h)anthracene	3.576	0.20	5	0	71.5	45-125	0
Dibenzofuran	3.376	0.20	5	0	67.5	50-120	0
Diethyl phthalate	3.338	0.20	5	0	66.8	41-120	0
Dimethyl phthalate	3.6	0.20	5	0	72	40-122	0
Fluoranthene	3.054	0.20	5	0	61.1	45-125	0
Fluorene	3.637	0.20	5	0	72.7	49-120	0
Hexachlorobenzene	3.084	0.20	5	0	61.7	48-120	0
Hexachlorobutadiene	3.388	0.20	5	0	67.8	40-120	0
Hexachlorocyclopentadiene	3.058	0.20	5	0	61.2	34-136	0
Hexachloroethane	3.288	0.20	5	0	65.8	40-120	0
Indeno(1,2,3-cd)pyrene	4.139	0.20	5	0	82.8	41-128	0
Isophorone	3.784	0.20	5	0	75.7	40-121	0
N-Nitrosodi-n-propylamine	3.119	0.20	5	0	62.4	40-120	0
N-Nitrosodiphenylamine	3.004	0.20	5	0	60.1	40-125	0
Naphthalene	3.641	0.20	5	0	72.8	45-120	0
Nitrobenzene	3.424	0.20	5	0	68.5	44-120	0
Pentachlorophenol	1.778	0.20	5	0	35.6	19-121	0
Phenanthrene	3.441	0.20	5	0	68.8	45-121	0
Phenol	3.804	0.20	5	0	76.1	20-124	0
Pyrene	3.689	0.20	5	0	73.8	40-130	0
Surr: 2,4,6-Tribromophenol	*3.024*	0.20	*5*	0	*60.5*	*34-129*	0
Surr: 2-Fluorobiphenyl	*3.281*	0.20	*5*	0	*65.6*	*40-125*	0
Surr: 2-Fluorophenol	*2.693*	0.20	*5*	0	*53.9*	*20-120*	0
Surr: 4-Terphenyl-d14	*3.022*	0.20	*5*	0	*60.4*	*40-135*	0
Surr: Nitrobenzene-d5	*3.319*	0.20	*5*	0	*66.4*	*41-120*	0
Surr: Phenol-d6	*3.065*	0.20	*5*	0	*61.3*	*20-120*	0

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36746** Instrument ID **SV-4** Method: **SW8270**

LCSD Sample ID: **SLCSDW1-090623-36746** Units: **µg/L** Analysis Date: **7/1/2009 11:35 AM**

Client ID: Run ID: **SV-4_090701A** SeqNo: **1709726** Prep Date: **6/23/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1´-Biphenyl	4.457	0.20	5	0	89.1	45-125	3.273	30.6	20	R
2,4,5-Trichlorophenol	4.838	0.20	5	0	96.8	46-120	3.544	30.9	20	R
2,4,6-Trichlorophenol	4.698	0.20	5	0	94	42-120	3.36	33.2	20	R
2,4-Dichlorophenol	4.747	0.20	5	0	94.9	49-120	3.385	33.5	20	R
2,4-Dimethylphenol	4.07	0.20	5	0	81.4	35-120	2.961	31.6	20	R
2,4-Dinitrophenol	5.046	1.0	5	0	101	15-120	2.726	59.7	20	R
2,4-Dinitrotoluene	4.68	0.20	5	0	93.6	50-122	3.445	30.4	20	R
2,6-Dinitrotoluene	4.977	0.20	5	0	99.5	50-120	3.529	34.1	20	R
2-Chloronaphthalene	5.256	0.20	5	0	105	50-120	3.663	35.7	20	R
2-Chlorophenol	5.25	0.20	5	0	105	40-120	3.178	49.1	20	R
2-Methylnaphthalene	4.547	0.20	5	0	90.9	50-120	3.419	28.3	20	R
2-Methylphenol	5.083	0.20	5	0	102	45-120	3.349	41.1	20	R
2-Nitroaniline	4.91	0.20	5	0	98.2	28-139	4.373	11.6	20	
2-Nitrophenol	4.736	0.20	5	0	94.7	40-120	3.4	32.8	20	R
3&4-Methylphenol	5.243	0.20	5	0	105	35-120	3.286	45.9	20	R
3,3´-Dichlorobenzidine	4.772	0.20	5	0	95.4	15-120	2.984	46.1	20	R
3-Nitroaniline	4.269	0.20	5	0	85.4	30-120	3.135	30.6	20	R
4,6-Dinitro-2-methylphenol	4.627	0.20	5	0	92.5	25-121	2.965	43.8	20	R
4-Bromophenyl phenyl ether	4.021	0.20	5	0	80.4	45-120	2.881	33	20	R
4-Chloro-3-methylphenol	5.146	0.20	5	0	103	47-120	3.68	33.2	20	R
4-Chloroaniline	4.037	0.20	5	0	80.7	20-120	2.857	34.2	20	R
4-Chlorophenyl phenyl ether	4.918	0.20	5	0	98.4	50-120	3.527	32.9	20	R
4-Nitroaniline	4.277	0.20	5	0	85.5	30-133	3.414	22.4	20	R
4-Nitrophenol	5.938	1.0	5	0	119	30-130	4.215	33.9	20	R
Acenaphthene	4.448	0.20	5	0	89	45-120	3.304	29.5	20	R
Acenaphthylene	4.672	0.20	5	0	93.4	47-120	3.393	31.7	20	R
Acetophenone	4.559	0.20	5	0	91.2	40-120	3.425	28.4	20	R
Anthracene	4.588	0.20	5	0	91.8	45-120	3.406	29.6	20	R
Atrazine	4.47	0.20	5	0	89.4	40-130	3.016	38.8	20	R
Benz(a)anthracene	4.916	0.20	5	0	98.3	40-120	3.605	30.8	20	R
Benzaldehyde	3.923	0.20	5	0	78.5	35-130	2.646	38.9	20	R
Benzo(a)pyrene	4.658	0.20	5	0	93.2	45-120	3.465	29.4	20	R
Benzo(b)fluoranthene	4.788	0.20	5	0	95.8	50-120	3.485	31.5	20	R
Benzo(g,h,i)perylene	4.503	0.20	5	0	90.1	42-127	3.36	29.1	20	R
Benzo(k)fluoranthene	4.011	0.20	5	0	80.2	45-127	3.006	28.7	20	R
Bis(2-chloroethoxy)methane	4.841	0.20	5	0	96.8	45-120	3.745	25.6	20	R
Bis(2-chloroethyl)ether	5.729	0.20	5	0	115	37-121	3.99	35.8	20	R
Bis(2-chloroisopropyl)ether	5.322	0.20	5	0	106	40-120	3.419	43.5	20	R
Bis(2-ethylhexyl)phthalate	5.019	0.20	5	0	100	40-139	3.719	29.8	20	R
Butyl benzyl phthalate	4.984	0.20	5	0	99.7	47-123	3.627	31.5	20	R
Caprolactam	5.144	0.20	5	0	103	35-134	3.678	33.2	20	R
Carbazole	4.227	0.20	5	0	84.5	42-128	3.066	31.8	20	R

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36746** Instrument ID **SV-4** Method: **SW8270**

Chrysene	4.722	0.20	5	0	94.4	43-120	3.482	30.2	20	R
Di-n-butyl phthalate	4.498	0.20	5	0	90	45-123	3.188	34.1	20	R
Di-n-octyl phthalate	4.925	0.20	5	0	98.5	45-129	3.781	26.3	20	R
Dibenz(a,h)anthracene	4.949	0.20	5	0	99	45-125	3.576	32.2	20	R
Dibenzofuran	4.625	0.20	5	0	92.5	50-120	3.376	31.2	20	R
Diethyl phthalate	4.438	0.20	5	0	88.8	41-120	3.338	28.3	20	R
Dimethyl phthalate	4.849	0.20	5	0	97	40-122	3.6	29.6	20	R
Fluoranthene	4.253	0.20	5	0	85.1	45-125	3.054	32.8	20	R
Fluorene	4.736	0.20	5	0	94.7	49-120	3.637	26.2	20	R
Hexachlorobenzene	4.15	0.20	5	0	83	48-120	3.084	29.5	20	R
Hexachlorobutadiene	4.387	0.20	5	0	87.7	40-120	3.388	25.7	20	R
Hexachlorocyclopentadiene	4.281	0.20	5	0	85.6	34-136	3.058	33.3	20	R
Hexachloroethane	5.452	0.20	5	0	109	40-120	3.288	49.5	20	R
Indeno(1,2,3-cd)pyrene	5.486	0.20	5	0	110	41-128	4.139	28	20	R
Isophorone	5.052	0.20	5	0	101	40-121	3.784	28.7	20	R
N-Nitrosodi-n-propylamine	5.031	0.20	5	0	101	40-120	3.119	46.9	20	R
N-Nitrosodiphenylamine	4.089	0.20	5	0	81.8	40-125	3.004	30.6	20	R
Naphthalene	4.772	0.20	5	0	95.4	45-120	3.641	26.9	20	R
Nitrobenzene	4.498	0.20	5	0	90	44-120	3.424	27.1	20	R
Pentachlorophenol	4.231	0.20	5	0	84.6	19-121	1.778	81.7	20	R
Phenanthrene	4.776	0.20	5	0	95.5	45-121	3.441	32.5	20	R
Phenol	5.821	0.20	5	0	116	20-124	3.804	41.9	20	R
Pyrene	5.019	0.20	5	0	100	40-130	3.689	30.6	20	R
Surr: 2,4,6-Tribromophenol	*3.764*	0.20	*5*	0	*75.3*	*34-129*	3.024	*21.8*	*20*	*R*
Surr: 2-Fluorobiphenyl	*4.404*	0.20	*5*	0	*88.1*	*40-125*	3.281	*29.2*	*20*	*R*
Surr: 2-Fluorophenol	*4.492*	0.20	*5*	0	*89.8*	*20-120*	2.693	*50.1*	*20*	*R*
Surr: 4-Terphenyl-d14	*4.061*	0.20	*5*	0	*81.2*	*40-135*	3.022	*29.3*	*20*	*R*
Surr: Nitrobenzene-d5	*4.367*	0.20	*5*	0	*87.3*	*41-120*	3.319	*27.3*	*20*	*R*
Surr: Phenol-d6	*4.736*	0.20	*5*	0	*94.7*	*20-120*	3.065	*42.8*	*20*	*R*

The following samples were analyzed in this batch:

0906543-01F	0906543-02F	0906543-03F
0906543-04F	0906543-05F	0906543-06F
0906543-08F	0906543-09F	

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78545** Instrument ID **VOA1** Method: **SW8260**

MBLK Sample ID: **VBLKW-062609-R78545** Units: **µg/L** Analysis Date: **6/26/2009 11:16 AM**

Client ID: Run ID: **VOA1_090626A** SeqNo: **1706384** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
2-Butanone	ND	10								
2-Hexanone	ND	10								
4-Isopropyltoluene	ND	5.0								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
Isopropylbenzene	ND	5.0								
m,p-Xylene	ND	10								
Methyl tert-butyl ether	ND	5.0								
Methylene chloride	ND	10								
n-Butylbenzene	ND	5.0								
n-Propylbenzene	ND	5.0								
Naphthalene	ND	5.0								
o-Xylene	ND	5.0								
sec-Butylbenzene	ND	5.0								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,2-Dichloroethene	ND	5.0								

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78545** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Vinyl chloride	ND	2.0					
Xylenes, Total	ND	15					
Surr: 1,2-Dichloroethane-d4	*47.01*	5.0	*50*	0	*94*	*70-125*	0
Surr: 4-Bromofluorobenzene	*48.04*	5.0	*50*	0	*96.1*	*72-125*	0
Surr: Dibromofluoromethane	*51.96*	5.0	*50*	0	*104*	*71-125*	0
Surr: Toluene-d8	*46.13*	5.0	*50*	0	*92.3*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78545** Instrument ID **VOA1** Method: **SW8260**

LCS Sample ID: **VLCSW-062609-R78545** Units: **µg/L** Analysis Date: **6/26/2009 10:25 AM**

Client ID: Run ID: **VOA1_090626A** SeqNo: **1706383** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	49.23	5.0	50	0	98.5	80-120	0			
1,1,2,2-Tetrachloroethane	48.69	5.0	50	0	97.4	72-120	0			
1,1,2-Trichloroethane	44.03	5.0	50	0	88.1	80-120	0			
1,1-Dichloroethane	51.13	5.0	50	0	102	76-120	0			
1,1-Dichloroethene	50.71	5.0	50	0	101	73-124	0			
1,2,4-Trimethylbenzene	52.57	5.0	50	0	105	68-123	0			
1,2-Dibromoethane	45.12	5.0	50	0	90.2	80-120	0			
1,2-Dichloroethane	50.26	5.0	50	0	101	78-120	0			
1,2-Dichloropropane	49	5.0	50	0	98	80-120	0			
1,3,5-Trimethylbenzene	52.42	5.0	50	0	105	80-120	0			
2-Butanone	101.4	10	100	0	101	58-132	0			
2-Hexanone	93.9	10	100	0	93.9	61-130	0			
4-Isopropyltoluene	49.17	5.0	50	0	98.3	79-120	0			
4-Methyl-2-pentanone	96.23	10	100	0	96.2	65-127	0			
Acetone	103	10	100	0	103	59-137	0			
Benzene	49.14	5.0	50	0	98.3	73-121	0			
Bromodichloromethane	50.01	5.0	50	0	100	80-120	0			
Bromoform	47.68	5.0	50	0	95.4	79-120	0			
Bromomethane	47.11	5.0	50	0	94.2	66-137	0			
Carbon disulfide	98.67	10	100	0	98.7	68-141	0			
Carbon tetrachloride	51.13	5.0	50	0	102	75-124	0			
Chlorobenzene	48.73	5.0	50	0	97.5	80-120	0			
Chloroethane	46.45	5.0	50	0	92.9	76-121	0			
Chloroform	50.58	5.0	50	0	101	80-120	0			
Chloromethane	47.89	5.0	50	0	95.8	67-123	0			
cis-1,2-Dichloroethene	48.32	5.0	50	0	96.6	78-120	0			
cis-1,3-Dichloropropene	51.31	5.0	50	0	103	80-120	0			
Dibromochloromethane	50.35	5.0	50	0	101	80-120	0			
Ethylbenzene	45.39	5.0	50	0	90.8	80-120	0			
Isopropylbenzene	44.61	5.0	50	0	89.2	80-120	0			
m,p-Xylene	94.66	10	100	0	94.7	78-121	0			
Methyl tert-butyl ether	54.85	5.0	50	0	110	73-121	0			
Methylene chloride	46.51	10	50	0	93	65-133	0			
n-Butylbenzene	49.4	5.0	50	0	98.8	77-120	0			
n-Propylbenzene	50.91	5.0	50	0	102	78-120	0			
Naphthalene	50.65	5.0	50	0	101	65-127	0			
o-Xylene	47.2	5.0	50	0	94.4	80-120	0			
sec-Butylbenzene	53.01	5.0	50	0	106	78-120	0			
Styrene	45.25	5.0	50	0	90.5	80-120	0			
Tetrachloroethene	45.95	5.0	50	0	91.9	79-120	0			
Toluene	43.72	5.0	50	0	87.4	80-120	0			
trans-1,2-Dichloroethene	50.65	5.0	50	0	101	78-120	0			

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

QC BATCH REPORT

Batch ID: **R78545** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	52.83	5.0	50	0	106	80-120	0
Trichloroethene	53.37	5.0	50	0	107	80-120	0
Vinyl chloride	46.94	2.0	50	0	93.9	70-127	0
Xylenes, Total	141.9	15	150	0	94.6	80-120	0
Surr: 1,2-Dichloroethane-d4	*52.37*	5.0	*50*	0	*105*	*70-125*	0
Surr: 4-Bromofluorobenzene	*48.74*	5.0	*50*	0	*97.5*	*72-125*	0
Surr: Dibromofluoromethane	*50.63*	5.0	*50*	0	*101*	*71-125*	0
Surr: Toluene-d8	*46.75*	5.0	*50*	0	*93.5*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78545** Instrument ID **VOA1** Method: **SW8260**

MS Sample ID: **0906566-09AMS** Units: **µg/L** Analysis Date: **6/26/2009 12:57 PM**

Client ID: Run ID: **VOA1_090626A** SeqNo: **1706388** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	45.46	5.0	50	0	90.9	80-120	0			
1,1,2,2-Tetrachloroethane	47.57	5.0	50	0	95.1	72-120	0			
1,1,2-Trichloroethane	45.47	5.0	50	0	90.9	80-120	0			
1,1-Dichloroethane	48.94	5.0	50	1.776	94.3	76-120	0			
1,1-Dichloroethene	96.74	5.0	50	64.75	64	73-124	0			S
1,2,4-Trimethylbenzene	47.93	5.0	50	0	95.9	68-123	0			
1,2-Dibromoethane	47.53	5.0	50	0	95.1	80-120	0			
1,2-Dichloroethane	44.7	5.0	50	0	89.4	78-120	0			
1,2-Dichloropropane	46.79	5.0	50	0	93.6	80-120	0			
1,3,5-Trimethylbenzene	46.43	5.0	50	0	92.9	80-120	0			
2-Butanone	106.5	10	100	0	107	58-132	0			
2-Hexanone	99.02	10	100	0	99	61-130	0			
4-Isopropyltoluene	43.5	5.0	50	0	87	79-120	0			
4-Methyl-2-pentanone	102.3	10	100	0	102	65-127	0			
Acetone	98.01	10	100	0	98	59-137	0			
Benzene	43.45	5.0	50	0	86.9	73-121	0			
Bromodichloromethane	46.93	5.0	50	0	93.9	80-120	0			
Bromoform	49.63	5.0	50	0	99.3	79-120	0			
Bromomethane	46.21	5.0	50	0	92.4	66-137	0			
Carbon disulfide	92.34	10	100	0	92.3	68-141	0			
Carbon tetrachloride	43.5	5.0	50	0	87	75-124	0			
Chlorobenzene	46.06	5.0	50	0	92.1	80-120	0			
Chloroethane	44.19	5.0	50	0	88.4	76-121	0			
Chloroform	48.72	5.0	50	0	97.4	80-120	0			
Chloromethane	40.33	5.0	50	0	80.7	67-123	0			
cis-1,2-Dichloroethene	51.11	5.0	50	0	102	78-120	0			
cis-1,3-Dichloropropene	50.09	5.0	50	0	100	80-120	0			
Dibromochloromethane	49.48	5.0	50	0	99	80-120	0			
Ethylbenzene	45.24	5.0	50	0	90.5	80-120	0			
Isopropylbenzene	44.43	5.0	50	0	88.9	80-120	0			
m,p-Xylene	88.62	10	100	0	88.6	78-121	0			
Methyl tert-butyl ether	52.52	5.0	50	0	105	73-121	0			
Methylene chloride	46.14	10	50	0.4314	91.4	65-133	0			
n-Butylbenzene	40.57	5.0	50	0	81.1	77-120	0			
n-Propylbenzene	46.86	5.0	50	0	93.7	78-120	0			
Naphthalene	46.63	5.0	50	0	93.3	65-127	0			
o-Xylene	45.63	5.0	50	0	91.3	80-120	0			
sec-Butylbenzene	43.22	5.0	50	0	86.4	78-120	0			
Styrene	45.96	5.0	50	0	91.9	80-120	0			
Tetrachloroethene	40.17	5.0	50	0	80.3	79-120	0			
Toluene	45.85	5.0	50	0	91.7	80-120	0			
trans-1,2-Dichloroethene	48.06	5.0	50	0	96.1	78-120	0			

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78545** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	47.43	5.0	50	0	94.9	80-120	0
Trichloroethene	46.52	5.0	50	0	93	80-120	0
Vinyl chloride	40.21	2.0	50	0	80.4	70-127	0
Xylenes, Total	134.3	15	150	0	89.5	80-120	0
Surr: 1,2-Dichloroethane-d4	*54*	5.0	*50*	0	*108*	*70-125*	0
Surr: 4-Bromofluorobenzene	*47.86*	5.0	*50*	0	*95.7*	*72-125*	0
Surr: Dibromofluoromethane	*51.11*	5.0	*50*	0	*102*	*71-125*	0
Surr: Toluene-d8	*48.72*	5.0	*50*	0	*97.4*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78545** Instrument ID **VOA1** Method: **SW8260**

MSD Sample ID: **0906566-09AMSD** Units: **µg/L** Analysis Date: **6/26/2009 01:22 PM**

Client ID: Run ID: **VOA1_090626A** SeqNo: **1706389** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	49.69	5.0	50	0	99.4	80-120	45.46	8.89	20	
1,1,2,2-Tetrachloroethane	46.59	5.0	50	0	93.2	72-120	47.57	2.08	20	
1,1,2-Trichloroethane	44.81	5.0	50	0	89.6	80-120	45.47	1.46	20	
1,1-Dichloroethane	51.12	5.0	50	1.776	98.7	76-120	48.94	4.35	20	
1,1-Dichloroethene	102.2	5.0	50	64.75	74.9	73-124	96.74	5.51	20	
1,2,4-Trimethylbenzene	49.99	5.0	50	0	100	68-123	47.93	4.21	20	
1,2-Dibromoethane	49.89	5.0	50	0	99.8	80-120	47.53	4.84	20	
1,2-Dichloroethane	51.6	5.0	50	0	103	78-120	44.7	14.3	20	
1,2-Dichloropropane	49.44	5.0	50	0	98.9	80-120	46.79	5.5	20	
1,3,5-Trimethylbenzene	47.82	5.0	50	0	95.6	80-120	46.43	2.95	20	
2-Butanone	112	10	100	0	112	58-132	106.5	5.02	20	
2-Hexanone	101.5	10	100	0	101	61-130	99.02	2.42	20	
4-Isopropyltoluene	43.94	5.0	50	0	87.9	79-120	43.5	1.02	20	
4-Methyl-2-pentanone	111.4	10	100	0	111	65-127	102.3	8.51	20	
Acetone	106.5	10	100	0	106	59-137	98.01	8.29	20	
Benzene	48.9	5.0	50	0	97.8	73-121	43.45	11.8	20	
Bromodichloromethane	48.5	5.0	50	0	97	80-120	46.93	3.29	20	
Bromoform	52.72	5.0	50	0	105	79-120	49.63	6.03	20	
Bromomethane	48.09	5.0	50	0	96.2	66-137	46.21	4	20	
Carbon disulfide	94.71	10	100	0	94.7	68-141	92.34	2.53	20	
Carbon tetrachloride	45.37	5.0	50	0	90.7	75-124	43.5	4.21	20	
Chlorobenzene	46.93	5.0	50	0	93.9	80-120	46.06	1.87	20	
Chloroethane	45.1	5.0	50	0	90.2	76-121	44.19	2.04	20	
Chloroform	49.72	5.0	50	0	99.4	80-120	48.72	2.03	20	
Chloromethane	45.44	5.0	50	0	90.9	67-123	40.33	11.9	20	
cis-1,2-Dichloroethene	53.8	5.0	50	0	108	78-120	51.11	5.13	20	
cis-1,3-Dichloropropene	52.11	5.0	50	0	104	80-120	50.09	3.95	20	
Dibromochloromethane	50.94	5.0	50	0	102	80-120	49.48	2.92	20	
Ethylbenzene	48.22	5.0	50	0	96.4	80-120	45.24	6.38	20	
Isopropylbenzene	44.74	5.0	50	0	89.5	80-120	44.43	0.711	20	
m,p-Xylene	97.81	10	100	0	97.8	78-121	88.62	9.86	20	
Methyl tert-butyl ether	57.03	5.0	50	0	114	73-121	52.52	8.24	20	
Methylene chloride	47.37	10	50	0.4314	93.9	65-133	46.14	2.63	20	
n-Butylbenzene	41.99	5.0	50	0	84	77-120	40.57	3.42	20	
n-Propylbenzene	46.59	5.0	50	0	93.2	78-120	46.86	0.581	20	
Naphthalene	49.08	5.0	50	0	98.2	65-127	46.63	5.1	20	
o-Xylene	49.17	5.0	50	0	98.3	80-120	45.63	7.46	20	
sec-Butylbenzene	46.32	5.0	50	0	92.6	78-120	43.22	6.92	20	
Styrene	48.75	5.0	50	0	97.5	80-120	45.96	5.89	20	
Tetrachloroethene	45.65	5.0	50	0	91.3	79-120	40.17	12.8	20	
Toluene	46.63	5.0	50	0	93.3	80-120	45.85	1.7	20	
trans-1,2-Dichloroethene	51.71	5.0	50	0	103	78-120	48.06	7.32	20	

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78545** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	52.49	5.0	50	0	105	80-120	47.43	10.1	20
Trichloroethene	49.9	5.0	50	0	99.8	80-120	46.52	7.01	20
Vinyl chloride	45.11	2.0	50	0	90.2	70-127	40.21	11.5	20
Xylenes, Total	147	15	150	0	98	80-120	134.3	9.05	20
Surr: 1,2-Dichloroethane-d4	*54.94*	5.0	*50*	0	*110*	*70-125*	54	*1.72*	*20*
Surr: 4-Bromofluorobenzene	*51.34*	5.0	*50*	0	*103*	*72-125*	47.86	*7.01*	*20*
Surr: Dibromofluoromethane	*54.18*	5.0	*50*	0	*108*	*71-125*	51.11	*5.83*	*20*
Surr: Toluene-d8	*50.62*	5.0	*50*	0	*101*	*75-125*	48.72	*3.83*	*20*

The following samples were analyzed in this batch:

0906543-01A	0906543-02A	0906543-03A
0906543-04A	0906543-05A	0906543-06A
0906543-07A	0906543-08A	

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78552** Instrument ID **VOA2** Method: **SW8260**

MBLK Sample ID: **VBLKW-062809-R78552** Units: **µg/L** Analysis Date: **6/28/2009 12:52 PM**

Client ID: Run ID: **VOA2_090628A** SeqNo: **1706557** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
2-Butanone	ND	10								
2-Hexanone	ND	10								
4-Isopropyltoluene	ND	5.0								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
Isopropylbenzene	ND	5.0								
m,p-Xylene	ND	10								
Methyl tert-butyl ether	ND	5.0								
Methylene chloride	ND	10								
n-Butylbenzene	ND	5.0								
n-Propylbenzene	ND	5.0								
Naphthalene	ND	5.0								
o-Xylene	ND	5.0								
sec-Butylbenzene	ND	5.0								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,2-Dichloroethene	ND	5.0								

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

QC BATCH REPORT

Batch ID: **R78552** Instrument ID **VOA2** Method: **SW8260**

trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Vinyl chloride	ND	2.0					
Xylenes, Total	ND	15					
Surr: 1,2-Dichloroethane-d4	*48.89*	5.0	*50*	0	*97.8*	*70-125*	0
Surr: 4-Bromofluorobenzene	*48.1*	5.0	*50*	0	*96.2*	*72-125*	0
Surr: Dibromofluoromethane	*50.46*	5.0	*50*	0	*101*	*71-125*	0
Surr: Toluene-d8	*49.01*	5.0	*50*	0	*98*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78552** Instrument ID **VOA2** Method: **SW8260**

LCS Sample ID: **VLCSW-062809-R78552** Units: **µg/L** Analysis Date: **6/28/2009 11:38 AM**

Client ID: Run ID: **VOA2_090628A** SeqNo: **1706556** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	48.63	5.0	50	0	97.3	80-120	0			
1,1,2,2-Tetrachloroethane	47.88	5.0	50	0	95.8	72-120	0			
1,1,2-Trichloroethane	47.76	5.0	50	0	95.5	80-120	0			
1,1-Dichloroethane	48.61	5.0	50	0	97.2	76-120	0			
1,1-Dichloroethene	49.79	5.0	50	0	99.6	73-124	0			
1,2,4-Trimethylbenzene	49.43	5.0	50	0	98.9	68-123	0			
1,2-Dibromoethane	49.23	5.0	50	0	98.5	80-120	0			
1,2-Dichloroethane	46.22	5.0	50	0	92.4	78-120	0			
1,2-Dichloropropane	48.91	5.0	50	0	97.8	80-120	0			
1,3,5-Trimethylbenzene	49.58	5.0	50	0	99.2	80-120	0			
2-Butanone	91.81	10	100	0	91.8	58-132	0			
2-Hexanone	96.56	10	100	0	96.6	61-130	0			
4-Isopropyltoluene	50.85	5.0	50	0	102	79-120	0			
4-Methyl-2-pentanone	99.31	10	100	0	99.3	65-127	0			
Acetone	97.05	10	100	0	97.1	59-137	0			
Benzene	48.7	5.0	50	0	97.4	73-121	0			
Bromodichloromethane	50.92	5.0	50	0	102	80-120	0			
Bromoform	45.94	5.0	50	0	91.9	79-120	0			
Bromomethane	53.63	5.0	50	0	107	66-137	0			
Carbon disulfide	102.1	10	100	0	102	68-141	0			
Carbon tetrachloride	48.34	5.0	50	0	96.7	75-124	0			
Chlorobenzene	47.37	5.0	50	0	94.7	80-120	0			
Chloroethane	46.87	5.0	50	0	93.7	76-121	0			
Chloroform	46.75	5.0	50	0	93.5	80-120	0			
Chloromethane	47.91	5.0	50	0	95.8	67-123	0			
cis-1,2-Dichloroethene	47.9	5.0	50	0	95.8	78-120	0			
cis-1,3-Dichloropropene	47.79	5.0	50	0	95.6	80-120	0			
Dibromochloromethane	45.87	5.0	50	0	91.7	80-120	0			
Ethylbenzene	49.68	5.0	50	0	99.4	80-120	0			
Isopropylbenzene	50.19	5.0	50	0	100	80-120	0			
m,p-Xylene	99.62	10	100	0	99.6	78-121	0			
Methyl tert-butyl ether	48.33	5.0	50	0	96.7	73-121	0			
Methylene chloride	48.14	10	50	0	96.3	65-133	0			
n-Butylbenzene	51.55	5.0	50	0	103	77-120	0			
n-Propylbenzene	49.89	5.0	50	0	99.8	78-120	0			
Naphthalene	48.15	5.0	50	0	96.3	65-127	0			
o-Xylene	49.13	5.0	50	0	98.3	80-120	0			
sec-Butylbenzene	51.04	5.0	50	0	102	78-120	0			
Styrene	49.36	5.0	50	0	98.7	80-120	0			
Tetrachloroethene	47.79	5.0	50	0	95.6	79-120	0			
Toluene	47.68	5.0	50	0	95.4	80-120	0			
trans-1,2-Dichloroethene	49.44	5.0	50	0	98.9	78-120	0			

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

QC BATCH REPORT

Batch ID: **R78552** Instrument ID **VOA2** Method: **SW8260**

trans-1,3-Dichloropropene	45.35	5.0	50	0	90.7	80-120	0
Trichloroethene	50.23	5.0	50	0	100	80-120	0
Vinyl chloride	47.8	2.0	50	0	95.6	70-127	0
Xylenes, Total	148.7	15	150	0	99.2	80-120	0
Surr: 1,2-Dichloroethane-d4	*47.52*	5.0	*50*	0	*95*	*70-125*	0
Surr: 4-Bromofluorobenzene	*48.75*	5.0	*50*	0	*97.5*	*72-125*	0
Surr: Dibromofluoromethane	*48.81*	5.0	*50*	0	*97.6*	*71-125*	0
Surr: Toluene-d8	*48.45*	5.0	*50*	0	*96.9*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78552** Instrument ID **VOA2** Method: **SW8260**

MS Sample ID: **0906547-01AMS** Units: **µg/L** Analysis Date: **6/28/2009 02:05 PM**

Client ID: Run ID: **VOA2_090628A** SeqNo: **1706559** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	47.26	5.0	50	0	94.5	80-120	0			
1,1,2,2-Tetrachloroethane	52.89	5.0	50	0	106	72-120	0			
1,1,2-Trichloroethane	51.39	5.0	50	0	103	80-120	0			
1,1-Dichloroethane	47.48	5.0	50	0	95	76-120	0			
1,1-Dichloroethene	47.1	5.0	50	0	94.2	73-124	0			
1,2,4-Trimethylbenzene	49.22	5.0	50	0	98.4	68-123	0			
1,2-Dibromoethane	53.28	5.0	50	0	107	80-120	0			
1,2-Dichloroethane	49.73	5.0	50	0	99.5	78-120	0			
1,2-Dichloropropane	48.61	5.0	50	0	97.2	80-120	0			
1,3,5-Trimethylbenzene	48.66	5.0	50	0	97.3	80-120	0			
2-Butanone	106.3	10	100	0	106	58-132	0			
2-Hexanone	108	10	100	0	108	61-130	0			
4-Isopropyltoluene	49.46	5.0	50	0	98.9	79-120	0			
4-Methyl-2-pentanone	110.7	10	100	0	111	65-127	0			
Acetone	103.9	10	100	0	104	59-137	0			
Benzene	49.22	5.0	50	0	98.4	73-121	0			
Bromodichloromethane	54.11	5.0	50	0	108	80-120	0			
Bromoform	51.07	5.0	50	0	102	79-120	0			
Bromomethane	55.81	5.0	50	0	112	66-137	0			
Carbon disulfide	97.14	10	100	0	97.1	68-141	0			
Carbon tetrachloride	47.01	5.0	50	0	94	75-124	0			
Chlorobenzene	48.37	5.0	50	0	96.7	80-120	0			
Chloroethane	45.65	5.0	50	0	91.3	76-121	0			
Chloroform	50.17	5.0	50	0	100	80-120	0			
Chloromethane	48.09	5.0	50	0	96.2	67-123	0			
cis-1,2-Dichloroethene	53.01	5.0	50	0	106	78-120	0			
cis-1,3-Dichloropropene	49.34	5.0	50	0	98.7	80-120	0			
Dibromochloromethane	49.83	5.0	50	0	99.7	80-120	0			
Ethylbenzene	49.11	5.0	50	0	98.2	80-120	0			
Isopropylbenzene	49.1	5.0	50	0	98.2	80-120	0			
m,p-Xylene	98.7	10	100	0	98.7	78-121	0			
Methyl tert-butyl ether	49.84	5.0	50	0	99.7	73-121	0			
Methylene chloride	50.22	10	50	0	100	65-133	0			
n-Butylbenzene	50.16	5.0	50	0	100	77-120	0			
n-Propylbenzene	48.48	5.0	50	0	97	78-120	0			
Naphthalene	50.7	5.0	50	0	101	65-127	0			
o-Xylene	49.52	5.0	50	0	99	80-120	0			
sec-Butylbenzene	48.43	5.0	50	0	96.9	78-120	0			
Styrene	50.71	5.0	50	0	101	80-120	0			
Tetrachloroethene	45.89	5.0	50	0	91.8	79-120	0			
Toluene	47.65	5.0	50	0	95.3	80-120	0			
trans-1,2-Dichloroethene	48.33	5.0	50	0	96.7	78-120	0			

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78552** Instrument ID **VOA2** Method: **SW8260**

trans-1,3-Dichloropropene	47.27	5.0	50	0	94.5	80-120	0
Trichloroethene	49.69	5.0	50	0	99.4	80-120	0
Vinyl chloride	45.21	2.0	50	0	90.4	70-127	0
Xylenes, Total	148.2	15	150	0	98.8	80-120	0
Surr: 1,2-Dichloroethane-d4	*49.41*	5.0	*50*	0	*98.8*	*70-125*	0
Surr: 4-Bromofluorobenzene	*49.83*	5.0	*50*	0	*99.7*	*72-125*	0
Surr: Dibromofluoromethane	*51.91*	5.0	*50*	0	*104*	*71-125*	0
Surr: Toluene-d8	*50*	5.0	*50*	0	*100*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78552** Instrument ID **VOA2** Method: **SW8260**

MSD Sample ID: **0906547-01AMSD** Units: **µg/L** Analysis Date: **6/28/2009 02:54 PM**

Client ID: Run ID: **VOA2_090628A** SeqNo: **1706561** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	46.65	5.0	50	0	93.3	80-120	47.26	1.31	20	
1,1,2,2-Tetrachloroethane	53.39	5.0	50	0	107	72-120	52.89	0.947	20	
1,1,2-Trichloroethane	50.91	5.0	50	0	102	80-120	51.39	0.945	20	
1,1-Dichloroethane	47.24	5.0	50	0	94.5	76-120	47.48	0.5	20	
1,1-Dichloroethene	46.82	5.0	50	0	93.6	73-124	47.1	0.598	20	
1,2,4-Trimethylbenzene	48.13	5.0	50	0	96.3	68-123	49.22	2.24	20	
1,2-Dibromoethane	53.26	5.0	50	0	107	80-120	53.28	0.0411	20	
1,2-Dichloroethane	49.05	5.0	50	0	98.1	78-120	49.73	1.38	20	
1,2-Dichloropropane	49.92	5.0	50	0	99.8	80-120	48.61	2.65	20	
1,3,5-Trimethylbenzene	47.11	5.0	50	0	94.2	80-120	48.66	3.23	20	
2-Butanone	103.6	10	100	0	104	58-132	106.3	2.57	20	
2-Hexanone	107.5	10	100	0	107	61-130	108	0.527	20	
4-Isopropyltoluene	46.95	5.0	50	0	93.9	79-120	49.46	5.21	20	
4-Methyl-2-pentanone	107.6	10	100	0	108	65-127	110.7	2.83	20	
Acetone	99.3	10	100	0	99.3	59-137	103.9	4.52	20	
Benzene	48.95	5.0	50	0	97.9	73-121	49.22	0.564	20	
Bromodichloromethane	53.7	5.0	50	0	107	80-120	54.11	0.763	20	
Bromoform	51.69	5.0	50	0	103	79-120	51.07	1.21	20	
Bromomethane	53.11	5.0	50	0	106	66-137	55.81	4.95	20	
Carbon disulfide	96.32	10	100	0	96.3	68-141	97.14	0.848	20	
Carbon tetrachloride	45.69	5.0	50	0	91.4	75-124	47.01	2.85	20	
Chlorobenzene	48.4	5.0	50	0	96.8	80-120	48.37	0.0621	20	
Chloroethane	45.49	5.0	50	0	91	76-121	45.65	0.343	20	
Chloroform	49.98	5.0	50	0	100	80-120	50.17	0.395	20	
Chloromethane	47.59	5.0	50	0	95.2	67-123	48.09	1.06	20	
cis-1,2-Dichloroethene	38.48	5.0	50	0	77	78-120	53.01	31.8	20	SR
cis-1,3-Dichloropropene	49.23	5.0	50	0	98.5	80-120	49.34	0.227	20	
Dibromochloromethane	49.92	5.0	50	0	99.8	80-120	49.83	0.186	20	
Ethylbenzene	48.98	5.0	50	0	98	80-120	49.11	0.266	20	
Isopropylbenzene	48	5.0	50	0	96	80-120	49.1	2.28	20	
m,p-Xylene	98.69	10	100	0	98.7	78-121	98.7	0.0119	20	
Methyl tert-butyl ether	49.81	5.0	50	0	99.6	73-121	49.84	0.0579	20	
Methylene chloride	49.43	10	50	0	98.9	65-133	50.22	1.59	20	
n-Butylbenzene	46.48	5.0	50	0	93	77-120	50.16	7.61	20	
n-Propylbenzene	46.96	5.0	50	0	93.9	78-120	48.48	3.17	20	
Naphthalene	50.01	5.0	50	0	100	65-127	50.7	1.36	20	
o-Xylene	49.32	5.0	50	0	98.6	80-120	49.52	0.389	20	
sec-Butylbenzene	45.92	5.0	50	0	91.8	78-120	48.43	5.32	20	
Styrene	50.1	5.0	50	0	100	80-120	50.71	1.22	20	
Tetrachloroethene	45.24	5.0	50	0	90.5	79-120	45.89	1.43	20	
Toluene	47.88	5.0	50	0	95.8	80-120	47.65	0.481	20	
trans-1,2-Dichloroethene	48.29	5.0	50	0	96.6	78-120	48.33	0.0891	20	

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78552** Instrument ID **VOA2** Method: **SW8260**

trans-1,3-Dichloropropene	47.5	5.0	50	0	95	80-120	47.27	0.493	20
Trichloroethene	48.79	5.0	50	0	97.6	80-120	49.69	1.83	20
Vinyl chloride	44.78	2.0	50	0	89.6	70-127	45.21	0.941	20
Xylenes, Total	148	15	150	0	98.7	80-120	148.2	0.138	20
Surr: 1,2-Dichloroethane-d4	*48.05*	5.0	*50*	0	*96.1*	*70-125*	49.41	*2.78*	*20*
Surr: 4-Bromofluorobenzene	*49.85*	5.0	*50*	0	*99.7*	*72-125*	49.83	*0.0553*	*20*
Surr: Dibromofluoromethane	*51.31*	5.0	*50*	0	*103*	*71-125*	51.91	*1.18*	*20*
Surr: Toluene-d8	*49.43*	5.0	*50*	0	*98.9*	*75-125*	50	*1.16*	*20*

The following samples were analyzed in this batch: 0906543-09A 0906543-10A 0906543-11A 0906543-12A

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78268** Instrument ID **WetChem** Method: **SM4500H+ B**

LCS Sample ID: **WLCSW1-062209-R78268** Units: **pH units** Analysis Date: **6/22/2009 01:00 PM**
Client ID: Run ID: **BALANCE1_090622A** SeqNo: **1701043** 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: **0906543-01edup** Units: **pH units** Analysis Date: **6/22/2009 01:00 PM**
Client ID: **MW-6** Run ID: **BALANCE1_090622A** SeqNo: **1701054** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6.8	0.10	0	0	0	0-0	6.78	0.295	20	H

The following samples were analyzed in this batch:

0906543-01E	0906543-02E	0906543-03E
0906543-04E	0906543-05E	0906543-06E
0906543-07E	0906543-08E	0906543-09E

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78307** Instrument ID **WetChem** Method: **M2510 B**

MBLK Sample ID: **WBLKW1-062209-R78307** Units: **µmhos/cm** Analysis Date: **6/22/2009 10:00 AM**
Client ID: Run ID: **WETCHEM_090622D** SeqNo: **1701427** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	ND	1.0								

LCS Sample ID: **WLCSW1-062209-R78307** Units: **µmhos/cm** Analysis Date: **6/22/2009 10:00 AM**
Client ID: Run ID: **WETCHEM_090622D** SeqNo: **1701428** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	1420	1.0	1413	0	100	80-120	0			

DUP Sample ID: **0906543-01edup** Units: **µmhos/cm** Analysis Date: **6/22/2009 10:00 AM**
Client ID: **MW-6** Run ID: **WETCHEM_090622D** SeqNo: **1701439** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	1370	1.0	0	0	0		1370	0	20	

The following samples were analyzed in this batch:

0906543-01E	0906543-02E	0906543-03E
0906543-04E	0906543-05E	0906543-06E
0906543-07E	0906543-08E	0906543-09E

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78375** Instrument ID **Balance1** Method: **M2540C**

MBLK Sample ID: **BLANK-R78375** Units: **mg/L** Analysis Date: **6/23/2009 03:00 PM**
Client ID: Run ID: **BALANCE1_090623B** SeqNo: **1702965** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	ND	10								

LCS Sample ID: **LCS-R78375** Units: **mg/L** Analysis Date: **6/23/2009 03:00 PM**
Client ID: Run ID: **BALANCE1_090623B** SeqNo: **1702966** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	938	10	1000	0	93.8	85-115	0			

DUP Sample ID: **0906508-07ADUP** Units: **mg/L** Analysis Date: **6/23/2009 03:00 PM**
Client ID: Run ID: **BALANCE1_090623B** SeqNo: **1702952** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	806	10	0	0	0	0-0	736	9.08	20	

The following samples were analyzed in this batch:

0906543-01E	0906543-02E	0906543-03E
0906543-04E	0906543-05E	0906543-06E
0906543-07E	0906543-08E	0906543-09E

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78376** Instrument ID **ICS3000** Method: **E300**

MBLK Sample ID: **WBLKW1-062309-R78376** Units: **mg/L** Analysis Date: **6/23/2009 10:30 AM**
Client ID: Run ID: **ICS3000_090623A** SeqNo: **1702996** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Sulfate	ND	0.50								
Surr: Selenate (surr)	*4.78*	0.10	*5*	0	*95.6*	*85-115*	0			

LCS Sample ID: **WLCSW1-062309-R78376** Units: **mg/L** Analysis Date: **6/23/2009 10:53 AM**
Client ID: Run ID: **ICS3000_090623A** SeqNo: **1702998** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.46	0.50	20	0	102	90-110	0			
Fluoride	4.211	0.10	4	0	105	90-110	0			
Sulfate	20.03	0.50	20	0	100	90-110	0			
Surr: Selenate (surr)	*4.693*	0.10	*5*	0	*93.9*	*85-115*	0			

MS Sample ID: **0906573-01AMS** Units: **mg/L** Analysis Date: **6/23/2009 12:03 PM**
Client ID: Run ID: **ICS3000_090623A** SeqNo: **1703003** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	698.3	2.5	50	662.3	72	80-120	0			SEO
Fluoride	10.37	0.50	10	0.109	103	80-120	0			
Sulfate	1432	2.5	50	1425	14.1	80-120	0			SEO
Surr: Selenate (surr)	*24.62*	0.50	*25*	0	*98.5*	*85-115*	0			

MS Sample ID: **0906540-05AMS** Units: **mg/L** Analysis Date: **6/23/2009 03:32 PM**
Client ID: Run ID: **ICS3000_090623A** SeqNo: **1703023** Prep Date: DF: **1000**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	11910	500	10000	974.1	109	80-120	0			
Fluoride	2274	100	2000	-33.7	115	80-120	0			
Sulfate	24340	500	10000	12620	117	80-120	0			
Surr: Selenate (surr)	*5455*	100	*5000*	0	*109*	*85-115*	0			

MSD Sample ID: **0906573-01AMSD** Units: **mg/L** Analysis Date: **6/23/2009 12:26 PM**
Client ID: Run ID: **ICS3000_090623A** SeqNo: **1703005** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	698	2.5	50	662.3	71.5	80-120	698.3	0.0384	20	SEO
Fluoride	10.37	0.50	10	0.109	103	80-120	10.37	0.0482	20	
Sulfate	1433	2.5	50	1425	15.5	80-120	1432	0.0505	20	SEO
Surr: Selenate (surr)	*24.66*	0.50	*25*	0	*98.6*	*85-115*	24.62	*0.142*	*20*	

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78376** Instrument ID **ICS3000** Method: **E300**

MSD Sample ID: **0906540-05AMSD** Units: **mg/L** Analysis Date: **6/23/2009 03:55 PM**

Client ID: Run ID: **ICS3000_090623A** SeqNo: **1703026** Prep Date: DF: **1000**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	11900	500	10000	974.1	109	80-120	11910	0.154	20	
Fluoride	2269	100	2000	-33.7	115	80-120	2274	0.22	20	
Sulfate	24330	500	10000	12620	117	80-120	24340	0.0588	20	
Surr: Selenate (surr)	*5452*	100	*5000*	0	*109*	*85-115*	5455	*0.044*	*20*	

The following samples were analyzed in this batch:

0906543-01E	0906543-02E	0906543-03E
0906543-04E	0906543-05E	0906543-06E
0906543-07E	0906543-08E	0906543-09E

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78443** Instrument ID **ICS3000** Method: **E300**

MBLK Sample ID: **WBLKW1-062409-R78443** Units: **mg/L** Analysis Date: **6/24/2009 10:26 AM**
Client ID: Run ID: **ICS3000_090624A** SeqNo: **1704347** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								
Surr: Selenate (surr)	*4.697*	0.10	*5*	0	*93.9*	*85-115*	0			

LCS Sample ID: **WLCSW1-062409-R78443** Units: **mg/L** Analysis Date: **6/24/2009 10:49 AM**
Client ID: Run ID: **ICS3000_090624A** SeqNo: **1704348** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.44	0.50	20	0	102	90-110	0			
Sulfate	19.97	0.50	20	0	99.9	90-110	0			
Surr: Selenate (surr)	*4.682*	0.10	*5*	0	*93.6*	*85-115*	0			

MSD Sample ID: **0906543-09EMS** Units: **mg/L** Analysis Date: **6/24/2009 03:38 PM**
Client ID: **RW-1** Run ID: **ICS3000_090624A** SeqNo: **1704360** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	84.72	2.5	50	35.22	99	80-120	0			
Sulfate	119.4	2.5	50	70.78	97.3	80-120	0			
Surr: Selenate (surr)	*24.05*	0.50	*25*	0	*96.2*	*85-115*	0			

MSD Sample ID: **0906543-09EMSD** Units: **mg/L** Analysis Date: **6/24/2009 04:02 PM**
Client ID: **RW-1** Run ID: **ICS3000_090624A** SeqNo: **1704361** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	84.57	2.5	50	35.22	98.7	80-120	84.72	0.18	20	
Sulfate	119.3	2.5	50	70.78	97.1	80-120	119.4	0.0947	20	
Surr: Selenate (surr)	*24.03*	0.50	*25*	0	*96.1*	*85-115*	24.05	*0.0707*	*20*	

MSD Sample ID: **0906543-06EMS** Units: **mg/L** Analysis Date: **6/24/2009 04:25 PM**
Client ID: **Duplicate #1** Run ID: **ICS3000_090624A** SeqNo: **1704362** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	238.2	2.5	50	167.9	141	80-120	0			S
Sulfate	146.3	2.5	50	90.37	112	80-120	0			
Surr: Selenate (surr)	*25.15*	0.50	*25*	0	*101*	*85-115*	0			

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78443** Instrument ID **ICS3000** Method: **E300**

MSD Sample ID: **0906543-06EMSD** Units: **mg/L** Analysis Date: **6/24/2009 04:48 PM**

Client ID: **Duplicate #1** Run ID: **ICS3000_090624A** SeqNo: **1704363** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	238.5	2.5	50	167.9	141	80-120	238.2	0.13	20	S
Sulfate	147	2.5	50	90.37	113	80-120	146.3	0.446	20	
Surr: Selenate (surr)	*25.12*	0.50	*25*	0	*100*	*85-115*	25.15	*0.111*	*20*	

The following samples were analyzed in this batch:

0906543-01E	0906543-02E	0906543-03E
0906543-04E	0906543-05E	0906543-06E
0906543-07E	0906543-08E	0906543-09E

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78452** Instrument ID **ICS3K2** Method: **E300**

MBLK Sample ID: **WBLKW4+-062409-R78452** Units: **mg/L** Analysis Date: **6/24/2009 06:11 PM**
Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704492** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	0.03	0.10								J
Surr: Selenate (surr)	*4.336*	0.10	*5*	0	*86.7*	*85-115*	0			

LCS Sample ID: **WLCSW4+-062409-R78452** Units: **mg/L** Analysis Date: **6/24/2009 06:34 PM**
Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704493** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	8.006	0.10	8	0	100	90-110	0			
Surr: Selenate (surr)	*4.703*	0.10	*5*	0	*94.1*	*85-115*	0			

LCSD Sample ID: **WLCSDW4+-062409-R78452** Units: **mg/L** Analysis Date: **6/24/2009 06:57 PM**
Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704494** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	8.16	0.10	8	0	102	90-110	8.006	1.91	20	
Surr: Selenate (surr)	*4.766*	0.10	*5*	0	*95.3*	*85-115*	4.703	*1.33*	*20*	

MS Sample ID: **0906543-08CMS** Units: **mg/L** Analysis Date: **6/24/2009 11:32 PM**
Client ID: **MW #7** Run ID: **ICS3K2_090624B** SeqNo: **1704505** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	5.494	0.10	4	1.665	95.7	80-120	0			
Surr: Selenate (surr)	*4.975*	0.10	*5*	0	*99.5*	*85-115*	0			

MS Sample ID: **0906543-09CMS** Units: **mg/L** Analysis Date: **6/25/2009 12:41 AM**
Client ID: **RW-1** Run ID: **ICS3K2_090624B** SeqNo: **1704508** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	5.451	0.10	4	1.616	95.9	80-120	0			
Surr: Selenate (surr)	*4.983*	0.10	*5*	0	*99.7*	*85-115*	0			

MS Sample ID: **0906513-04CMS** Units: **mg/L** Analysis Date: **6/25/2009 10:23 AM**
Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704519** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	4.123	0.10	4	0.244	97	80-120	0			
Surr: Selenate (surr)	*4.959*	0.10	*5*	0	*99.2*	*85-115*	0			

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78452** Instrument ID **ICS3K2** Method: **E300**

MSD Sample ID: **0906543-08CMSD** Units: **mg/L** Analysis Date: **6/24/2009 11:55 PM**
Client ID: **MW #7** Run ID: **ICS3K2_090624B** SeqNo: **1704506** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	5.481	0.10	4	1.665	95.4	80-120	5.494	0.237	20	
Surr: Selenate (surr)	*4.976*	0.10	*5*	0	*99.5*	*85-115*	4.975	*0.0201*	*20*	

MSD Sample ID: **0906543-09CMSD** Units: **mg/L** Analysis Date: **6/25/2009 01:04 AM**
Client ID: **RW-1** Run ID: **ICS3K2_090624B** SeqNo: **1704509** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	5.411	0.10	4	1.616	94.9	80-120	5.451	0.737	20	
Surr: Selenate (surr)	*4.988*	0.10	*5*	0	*99.8*	*85-115*	4.983	*0.1*	*20*	

MSD Sample ID: **0906513-04CMSD** Units: **mg/L** Analysis Date: **6/25/2009 10:46 AM**
Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704520** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	4.156	0.10	4	0.244	97.8	80-120	4.123	0.797	20	
Surr: Selenate (surr)	*5.02*	0.10	*5*	0	*100*	*85-115*	4.959	*1.22*	*20*	

The following samples were analyzed in this batch:

0906543-01C	0906543-02C	0906543-03C
0906543-04C	0906543-05C	0906543-06C
0906543-07C	0906543-08C	0906543-09C

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78629** Instrument ID **WetChem** Method: **SM2320B**

MBLK Sample ID: **WBLKW1-063009-R78629** Units: **mg/L** Analysis Date: **6/30/2009 12:00 PM**
Client ID: Run ID: **WETCHEM_090630E** SeqNo: **1708023** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	5.0								
Alkalinity, Carbonate (As CaCO3)	ND	5.0								
Alkalinity, Hydroxide (As CaCO3)	ND	5.0								
Alkalinity, Total (As CaCO3)	ND	5.0								

LCS Sample ID: **WLCSW1-063009-R78629** Units: **mg/L** Analysis Date: **6/30/2009 12:00 PM**
Client ID: Run ID: **WETCHEM_090630E** SeqNo: **1708024** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	964	5.0	1000	0	96.4	80-120	0			
Alkalinity, Total (As CaCO3)	964	5.0	1000	0	96.4	80-120	0			

DUP Sample ID: **0906569-01EDUP** Units: **mg/L** Analysis Date: **6/30/2009 12:00 PM**
Client ID: Run ID: **WETCHEM_090630E** SeqNo: **1708036** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	323	5.0	0	0	0	0-0	328	1.54	20	
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	323	5.0	0	0	0	0-0	328	1.54	20	

The following samples were analyzed in this batch:

0906543-01E	0906543-02E	0906543-03E
0906543-06E	0906543-07E	

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78631** Instrument ID **WetChem** Method: **SM2320B**

MBLK Sample ID: **WBLKW1-063009-R78631** Units: **mg/L** Analysis Date: **6/30/2009 03:00 PM**
Client ID: Run ID: **WETCHEM_090630F** SeqNo: **1708065** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	5.0								
Alkalinity, Carbonate (As CaCO3)	ND	5.0								
Alkalinity, Hydroxide (As CaCO3)	ND	5.0								
Alkalinity, Total (As CaCO3)	ND	5.0								

LCS Sample ID: **WLCSW1-063009-R78631** Units: **mg/L** Analysis Date: **6/30/2009 03:00 PM**
Client ID: Run ID: **WETCHEM_090630F** SeqNo: **1708066** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	981	5.0	1000	0	98.1	80-120	0			
Alkalinity, Total (As CaCO3)	981	5.0	1000	0	98.1	80-120	0			

DUP Sample ID: **0906569-02EDUP** Units: **mg/L** Analysis Date: **6/30/2009 03:00 PM**
Client ID: Run ID: **WETCHEM_090630F** SeqNo: **1708073** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	168	5.0	0	0	0	0-0	168	0	20	
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	168	5.0	0	0	0	0-0	168	0	20	

The following samples were analyzed in this batch: 0906543-04E 0906543-05E 0906543-08E 0906543-09E

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

ALS Laboratory Group

Date: 06-Jul-09

Client: Navajo Refining Company
Project: Navajo Lea Refinery Semi-Annual
WorkOrder: 0906543

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 Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Units Reported	Description
µg/L	Micrograms per Liter
µmhos/cm	
mg/L	Milligrams per Liter
pH units	

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

Chain of Custody Form

Page 1 of 1

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

ALS Project Manager: | ALS Work Order #: 0906543

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Navajo ~~Artesia~~ Refinery Semi-Annual LGA	A	VOC (8260) Select
Work Order		Project Number		B	~~TPH (8015M) GRO, DRO, ORO~~ TOTAL MERCURY
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	SVOC (8270) LL TCL
Send Report To	Darell Moore	Invoice Attn	Darrell Moore	D	Dissolved Metals (6020/7000) Select
Address	P.D. Box 159	Address	P.O. Box 159	E	Anions (300) Cl, F, SO4, NO3, NO2
				F	Alkalinity
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	pH/Specific Conductivity
Phone	(515) 748-3311	Phone	(505) 748-3311	H	TDS
Fax	(515) 746-5421	Fax	(505) 746-5421	I	Nitrate/Nitrite (300)
e-Mail Address	dgboyer@SESI-NM.com	e-Mail Address		J	Cations

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW #6	06-18-09	1240	H2O	1,2,3,8	9	X	X	X	X	X	X	X	X	X	X	
2	MW #8	06-18-09	1430			9	X	X	X	X	X	X	X	X	X	X	
3	MW #11	06-18-09	1515			9	X	X	X	X	X	X	X	X	X	X	
4	North Well	06-18-09	1600			9	X	X	X	X	X	X	X	X	X	X	
5	East Well	06-18-09	1620			9	X	X	X	X	X	X	X	X	X	X	
6	Duplicate #1					9	X	X	X	X	X	X	X	X	X	X	
7	MW #1	06-19-09	1400			9	X	X	X	X	X	X	X	X	X	X	
8	MW #7	06-19-09	1515			9	X	X	X	X	X	X	X	X	X	X	
9	RW-1	06-19-09	1616			9	X	X	X	X	X	X	X	X		X	
10	Trip Blank (3)	06-19-09	1700		1,8	6	X										

Sampler(s) Please Print & Sign: [signature]

Shipment Method: FED-X

Required Turnaround Time: (Check Box): ☑ Std 10 WK Days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour ☐ Other

Results Due Date:

Relinquished by:	Date: 06-19-09	Time: 1700	Received by:
Relinquished by:	Date: 6/20/09	Time: 0845	Received by (Laboratory): [signature]
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: 10 Work Days TAT.

Cooler ID: | Cooler Temp.:

QC Package: (Check One Box Below)
☑ Level II Std QC
☐ Level III Std QC/Raw Data
☐ Level IV SW846/CLP
☐ Other ______
☐ TRRP CheckList
☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 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.

ALS Laboratory Group

Sample Receipt Checklist

Client Name: **NAVAJO REFINING** Date/Time Received: **20-Jun-09 08:45**

Work Order: **0906543** Received by: **RDH**

Checklist completed by Robert D. Harris eSignature 20-Jun-09 Date Reviewed by: Lay Lynn F Thibault eSignature 23-Jun-09 Date

Matrices: waters
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):	3.7c,2.8c,3.1c	002	
Cooler(s)/Kit(s):	2400,1837,2354		
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: Sample MW #1 amber bottles for SVOC's were broken in transit.

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

0906545

...this portion can be removed for Recipient's records.

Date 6/15/09 FedEx Tracking Number 869790880571

Sender's Name D Royea Phone 575 394-2176

Company EST

Address 703 E Clinton

City Hobbs State NM ZIP 88240

Your Internal Billing Reference NNU-07-003

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

CUSTODY SEAL 2400
Date: 6/15 Time: 1700
Name: JERRY JORA
Company: ESS

Seal Broken By:
Date: 6/20/09

...this portion can be removed for Recipient's records.

Date 6/19/09 FedEx Tracking Number 869790880560

Sender's Name D Royea Phone 575 390-2176

Company EST

Address 703 E Clinton Ste 403

City Hobbs State NM ZIP 88240

Your Internal Billing Reference NV

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

CUSTODY SEAL 1835
Date: 6/19/09 Time: 0800
Name: JERRY JORA
Company: ESS

Seal Broken By:
Date: 6/20/09

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

CUSTODY SEAL 2391
Date: 06-19-09 Time: 1700
Name: Jora
Company: ESS

Seal Broken By:
Date: 6/20/09

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

01-Jul-2009

Darrell Moore
Navajo Refining Company
PO Box 159
Artesia, NM 88211

Tel: (575) 746-5281
Fax: (505) 746-5421

Re: Navajo Lea Refinery Semi-Annual

Work Order: **0906569**

Dear Darrell,

ALS Laboratory Group received 4 samples on 23-Jun-2009 09:10 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 47.

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

Sincerely,

JayLynn F Thibault

Electronically approved by: Lora Terrill

JayLynn F Thibault
Project Manager

ACCREDITED IN ACCORDANCE WITH nelac

Certificate No: T104704231-08-TX

ALS Laboratory Group

Date: 01-Jul-09

Client: Navajo Refining Company
Project: Navajo Lea Refinery Semi-Annual
Work Order: **0906569**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
0906569-01	MW #2	Water		6/22/2009 08:45	6/23/2009 09:10	☐
0906569-02	South Well	Water		6/22/2009 09:20	6/23/2009 09:10	☐
0906569-03	MW #1	Water		6/22/2009 10:45	6/23/2009 09:10	☐
0906569-04	Trip Blank	Water		6/22/2009 11:30	6/23/2009 09:10	☐

ALS Laboratory Group

Date: *07-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW #2
Collection Date: 6/22/2009 08:45 AM

Work Order: 0906569
Lab ID: 0906569-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/26/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/26/2009 03:13 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/29/2009**	Analyst: **ALR**
Aluminum	**0.0657**		**0.0100**	**mg/L**	1	6/30/2009 03:51 PM
Arsenic	**0.0386**		**0.00500**	**mg/L**	1	6/30/2009 03:51 PM
Barium	**0.0803**		**0.00500**	**mg/L**	1	6/30/2009 03:51 PM
Boron	**0.190**		**0.0200**	**mg/L**	1	6/30/2009 03:51 PM
Cadmium	ND		0.00200	mg/L	1	6/30/2009 03:51 PM
Calcium	**34.4**		**0.500**	**mg/L**	1	6/30/2009 03:51 PM
Chromium	ND		0.00500	mg/L	1	6/30/2009 03:51 PM
Cobalt	ND		0.00500	mg/L	1	6/30/2009 03:51 PM
Copper	**0.00621**		**0.00500**	**mg/L**	1	6/30/2009 03:51 PM
Iron	ND		0.200	mg/L	1	6/30/2009 03:51 PM
Lead	ND		0.00500	mg/L	1	6/30/2009 03:51 PM
Magnesium	**6.52**		**0.200**	**mg/L**	1	6/30/2009 03:51 PM
Manganese	***0.00583***		***0.00500***	***mg/L***	1	6/30/2009 03:51 PM
Molybdenum	ND		0.00500	mg/L	1	6/30/2009 03:51 PM
Nickel	ND		0.00500	mg/L	1	6/30/2009 03:51 PM
Potassium	**2.65**		**0.200**	**mg/L**	1	6/30/2009 03:51 PM
Selenium	ND		0.00500	mg/L	1	6/30/2009 03:51 PM
Silver	ND		0.00500	mg/L	1	6/30/2009 03:51 PM
Sodium	**256**		**10.0**	**mg/L**	50	6/30/2009 03:44 PM
Zinc	**0.110**		**0.00500**	**mg/L**	1	6/30/2009 03:51 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/25/2009**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	6/30/2009 01:29 AM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
2-Chloronaphthalene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
2-Chlorophenol	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
2-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
2-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
2-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
2-Nitrophenol	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
3&4-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 01:29 AM

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

ALS Laboratory Group

Date: *07-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW #2
Collection Date: 6/22/2009 08:45 AM

Work Order: 0906569
Lab ID: 0906569-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
3-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
4-Chloroaniline	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
4-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
4-Nitrophenol	ND		0.0010	mg/L	1	6/30/2009 01:29 AM
Acenaphthene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Acenaphthylene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Acetophenone	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Anthracene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Atrazine	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Benz(a)anthracene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Benzaldehyde	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Benzo(a)pyrene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Bis(2-ethylhexyl)phthalate	**0.0017**		**0.00020**	**mg/L**	1	6/30/2009 01:29 AM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Caprolactam	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Carbazole	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Chrysene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Di-n-butyl phthalate	**0.00031**		**0.00020**	**mg/L**	1	6/30/2009 01:29 AM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Dibenzofuran	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Diethyl phthalate	**0.00021**		**0.00020**	**mg/L**	1	6/30/2009 01:29 AM
Dimethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Fluoranthene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Fluorene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Hexachlorobenzene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Hexachlorobutadiene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Hexachloroethane	ND		0.00020	mg/L	1	6/30/2009 01:29 AM

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

ALS Laboratory Group

Date: *07-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906569
Sample ID: MW #2
Lab ID: 0906569-01
Collection Date: 6/22/2009 08:45 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Isophorone	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Naphthalene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Nitrobenzene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Pentachlorophenol	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Phenanthrene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Phenol	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Pyrene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Surr: 2,4,6-Tribromophenol	*68.2*		*34-129*	*%REC*	1	6/30/2009 01:29 AM
Surr: 2-Fluorobiphenyl	*63.7*		*40-125*	*%REC*	1	6/30/2009 01:29 AM
Surr: 2-Fluorophenol	*58.0*		*20-120*	*%REC*	1	6/30/2009 01:29 AM
Surr: 4-Terphenyl-d14	*60.9*		*40-135*	*%REC*	1	6/30/2009 01:29 AM
Surr: Nitrobenzene-d5	*53.9*		*41-120*	*%REC*	1	6/30/2009 01:29 AM
Surr: Phenol-d6	*61.1*		*20-120*	*%REC*	1	6/30/2009 01:29 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/25/2009**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
2-Butanone	ND		0.010	mg/L	1	6/24/2009 08:18 PM
2-Hexanone	ND		0.010	mg/L	1	6/24/2009 08:18 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/24/2009 08:18 PM
Acetone	ND		0.010	mg/L	1	6/24/2009 08:18 PM
Benzene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Bromoform	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Bromomethane	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Carbon disulfide	ND		0.010	mg/L	1	6/24/2009 08:18 PM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 0906569
Sample ID: MW #2 **Lab ID:** 0906569-01
Collection Date: 6/22/2009 08:45 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Chloroethane	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Chloroform	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Chloromethane	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
m,p-Xylene	ND		0.010	mg/L	1	6/24/2009 08:18 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Methylene chloride	ND		0.010	mg/L	1	6/24/2009 08:18 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Naphthalene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
o-Xylene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Styrene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Toluene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Trichloroethene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/24/2009 08:18 PM
Xylenes, Total	ND		0.015	mg/L	1	6/24/2009 08:18 PM
Surr: 1,2-Dichloroethane-d4	*115*		*70-125*	*%REC*	1	6/24/2009 08:18 PM
Surr: 4-Bromofluorobenzene	*108*		*72-125*	*%REC*	1	6/24/2009 08:18 PM
Surr: Dibromofluoromethane	*112*		*71-125*	*%REC*	1	6/24/2009 08:18 PM
Surr: Toluene-d8	*109*		*75-125*	*%REC*	1	6/24/2009 08:18 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**252**		**5.00**	**mg/L**	10	6/25/2009 07:10 PM
Fluoride	**0.765**		**0.100**	**mg/L**	1	6/25/2009 06:47 PM
Sulfate	**66.8**		**5.00**	**mg/L**	10	6/25/2009 07:10 PM
Nitrate/Nitrite (as N)	**2.69**		**0.100**	**mg/L**	1	6/25/2009 01:27 AM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	10	6/25/2009 07:10 PM
Surr: Selenate (surr)	*100*		*85-115*	*%REC*	1	6/25/2009 06:47 PM
Surr: Selenate (surr)	*100*		*85-115*	*%REC*	1	6/25/2009 01:27 AM
ALKALINITY			**SM2320B**			Analyst: **RPM**

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

ALS Laboratory Group

Date: *07-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906569
Sample ID: MW #2
Lab ID: 0906569-01
Collection Date: 6/22/2009 08:45 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**328**		**5.00**	**mg/L**	1	6/30/2009 12:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 12:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 12:00 PM
Alkalinity, Total (As CaCO3)	**328**		**5.00**	**mg/L**	1	6/30/2009 12:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**1,700**		**1.00**	**µmhos/cm**	1	6/23/2009 06:00 PM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.91**	H	**0.100**	**pH units**	1	6/23/2009 06:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**988**		**10.0**	**mg/L**	1	6/25/2009 03:00 PM

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

ALS Laboratory Group

Date: *07-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906569
Sample ID: South Well
Lab ID: 0906569-02
Collection Date: 6/22/2009 09:20 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/26/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/26/2009 03:15 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/29/2009**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	6/30/2009 03:57 PM
Arsenic	ND		0.00500	mg/L	1	6/30/2009 03:57 PM
Barium	**0.154**		**0.00500**	**mg/L**	1	6/30/2009 03:57 PM
Boron	**0.189**		**0.0200**	**mg/L**	1	6/30/2009 03:57 PM
Cadmium	ND		0.00200	mg/L	1	6/30/2009 03:57 PM
Calcium	**205**		**10.0**	**mg/L**	20	6/30/2009 10:26 PM
Chromium	ND		0.00500	mg/L	1	6/30/2009 03:57 PM
Cobalt	ND		0.00500	mg/L	1	6/30/2009 03:57 PM
Copper	ND		0.00500	mg/L	1	6/30/2009 03:57 PM
Iron	ND		0.200	mg/L	1	6/30/2009 03:57 PM
Lead	ND		0.00500	mg/L	1	6/30/2009 03:57 PM
Magnesium	**21.0**		**0.200**	**mg/L**	1	6/30/2009 03:57 PM
Manganese	ND		0.00500	mg/L	1	6/30/2009 03:57 PM
Molybdenum	ND		0.00500	mg/L	1	6/30/2009 03:57 PM
Nickel	ND		0.00500	mg/L	1	6/30/2009 03:57 PM
Potassium	**2.65**		**0.200**	**mg/L**	1	6/30/2009 03:57 PM
Selenium	ND		0.00500	mg/L	1	6/30/2009 03:57 PM
Silver	ND		0.00500	mg/L	1	6/30/2009 03:57 PM
Sodium	**97.3**		**0.200**	**mg/L**	1	6/30/2009 03:57 PM
Zinc	**0.0195**		**0.00500**	**mg/L**	1	6/30/2009 03:57 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/25/2009**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	6/30/2009 01:51 AM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
2-Chloronaphthalene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
2-Chlorophenol	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
2-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
2-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
2-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
2-Nitrophenol	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
3&4-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 01:51 AM

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

ALS Laboratory Group

Date: *07-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: South Well
Collection Date: 6/22/2009 09:20 AM

Work Order: 0906569
Lab ID: 0906569-02
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
3-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
4-Chloroaniline	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
4-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
4-Nitrophenol	ND		0.0010	mg/L	1	6/30/2009 01:51 AM
Acenaphthene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Acenaphthylene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Acetophenone	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Anthracene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Atrazine	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Benz(a)anthracene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Benzaldehyde	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Benzo(a)pyrene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Bis(2-ethylhexyl)phthalate	**0.0039**		**0.00020**	**mg/L**	1	6/30/2009 01:51 AM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Caprolactam	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Carbazole	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Chrysene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Dibenzofuran	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Diethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Dimethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Fluoranthene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Fluorene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Hexachlorobenzene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Hexachlorobutadiene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Hexachloroethane	ND		0.00020	mg/L	1	6/30/2009 01:51 AM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 0906569
Sample ID: South Well **Lab ID:** 0906569-02
Collection Date: 6/22/2009 09:20 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Isophorone	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Naphthalene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Nitrobenzene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Pentachlorophenol	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Phenanthrene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Phenol	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Pyrene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Surr: 2,4,6-Tribromophenol	*58.0*		*34-129*	*%REC*	1	6/30/2009 01:51 AM
Surr: 2-Fluorobiphenyl	*61.4*		*40-125*	*%REC*	1	6/30/2009 01:51 AM
Surr: 2-Fluorophenol	*53.1*		*20-120*	*%REC*	1	6/30/2009 01:51 AM
Surr: 4-Terphenyl-d14	*59.3*		*40-135*	*%REC*	1	6/30/2009 01:51 AM
Surr: Nitrobenzene-d5	*50.9*		*41-120*	*%REC*	1	6/30/2009 01:51 AM
Surr: Phenol-d6	*57.4*		*20-120*	*%REC*	1	6/30/2009 01:51 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/25/2009**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
2-Butanone	ND		0.010	mg/L	1	6/24/2009 08:44 PM
2-Hexanone	ND		0.010	mg/L	1	6/24/2009 08:44 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/24/2009 08:44 PM
Acetone	ND		0.010	mg/L	1	6/24/2009 08:44 PM
Benzene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Bromoform	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Bromomethane	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Carbon disulfide	ND		0.010	mg/L	1	6/24/2009 08:44 PM

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

ALS Laboratory Group

Date: *07-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: South Well
Collection Date: 6/22/2009 09:20 AM

Work Order: 0906569
Lab ID: 0906569-02
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Chloroethane	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Chloroform	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Chloromethane	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
m,p-Xylene	ND		0.010	mg/L	1	6/24/2009 08:44 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Methylene chloride	ND		0.010	mg/L	1	6/24/2009 08:44 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Naphthalene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
o-Xylene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Styrene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Toluene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Trichloroethene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/24/2009 08:44 PM
Xylenes, Total	ND		0.015	mg/L	1	6/24/2009 08:44 PM
Surr: 1,2-Dichloroethane-d4	*119*		*70-125*	*%REC*	1	6/24/2009 08:44 PM
Surr: 4-Bromofluorobenzene	*102*		*72-125*	*%REC*	1	6/24/2009 08:44 PM
Surr: Dibromofluoromethane	*103*		*71-125*	*%REC*	1	6/24/2009 08:44 PM
Surr: Toluene-d8	*107*		*75-125*	*%REC*	1	6/24/2009 08:44 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**497**		**10.0**	**mg/L**	20	6/26/2009 10:08 PM
Fluoride	**0.665**		**0.100**	**mg/L**	1	6/25/2009 07:33 PM
Sulfate	**106**		**5.00**	**mg/L**	10	6/25/2009 07:56 PM
Nitrate/Nitrite (as N)	**3.02**		**0.100**	**mg/L**	1	6/25/2009 01:49 AM
Surr: Selenate (surr)	*97.5*		*85-115*	*%REC*	20	6/26/2009 10:08 PM
Surr: Selenate (surr)	*99.4*		*85-115*	*%REC*	1	6/25/2009 01:49 AM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	1	6/25/2009 07:33 PM
Surr: Selenate (surr)	*99.7*		*85-115*	*%REC*	10	6/25/2009 07:56 PM

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

ALS Laboratory Group

Date: *07-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: South Well
Collection Date: 6/22/2009 09:20 AM

Work Order: 0906569
Lab ID: 0906569-02
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
ALKALINITY			**SM2320B**			Analyst: **RPM**
Alkalinity, Bicarbonate (As CaCO3)	**168**		**5.00**	**mg/L**	1	6/30/2009 03:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 03:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 03:00 PM
Alkalinity, Total (As CaCO3)	**168**		**5.00**	**mg/L**	1	6/30/2009 03:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**2,130**		**1.00**	**µmhos/cm**	1	6/23/2009 06:00 PM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**6.99**	H	**0.100**	**pH units**	1	6/23/2009 06:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**1,450**		**10.0**	**mg/L**	1	6/25/2009 03:00 PM

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

ALS Laboratory Group

Date: *07-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW #1
Collection Date: 6/22/2009 10:45 AM

Work Order: 0906569
Lab ID: 0906569-03
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/25/2009**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
2,4-Dimethylphenol	**0.00039**		**0.00020**	**mg/L**	1	6/30/2009 02:12 AM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	6/30/2009 02:12 AM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
2-Chloronaphthalene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
2-Chlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
2-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
2-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
2-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
2-Nitrophenol	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
3&4-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
3-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
4-Chloroaniline	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
4-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
4-Nitrophenol	ND		0.0010	mg/L	1	6/30/2009 02:12 AM
Acenaphthene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Acenaphthylene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Acetophenone	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Anthracene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Atrazine	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Benz(a)anthracene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Benzaldehyde	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Benzo(a)pyrene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Bis(2-ethylhexyl)phthalate	**0.00054**		**0.00020**	**mg/L**	1	6/30/2009 02:12 AM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW #1
Collection Date: 6/22/2009 10:45 AM

Work Order: 0906569
Lab ID: 0906569-03
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Butyl benzyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Caprolactam	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Carbazole	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Chrysene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Dibenzofuran	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Diethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Dimethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Fluoranthene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Fluorene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Hexachlorobenzene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Hexachlorobutadiene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Hexachloroethane	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Isophorone	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Naphthalene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Nitrobenzene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Pentachlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Phenanthrene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Phenol	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Pyrene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Surr: 2,4,6-Tribromophenol	*66.3*		*34-129*	*%REC*	1	6/30/2009 02:12 AM
Surr: 2-Fluorobiphenyl	*64.8*		*40-125*	*%REC*	1	6/30/2009 02:12 AM
Surr: 2-Fluorophenol	*62.6*		*20-120*	*%REC*	1	6/30/2009 02:12 AM
Surr: 4-Terphenyl-d14	*61.1*		*40-135*	*%REC*	1	6/30/2009 02:12 AM
Surr: Nitrobenzene-d5	*55.1*		*41-120*	*%REC*	1	6/30/2009 02:12 AM
Surr: Phenol-d6	*63.1*		*20-120*	*%REC*	1	6/30/2009 02:12 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/25/2009**	Analyst: **LG**
1-Methylnaphthalene	**0.00037**		**0.00020**	**mg/L**	1	6/30/2009 02:12 AM

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

ALS Laboratory Group

Date: *07-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906569
Sample ID: Trip Blank
Lab ID: 0906569-04
Collection Date: 6/22/2009 11:30 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
2-Butanone	ND		0.010	mg/L	1	6/24/2009 07:53 PM
2-Hexanone	ND		0.010	mg/L	1	6/24/2009 07:53 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/24/2009 07:53 PM
Acetone	ND		0.010	mg/L	1	6/24/2009 07:53 PM
Benzene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Bromoform	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Bromomethane	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Carbon disulfide	ND		0.010	mg/L	1	6/24/2009 07:53 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Chloroethane	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Chloroform	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Chloromethane	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
m,p-Xylene	ND		0.010	mg/L	1	6/24/2009 07:53 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Methylene chloride	ND		0.010	mg/L	1	6/24/2009 07:53 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Naphthalene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
o-Xylene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Styrene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM

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

ALS Laboratory Group

Date: *07-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906569
Sample ID: Trip Blank
Lab ID: 0906569-04
Collection Date: 6/22/2009 11:30 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tetrachloroethene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Toluene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Trichloroethene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/24/2009 07:53 PM
Xylenes, Total	ND		0.015	mg/L	1	6/24/2009 07:53 PM
Surr: 1,2-Dichloroethane-d4	*122*		*70-125*	*%REC*	1	6/24/2009 07:53 PM
Surr: 4-Bromofluorobenzene	*106*		*72-125*	*%REC*	1	6/24/2009 07:53 PM
Surr: Dibromofluoromethane	*118*		*71-125*	*%REC*	1	6/24/2009 07:53 PM
Surr: Toluene-d8	*109*		*75-125*	*%REC*	1	6/24/2009 07:53 PM

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

ALS Laboratory Group

Date: 01-Jul-09

Client: Navajo Refining Company
Project: Navajo Lea Refinery Semi-Annual
WorkOrder: 0906569

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 Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Units Reported	Description
µg/L	Micrograms per Liter
µmhos/cm	
mg/L	Milligrams per Liter
pH units	

ALS Laboratory Group

Date: 01-Jul-09

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36819** Instrument ID **Mercury** Method: **SW7470**

MBLK Sample ID: **GBLKW1-062609-36819** Units: **mg/L** Analysis Date: **6/26/2009 02:34 PM**
Client ID: Run ID: **MERCURY_090626A** SeqNo: **1705742** Prep Date: **6/26/2009** 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: **GLCSW1-062609-36819** Units: **mg/L** Analysis Date: **6/26/2009 02:36 PM**
Client ID: Run ID: **MERCURY_090626A** SeqNo: **1705743** Prep Date: **6/26/2009** 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	85-115	0			

MS Sample ID: **0906513-04FMS** Units: **mg/L** Analysis Date: **6/26/2009 02:47 PM**
Client ID: Run ID: **MERCURY_090626A** SeqNo: **1705747** Prep Date: **6/26/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00509	0.00020	0.005	-0.000022	102	85-115	0			

MSD Sample ID: **0906513-04FMSD** Units: **mg/L** Analysis Date: **6/26/2009 02:49 PM**
Client ID: Run ID: **MERCURY_090626A** SeqNo: **1705748** Prep Date: **6/26/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00515	0.00020	0.005	-0.000022	103	85-115	0.00509	1.17	20	

DUP Sample ID: **0906513-04FDUP** Units: **mg/L** Analysis Date: **6/26/2009 02:45 PM**
Client ID: Run ID: **MERCURY_090626A** SeqNo: **1705745** Prep Date: **6/26/2009** 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	-0.000022	0	20	

The following samples were analyzed in this batch: 0906569-01B 0906569-02B

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36852** Instrument ID **ICPMS02** Method: **SW6020** **(Dissolve)**

MBLK Sample ID: **MBLKW3-062909-36852** Units: **mg/L** Analysis Date: **6/30/2009 02:59 AM**
Client ID: Run ID: **ICPMS02_090629A** SeqNo: **1707215** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.0050								
Barium	ND	0.0050								
Cadmium	ND	0.0020								
Calcium	ND	0.50								
Chromium	ND	0.0050								
Lead	0.0004722	0.0050								J
Magnesium	ND	0.20								
Potassium	0.1516	0.20								J
Selenium	ND	0.0050								
Silver	ND	0.0050								
Sodium	ND	0.20								

LCS Sample ID: **MLCSW3-062909-36852** Units: **mg/L** Analysis Date: **6/30/2009 03:06 AM**
Client ID: Run ID: **ICPMS02_090629A** SeqNo: **1707219** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05204	0.0050	0.05	0	104	80-120	0			
Barium	0.0587	0.0050	0.05	0	117	80-120	0			
Cadmium	0.04887	0.0020	0.05	0	97.7	80-120	0			
Calcium	5.097	0.50	5	0	102	80-120	0			
Chromium	0.04946	0.0050	0.05	0	98.9	80-120	0			
Lead	0.05027	0.0050	0.05	0	101	80-120	0			
Magnesium	5.263	0.20	5	0	105	80-120	0			
Potassium	5.098	0.20	5	0	102	80-120	0			
Selenium	0.04922	0.0050	0.05	0	98.4	80-120	0			
Silver	0.05123	0.0050	0.05	0	102	80-120	0			

LCS Sample ID: **MLCSW3-062909-36852** Units: **mg/L** Analysis Date: **6/30/2009 02:33 PM**
Client ID: Run ID: **ICPMS02_090630A** SeqNo: **1708072** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	5.026	0.20	5	0	101	80-120	0			

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36852** Instrument ID **ICPMS02** Method: **SW6020** **(Dissolve)**

MS Sample ID: **0906535-20DMS** Units: **mg/L** Analysis Date: **6/30/2009 03:32 AM**
Client ID: Run ID: **ICPMS02_090629A** SeqNo: **1707228** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05457	0.0050	0.05	0.002463	104	75-125	0			
Barium	0.1135	0.0050	0.05	0.05365	120	75-125	0			
Cadmium	0.04975	0.0020	0.05	0.0003148	98.9	75-125	0			
Calcium	7.914	0.50	5	2.685	105	75-125	0			
Chromium	0.04901	0.0050	0.05	0.0002281	97.6	75-125	0			
Lead	0.05035	0.0050	0.05	0.0005099	99.7	75-125	0			
Magnesium	13.53	0.20	5	8.724	96.1	75-125	0			
Potassium	4.952	0.20	5	0.3725	91.6	75-125	0			
Selenium	0.0513	0.0050	0.05	0.001509	99.6	75-125	0			
Silver	0.05159	0.0050	0.05	0.0002785	103	75-125	0			

MS Sample ID: **0906535-20DMS** Units: **mg/L** Analysis Date: **6/30/2009 03:05 PM**
Client ID: Run ID: **ICPMS02_090630A** SeqNo: **1708077** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	10.59	0.20	5	5.704	97.7	75-125	0			

MSD Sample ID: **0906535-20DMSD** Units: **mg/L** Analysis Date: **6/30/2009 03:38 AM**
Client ID: Run ID: **ICPMS02_090629A** SeqNo: **1707231** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05178	0.0050	0.05	0.002463	98.6	75-125	0.05457	5.25	25	
Barium	0.1071	0.0050	0.05	0.05365	107	75-125	0.1135	5.8	25	
Cadmium	0.04741	0.0020	0.05	0.0003148	94.2	75-125	0.04975	4.82	25	
Calcium	7.575	0.50	5	2.685	97.8	75-125	7.914	4.38	25	
Chromium	0.04811	0.0050	0.05	0.0002281	95.8	75-125	0.04901	1.85	25	
Lead	0.04908	0.0050	0.05	0.0005099	97.1	75-125	0.05035	2.55	25	
Magnesium	13.12	0.20	5	8.724	87.9	75-125	13.53	3.08	25	
Potassium	4.805	0.20	5	0.3725	88.6	75-125	4.952	3.01	25	
Selenium	0.05193	0.0050	0.05	0.001509	101	75-125	0.0513	1.22	25	
Silver	0.05088	0.0050	0.05	0.0002785	101	75-125	0.05159	1.39	25	

MSD Sample ID: **0906535-20DMSD** Units: **mg/L** Analysis Date: **6/30/2009 03:12 PM**
Client ID: Run ID: **ICPMS02_090630A** SeqNo: **1708078** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	10.22	0.20	5	5.704	90.3	75-125	10.59	3.56	25	

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36852** Instrument ID **ICPMS02** Method: **SW6020** **(Dissolve)**

DUP Sample ID: **0906535-20DDUP** Units: **mg/L** Analysis Date: **6/30/2009 03:19 AM**
Client ID: Run ID: **ICPMS02_090629A** SeqNo: **1707223** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.0023	0.0050	0	0	0	0-0	0.002463	0	25	J
Barium	0.05305	0.0050	0	0	0	0-0	0.05365	1.12	25	
Cadmium	ND	0.0020	0	0	0	0-0	0.0003148	0	25	
Calcium	2.603	0.50	0	0	0	0-0	2.685	3.1	25	
Chromium	ND	0.0050	0	0	0	0-0	0.0002281	0	25	
Lead	0.0004661	0.0050	0	0	0	0-0	0.0005099	0	25	J
Magnesium	8.46	0.20	0	0	0	0-0	8.724	3.07	25	
Potassium	0.3074	0.20	0	0	0	0-0	0.3725	19.1	25	
Selenium	ND	0.0050	0	0	0	0-0	0.001509	0	25	
Silver	ND	0.0050	0	0	0	0-0	0.0002785	0	25	

DUP Sample ID: **0906535-20DDUP** Units: **mg/L** Analysis Date: **6/30/2009 02:46 PM**
Client ID: Run ID: **ICPMS02_090630A** SeqNo: **1708075** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	5.427	0.20	0	0	0	0-0	5.704	4.98	25	

The following samples were analyzed in this batch: 0906569-01D 0906569-02D

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36789** Instrument ID **SV-2** Method: **SW8270**

MBLK Sample ID: **SBLKW1-090625-36789** Units: **µg/L** Analysis Date: **6/30/2009 12:25 AM**

Client ID: Run ID: **SV-2_090629A** SeqNo: **1707484** Prep Date: **6/25/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1´-Biphenyl	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
2,4-Dichlorophenol	ND	0.20								
2,4-Dimethylphenol	ND	0.20								
2,4-Dinitrophenol	ND	1.0								
2,4-Dinitrotoluene	ND	0.20								
2,6-Dinitrotoluene	ND	0.20								
2-Chloronaphthalene	ND	0.20								
2-Chlorophenol	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.20								
2-Nitroaniline	ND	0.20								
2-Nitrophenol	ND	0.20								
3&4-Methylphenol	ND	0.20								
3,3´-Dichlorobenzidine	ND	0.20								
3-Nitroaniline	ND	0.20								
4,6-Dinitro-2-methylphenol	ND	0.20								
4-Bromophenyl phenyl ether	ND	0.20								
4-Chloro-3-methylphenol	ND	0.20								
4-Chloroaniline	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
4-Nitroaniline	ND	0.20								
4-Nitrophenol	ND	1.0								
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Acetophenone	ND	0.20								
Anthracene	ND	0.20								
Atrazine	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzaldehyde	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Caprolactam	ND	0.20								
Carbazole	ND	0.20								

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

Batch ID: **36789** Instrument ID **SV-2** Method: **SW8270**

Chrysene	ND	0.20					
Di-n-butyl phthalate	ND	0.20					
Di-n-octyl phthalate	ND	0.20					
Dibenz(a,h)anthracene	ND	0.20					
Dibenzofuran	ND	0.20					
Diethyl phthalate	ND	0.20					
Dimethyl phthalate	ND	0.20					
Fluoranthene	ND	0.20					
Fluorene	ND	0.20					
Hexachlorobenzene	ND	0.20					
Hexachlorobutadiene	ND	0.20					
Hexachlorocyclopentadiene	ND	0.20					
Hexachloroethane	ND	0.20					
Indeno(1,2,3-cd)pyrene	ND	0.20					
Isophorone	ND	0.20					
N-Nitrosodi-n-propylamine	ND	0.20					
N-Nitrosodiphenylamine	ND	0.20					
Naphthalene	ND	0.20					
Nitrobenzene	ND	0.20					
Pentachlorophenol	ND	0.20					
Phenanthrene	ND	0.20					
Phenol	ND	0.20					
Pyrene	ND	0.20					
Surr: 2,4,6-Tribromophenol	*3.498*	0.20	*5*	0	*70*	*34-129*	0
Surr: 2-Fluorobiphenyl	*3.84*	0.20	*5*	0	*76.8*	*40-125*	0
Surr: 2-Fluorophenol	*3.328*	0.20	*5*	0	*66.6*	*20-120*	0
Surr: 4-Terphenyl-d14	*3.507*	0.20	*5*	0	*70.1*	*40-135*	0
Surr: Nitrobenzene-d5	*3.297*	0.20	*5*	0	*65.9*	*41-120*	0
Surr: Phenol-d6	*3.67*	0.20	*5*	0	*73.4*	*20-120*	0

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36789** Instrument ID **SV-2** Method: **SW8270**

LCS Sample ID: **SLCSW1-090625-36789** Units: **µg/L** Analysis Date: **6/30/2009 12:46 AM**

Client ID: Run ID: **SV-2_090629A** SeqNo: **1707485** Prep Date: **6/25/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	3.824	0.20	5	0	76.5	45-125	0			
2,4,5-Trichlorophenol	4.172	0.20	5	0	83.4	46-120	0			
2,4,6-Trichlorophenol	3.959	0.20	5	0	79.2	42-120	0			
2,4-Dichlorophenol	4.062	0.20	5	0	81.2	49-120	0			
2,4-Dimethylphenol	3.36	0.20	5	0	67.2	35-120	0			
2,4-Dinitrophenol	3.938	1.0	5	0	78.8	15-120	0			
2,4-Dinitrotoluene	4.048	0.20	5	0	81	50-122	0			
2,6-Dinitrotoluene	3.932	0.20	5	0	78.6	50-120	0			
2-Chloronaphthalene	4.2	0.20	5	0	84	50-120	0			
2-Chlorophenol	3.749	0.20	5	0	75	40-120	0			
2-Methylnaphthalene	4.113	0.20	5	0	82.3	50-120	0			
2-Methylphenol	3.983	0.20	5	0	79.7	45-120	0			
2-Nitroaniline	4.282	0.20	5	0	85.6	28-139	0			
2-Nitrophenol	3.818	0.20	5	0	76.4	40-120	0			
3&4-Methylphenol	3.937	0.20	5	0	78.7	35-120	0			
3,3'-Dichlorobenzidine	3.414	0.20	5	0	68.3	15-120	0			
3-Nitroaniline	3.235	0.20	5	0	64.7	30-120	0			
4,6-Dinitro-2-methylphenol	4.358	0.20	5	0	87.2	25-121	0			
4-Bromophenyl phenyl ether	4.15	0.20	5	0	83	45-120	0			
4-Chloro-3-methylphenol	3.771	0.20	5	0	75.4	47-120	0			
4-Chloroaniline	3.183	0.20	5	0	63.7	20-120	0			
4-Chlorophenyl phenyl ether	4.054	0.20	5	0	81.1	50-120	0			
4-Nitroaniline	3.583	0.20	5	0	71.7	30-133	0			
4-Nitrophenol	3.447	1.0	5	0	68.9	30-130	0			
Acenaphthene	3.942	0.20	5	0	78.8	45-120	0			
Acenaphthylene	3.896	0.20	5	0	77.9	47-120	0			
Acetophenone	3.789	0.20	5	0	75.8	40-120	0			
Anthracene	4.192	0.20	5	0	83.8	45-120	0			
Atrazine	4.116	0.20	5	0	82.3	40-130	0			
Benz(a)anthracene	4.23	0.20	5	0	84.6	40-120	0			
Benzaldehyde	3.221	0.20	5	0	64.4	35-130	0			
Benzo(a)pyrene	4.244	0.20	5	0	84.9	45-120	0			
Benzo(b)fluoranthene	4.168	0.20	5	0	83.4	50-120	0			
Benzo(g,h,i)perylene	4.156	0.20	5	0	83.1	42-127	0			
Benzo(k)fluoranthene	4.328	0.20	5	0	86.6	45-127	0			
Bis(2-chloroethoxy)methane	3.622	0.20	5	0	72.4	45-120	0			
Bis(2-chloroethyl)ether	3.64	0.20	5	0	72.8	37-121	0			
Bis(2-chloroisopropyl)ether	3.02	0.20	5	0	60.4	40-120	0			
Bis(2-ethylhexyl)phthalate	4.228	0.20	5	0	84.6	40-139	0			
Butyl benzyl phthalate	4.235	0.20	5	0	84.7	47-123	0			
Caprolactam	4.197	0.20	5	0	83.9	35-134	0			
Carbazole	4.03	0.20	5	0	80.6	42-128	0			

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

Batch ID: **36789** Instrument ID **SV-2** Method: **SW8270**

Chrysene	4.098	0.20	5	0	82	43-120	0
Di-n-butyl phthalate	4.211	0.20	5	0	84.2	45-123	0
Di-n-octyl phthalate	4.46	0.20	5	0	89.2	45-129	0
Dibenz(a,h)anthracene	4.128	0.20	5	0	82.6	45-125	0
Dibenzofuran	3.957	0.20	5	0	79.1	50-120	0
Diethyl phthalate	3.92	0.20	5	0	78.4	41-120	0
Dimethyl phthalate	3.942	0.20	5	0	78.8	40-122	0
Fluoranthene	4.269	0.20	5	0	85.4	45-125	0
Fluorene	4.115	0.20	5	0	82.3	49-120	0
Hexachlorobenzene	4.121	0.20	5	0	82.4	48-120	0
Hexachlorobutadiene	3.829	0.20	5	0	76.6	40-120	0
Hexachlorocyclopentadiene	3.492	0.20	5	0	69.8	34-136	0
Hexachloroethane	3.383	0.20	5	0	67.7	40-120	0
Indeno(1,2,3-cd)pyrene	4.268	0.20	5	0	85.4	41-128	0
Isophorone	3.532	0.20	5	0	70.6	40-121	0
N-Nitrosodi-n-propylamine	3.548	0.20	5	0	71	40-120	0
N-Nitrosodiphenylamine	3.965	0.20	5	0	79.3	40-125	0
Naphthalene	3.935	0.20	5	0	78.7	45-120	0
Nitrobenzene	3.434	0.20	5	0	68.7	44-120	0
Pentachlorophenol	3.802	0.20	5	0	76	19-121	0
Phenanthrene	4.172	0.20	5	0	83.4	45-121	0
Phenol	3.723	0.20	5	0	74.5	20-124	0
Pyrene	4.145	0.20	5	0	82.9	40-130	0
Surr: 2,4,6-Tribromophenol	*3.673*	0.20	*5*	0	*73.5*	*34-129*	0
Surr: 2-Fluorobiphenyl	*3.657*	0.20	*5*	0	*73.1*	*40-125*	0
Surr: 2-Fluorophenol	*3.349*	0.20	*5*	0	*67*	*20-120*	0
Surr: 4-Terphenyl-d14	*3.347*	0.20	*5*	0	*66.9*	*40-135*	0
Surr: Nitrobenzene-d5	*3.175*	0.20	*5*	0	*63.5*	*41-120*	0
Surr: Phenol-d6	*3.522*	0.20	*5*	0	*70.4*	*20-120*	0

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36789** Instrument ID **SV-2** Method: **SW8270**

LCSD Sample ID: **SLCSDW1-090625-36789** Units: **µg/L** Analysis Date: **6/30/2009 01:08 AM**

Client ID: Run ID: **SV-2_090629A** SeqNo: **1707486** Prep Date: **6/25/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	3.736	0.20	5	0	74.7	45-125	3.824	2.33	20	
2,4,5-Trichlorophenol	3.994	0.20	5	0	79.9	46-120	4.172	4.37	20	
2,4,6-Trichlorophenol	4.043	0.20	5	0	80.9	42-120	3.959	2.1	20	
2,4-Dichlorophenol	4.01	0.20	5	0	80.2	49-120	4.062	1.29	20	
2,4-Dimethylphenol	3.294	0.20	5	0	65.9	35-120	3.36	2	20	
2,4-Dinitrophenol	4.084	1.0	5	0	81.7	15-120	3.938	3.65	20	
2,4-Dinitrotoluene	4.033	0.20	5	0	80.7	50-122	4.048	0.374	20	
2,6-Dinitrotoluene	3.927	0.20	5	0	78.5	50-120	3.932	0.123	20	
2-Chloronaphthalene	4.227	0.20	5	0	84.5	50-120	4.2	0.648	20	
2-Chlorophenol	3.876	0.20	5	0	77.5	40-120	3.749	3.33	20	
2-Methylnaphthalene	3.927	0.20	5	0	78.5	50-120	4.113	4.61	20	
2-Methylphenol	4.022	0.20	5	0	80.4	45-120	3.983	0.966	20	
2-Nitroaniline	4.223	0.20	5	0	84.5	28-139	4.282	1.4	20	
2-Nitrophenol	3.76	0.20	5	0	75.2	40-120	3.818	1.53	20	
3&4-Methylphenol	4.054	0.20	5	0	81.1	35-120	3.937	2.93	20	
3,3'-Dichlorobenzidine	3.695	0.20	5	0	73.9	15-120	3.414	7.9	20	
3-Nitroaniline	3.545	0.20	5	0	70.9	30-120	3.235	9.15	20	
4,6-Dinitro-2-methylphenol	4.301	0.20	5	0	86	25-121	4.358	1.33	20	
4-Bromophenyl phenyl ether	4.06	0.20	5	0	81.2	45-120	4.15	2.19	20	
4-Chloro-3-methylphenol	3.603	0.20	5	0	72.1	47-120	3.771	4.57	20	
4-Chloroaniline	3.62	0.20	5	0	72.4	20-120	3.183	12.8	20	
4-Chlorophenyl phenyl ether	3.858	0.20	5	0	77.2	50-120	4.054	4.95	20	
4-Nitroaniline	3.585	0.20	5	0	71.7	30-133	3.583	0.0492	20	
4-Nitrophenol	3.417	1.0	5	0	68.3	30-130	3.447	0.859	20	
Acenaphthene	3.595	0.20	5	0	71.9	45-120	3.942	9.21	20	
Acenaphthylene	3.725	0.20	5	0	74.5	47-120	3.896	4.51	20	
Acetophenone	3.709	0.20	5	0	74.2	40-120	3.789	2.15	20	
Anthracene	4.199	0.20	5	0	84	45-120	4.192	0.168	20	
Atrazine	4.047	0.20	5	0	80.9	40-130	4.116	1.69	20	
Benz(a)anthracene	4.082	0.20	5	0	81.6	40-120	4.23	3.57	20	
Benzaldehyde	3.258	0.20	5	0	65.2	35-130	3.221	1.16	20	
Benzo(a)pyrene	4.218	0.20	5	0	84.4	45-120	4.244	0.624	20	
Benzo(b)fluoranthene	4.861	0.20	5	0	97.2	50-120	4.168	15.4	20	
Benzo(g,h,i)perylene	4.275	0.20	5	0	85.5	42-127	4.156	2.82	20	
Benzo(k)fluoranthene	3.844	0.20	5	0	76.9	45-127	4.328	11.8	20	
Bis(2-chloroethoxy)methane	3.592	0.20	5	0	71.8	45-120	3.622	0.829	20	
Bis(2-chloroethyl)ether	3.722	0.20	5	0	74.4	37-121	3.64	2.22	20	
Bis(2-chloroisopropyl)ether	3.091	0.20	5	0	61.8	40-120	3.02	2.34	20	
Bis(2-ethylhexyl)phthalate	4.107	0.20	5	0	82.1	40-139	4.228	2.92	20	
Butyl benzyl phthalate	4.235	0.20	5	0	84.7	47-123	4.235	0.0137	20	
Caprolactam	4.142	0.20	5	0	82.8	35-134	4.197	1.31	20	
Carbazole	3.927	0.20	5	0	78.5	42-128	4.03	2.61	20	

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36789** Instrument ID **SV-2** Method: **SW8270**

Chrysene	4.239	0.20	5	0	84.8	43-120	4.098	3.38	20
Di-n-butyl phthalate	4.071	0.20	5	0	81.4	45-123	4.211	3.38	20
Di-n-octyl phthalate	4.497	0.20	5	0	89.9	45-129	4.46	0.818	20
Dibenz(a,h)anthracene	4.017	0.20	5	0	80.3	45-125	4.128	2.71	20
Dibenzofuran	3.928	0.20	5	0	78.6	50-120	3.957	0.751	20
Diethyl phthalate	3.864	0.20	5	0	77.3	41-120	3.92	1.45	20
Dimethyl phthalate	3.915	0.20	5	0	78.3	40-122	3.942	0.686	20
Fluoranthene	4.199	0.20	5	0	84	45-125	4.269	1.65	20
Fluorene	3.982	0.20	5	0	79.6	49-120	4.115	3.3	20
Hexachlorobenzene	4.038	0.20	5	0	80.8	48-120	4.121	2.02	20
Hexachlorobutadiene	3.667	0.20	5	0	73.3	40-120	3.829	4.3	20
Hexachlorocyclopentadiene	3.382	0.20	5	0	67.6	34-136	3.492	3.2	20
Hexachloroethane	3.525	0.20	5	0	70.5	40-120	3.383	4.1	20
Indeno(1,2,3-cd)pyrene	4.594	0.20	5	0	91.9	41-128	4.268	7.36	20
Isophorone	3.609	0.20	5	0	72.2	40-121	3.532	2.15	20
N-Nitrosodi-n-propylamine	3.604	0.20	5	0	72.1	40-120	3.548	1.55	20
N-Nitrosodiphenylamine	4.015	0.20	5	0	80.3	40-125	3.965	1.24	20
Naphthalene	3.919	0.20	5	0	78.4	45-120	3.935	0.408	20
Nitrobenzene	3.351	0.20	5	0	67	44-120	3.434	2.44	20
Pentachlorophenol	3.952	0.20	5	0	79	19-121	3.802	3.87	20
Phenanthrene	4.147	0.20	5	0	82.9	45-121	4.172	0.601	20
Phenol	3.784	0.20	5	0	75.7	20-124	3.723	1.62	20
Pyrene	4.33	0.20	5	0	86.6	40-130	4.145	4.37	20
Surr: 2,4,6-Tribromophenol	*3.732*	0.20	*5*	0	*74.6*	*34-129*	3.673	*1.58*	*20*
Surr: 2-Fluorobiphenyl	*3.582*	0.20	*5*	0	*71.6*	*40-125*	3.657	*2.07*	*20*
Surr: 2-Fluorophenol	*3.36*	0.20	*5*	0	*67.2*	*20-120*	3.349	*0.304*	*20*
Surr: 4-Terphenyl-d14	*3.396*	0.20	*5*	0	*67.9*	*40-135*	3.347	*1.46*	*20*
Surr: Nitrobenzene-d5	*3.016*	0.20	*5*	0	*60.3*	*41-120*	3.175	*5.16*	*20*
Surr: Phenol-d6	*3.636*	0.20	*5*	0	*72.7*	*20-120*	3.522	*3.18*	*20*

The following samples were analyzed in this batch: 0906569-01F 0906569-02F 0906569-03A

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

MBLK Sample ID: **VBLKW-062409-R78455** Units: **µg/L** Analysis Date: **6/24/2009 10:32 AM**

Client ID: Run ID: **VOA1_090624B** SeqNo: **1704552** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
2-Butanone	ND	10								
2-Hexanone	ND	10								
4-Isopropyltoluene	ND	5.0								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
Isopropylbenzene	0.9263	5.0								J
m,p-Xylene	ND	10								
Methyl tert-butyl ether	ND	5.0								
Methylene chloride	ND	10								
n-Butylbenzene	ND	5.0								
n-Propylbenzene	ND	5.0								
Naphthalene	ND	5.0								
o-Xylene	ND	5.0								
sec-Butylbenzene	ND	5.0								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,2-Dichloroethene	ND	5.0								

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

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Vinyl chloride	ND	2.0					
Xylenes, Total	ND	15					
Surr: 1,2-Dichloroethane-d4	*51*	5.0	*50*	0	*102*	*70-125*	0
Surr: 4-Bromofluorobenzene	*50.51*	5.0	*50*	0	*101*	*72-125*	0
Surr: Dibromofluoromethane	*52.86*	5.0	*50*	0	*106*	*71-125*	0
Surr: Toluene-d8	*47.37*	5.0	*50*	0	*94.7*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

LCS Sample ID: **VLCSW-062409-R78455** Units: **µg/L** Analysis Date: **6/24/2009 09:41 AM**

Client ID: Run ID: **VOA1_090624B** SeqNo: **1704551** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	53.79	5.0	50	0	108	80-120	0			
1,1,2,2-Tetrachloroethane	44.98	5.0	50	0	90	72-120	0			
1,1,2-Trichloroethane	45.42	5.0	50	0	90.8	80-120	0			
1,1-Dichloroethane	50.55	5.0	50	0	101	76-120	0			
1,1-Dichloroethene	49.01	5.0	50	0	98	73-124	0			
1,2,4-Trimethylbenzene	50.51	5.0	50	0	101	68-123	0			
1,2-Dibromoethane	44.29	5.0	50	0	88.6	80-120	0			
1,2-Dichloroethane	49.11	5.0	50	0	98.2	78-120	0			
1,2-Dichloropropane	48.3	5.0	50	0	96.6	80-120	0			
1,3,5-Trimethylbenzene	47.98	5.0	50	0	96	80-120	0			
2-Butanone	99.09	10	100	0	99.1	58-132	0			
2-Hexanone	90.94	10	100	0	90.9	61-130	0			
4-Isopropyltoluene	49.2	5.0	50	0	98.4	79-120	0			
4-Methyl-2-pentanone	96.85	10	100	0	96.8	65-127	0			
Acetone	86.75	10	100	0	86.7	59-137	0			
Benzene	48.16	5.0	50	0	96.3	73-121	0			
Bromodichloromethane	48.07	5.0	50	0	96.1	80-120	0			
Bromoform	48.75	5.0	50	0	97.5	79-120	0			
Bromomethane	49.49	5.0	50	0	99	66-137	0			
Carbon disulfide	99.86	10	100	0	99.9	68-141	0			
Carbon tetrachloride	50.62	5.0	50	0	101	75-124	0			
Chlorobenzene	48.1	5.0	50	0	96.2	80-120	0			
Chloroethane	43.53	5.0	50	0	87.1	76-121	0			
Chloroform	48.32	5.0	50	0	96.6	80-120	0			
Chloromethane	47.53	5.0	50	0	95.1	67-123	0			
cis-1,2-Dichloroethene	50.56	5.0	50	0	101	78-120	0			
cis-1,3-Dichloropropene	49.95	5.0	50	0	99.9	80-120	0			
Dibromochloromethane	50.32	5.0	50	0	101	80-120	0			
Ethylbenzene	47.96	5.0	50	0	95.9	80-120	0			
Isopropylbenzene	49.8	5.0	50	0	99.6	80-120	0			
m,p-Xylene	92.82	10	100	0	92.8	78-121	0			
Methyl tert-butyl ether	48.35	5.0	50	0	96.7	73-121	0			
Methylene chloride	48.3	10	50	0	96.6	65-133	0			
n-Butylbenzene	47.06	5.0	50	0	94.1	77-120	0			
n-Propylbenzene	47.6	5.0	50	0	95.2	78-120	0			
Naphthalene	46.79	5.0	50	0	93.6	65-127	0			
o-Xylene	47.66	5.0	50	0	95.3	80-120	0			
sec-Butylbenzene	49.83	5.0	50	0	99.7	78-120	0			
Styrene	48.16	5.0	50	0	96.3	80-120	0			
Tetrachloroethene	48.22	5.0	50	0	96.4	79-120	0			
Toluene	47.27	5.0	50	0	94.5	80-120	0			
trans-1,2-Dichloroethene	48.64	5.0	50	0	97.3	78-120	0			

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

QC BATCH REPORT

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	52.18	5.0	50	0	104	80-120	0
Trichloroethene	53.01	5.0	50	0	106	80-120	0
Vinyl chloride	44.95	2.0	50	0	89.9	70-127	0
Xylenes, Total	140.5	15	150	0	93.7	80-120	0
Surr: 1,2-Dichloroethane-d4	*49.32*	5.0	*50*	0	*98.6*	*70-125*	0
Surr: 4-Bromofluorobenzene	*53.42*	5.0	*50*	0	*107*	*72-125*	0
Surr: Dibromofluoromethane	*51.97*	5.0	*50*	0	*104*	*71-125*	0
Surr: Toluene-d8	*50.86*	5.0	*50*	0	*102*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

MS Sample ID: **0906452-02AMS** Units: **µg/L** Analysis Date: **6/24/2009 01:55 PM**

Client ID: Run ID: **VOA1_090624B** SeqNo: **1704556** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	50.79	5.0	50	0	102	80-120	0			
1,1,2,2-Tetrachloroethane	53.12	5.0	50	0	106	72-120	0			
1,1,2-Trichloroethane	46.4	5.0	50	0	92.8	80-120	0			
1,1-Dichloroethane	52.92	5.0	50	0	106	76-120	0			
1,1-Dichloroethene	50.45	5.0	50	0	101	73-124	0			
1,2,4-Trimethylbenzene	45.76	5.0	50	0	91.5	68-123	0			
1,2-Dibromoethane	48.09	5.0	50	0	96.2	80-120	0			
1,2-Dichloroethane	49.59	5.0	50	0	99.2	78-120	0			
1,2-Dichloropropane	48.63	5.0	50	0	97.3	80-120	0			
1,3,5-Trimethylbenzene	51.45	5.0	50	0	103	80-120	0			
2-Butanone	116.3	10	100	0	116	58-132	0			
2-Hexanone	104.2	10	100	0	104	61-130	0			
4-Isopropyltoluene	44.81	5.0	50	0	89.6	79-120	0			
4-Methyl-2-pentanone	103.7	10	100	0	104	65-127	0			
Acetone	101.1	10	100	0	101	59-137	0			
Benzene	46.36	5.0	50	0	92.7	73-121	0			
Bromodichloromethane	50.39	5.0	50	0	101	80-120	0			
Bromoform	48.67	5.0	50	0	97.3	79-120	0			
Bromomethane	59.01	5.0	50	0	118	66-137	0			
Carbon disulfide	99.31	10	100	0	99.3	68-141	0			
Carbon tetrachloride	47.94	5.0	50	0	95.9	75-124	0			
Chlorobenzene	47.11	5.0	50	0	94.2	80-120	0			
Chloroethane	45.18	5.0	50	0	90.4	76-121	0			
Chloroform	51.79	5.0	50	0	104	80-120	0			
Chloromethane	42.55	5.0	50	0	85.1	67-123	0			
cis-1,2-Dichloroethene	52.17	5.0	50	0	104	78-120	0			
cis-1,3-Dichloropropene	47.43	5.0	50	0	94.9	80-120	0			
Dibromochloromethane	49.37	5.0	50	0	98.7	80-120	0			
Ethylbenzene	46.69	5.0	50	0	93.4	80-120	0			
Isopropylbenzene	45.98	5.0	50	0.6308	90.7	80-120	0			
m,p-Xylene	90.16	10	100	0	90.2	78-121	0			
Methyl tert-butyl ether	58.38	5.0	50	0	117	73-121	0			
Methylene chloride	49.61	10	50	0	99.2	65-133	0			
n-Butylbenzene	48.24	5.0	50	0	96.5	77-120	0			
n-Propylbenzene	48.14	5.0	50	0	96.3	78-120	0			
Naphthalene	49.66	5.0	50	0	99.3	65-127	0			
o-Xylene	47.94	5.0	50	0	95.9	80-120	0			
sec-Butylbenzene	50.01	5.0	50	0	100	78-120	0			
Styrene	46.05	5.0	50	0	92.1	80-120	0			
Tetrachloroethene	45	5.0	50	0	90	79-120	0			
Toluene	45.29	5.0	50	0	90.6	80-120	0			
trans-1,2-Dichloroethene	52.19	5.0	50	0	104	78-120	0			

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

QC BATCH REPORT

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	54.28	5.0	50	0	109	80-120	0
Trichloroethene	50.51	5.0	50	0	101	80-120	0
Vinyl chloride	47.05	2.0	50	0	94.1	70-127	0
Xylenes, Total	138.1	15	150	0	92.1	80-120	0
Surr: 1,2-Dichloroethane-d4	*54.41*	5.0	*50*	0	*109*	*70-125*	0
Surr: 4-Bromofluorobenzene	*49.09*	5.0	*50*	0	*98.2*	*72-125*	0
Surr: Dibromofluoromethane	*53.22*	5.0	*50*	0	*106*	*71-125*	0
Surr: Toluene-d8	*48.87*	5.0	*50*	0	*97.7*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

MSD Sample ID: **0906452-02AMSD** Units: **µg/L** Analysis Date: **6/24/2009 02:21 PM**

Client ID: Run ID: **VOA1_090624B** SeqNo: **1704557** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	48.34	5.0	50	0	96.7	80-120	50.79	4.94	20	
1,1,2,2-Tetrachloroethane	51.09	5.0	50	0	102	72-120	53.12	3.89	20	
1,1,2-Trichloroethane	46.2	5.0	50	0	92.4	80-120	46.4	0.427	20	
1,1-Dichloroethane	49.05	5.0	50	0	98.1	76-120	52.92	7.58	20	
1,1-Dichloroethene	45.05	5.0	50	0	90.1	73-124	50.45	11.3	20	
1,2,4-Trimethylbenzene	49.83	5.0	50	0	99.7	68-123	45.76	8.5	20	
1,2-Dibromoethane	50.02	5.0	50	0	100	80-120	48.09	3.94	20	
1,2-Dichloroethane	46.78	5.0	50	0	93.6	78-120	49.59	5.84	20	
1,2-Dichloropropane	46.95	5.0	50	0	93.9	80-120	48.63	3.52	20	
1,3,5-Trimethylbenzene	49.63	5.0	50	0	99.3	80-120	51.45	3.59	20	
2-Butanone	116.2	10	100	0	116	58-132	116.3	0.0744	20	
2-Hexanone	104.7	10	100	0	105	61-130	104.2	0.433	20	
4-Isopropyltoluene	44.08	5.0	50	0	88.2	79-120	44.81	1.64	20	
4-Methyl-2-pentanone	109.2	10	100	0	109	65-127	103.7	5.23	20	
Acetone	97.66	10	100	0	97.7	59-137	101.1	3.44	20	
Benzene	44.38	5.0	50	0	88.8	73-121	46.36	4.36	20	
Bromodichloromethane	46.94	5.0	50	0	93.9	80-120	50.39	7.08	20	
Bromoform	48.71	5.0	50	0	97.4	79-120	48.67	0.0827	20	
Bromomethane	50.26	5.0	50	0	101	66-137	59.01	16	20	
Carbon disulfide	93.76	10	100	0	93.8	68-141	99.31	5.75	20	
Carbon tetrachloride	43.14	5.0	50	0	86.3	75-124	47.94	10.5	20	
Chlorobenzene	46.77	5.0	50	0	93.5	80-120	47.11	0.733	20	
Chloroethane	42.27	5.0	50	0	84.5	76-121	45.18	6.65	20	
Chloroform	49.11	5.0	50	0	98.2	80-120	51.79	5.32	20	
Chloromethane	45.41	5.0	50	0	90.8	67-123	42.55	6.51	20	
cis-1,2-Dichloroethene	51.31	5.0	50	0	103	78-120	52.17	1.67	20	
cis-1,3-Dichloropropene	48.71	5.0	50	0	97.4	80-120	47.43	2.67	20	
Dibromochloromethane	50.31	5.0	50	0	101	80-120	49.37	1.87	20	
Ethylbenzene	47.52	5.0	50	0	95	80-120	46.69	1.78	20	
Isopropylbenzene	45.46	5.0	50	0.6308	89.7	80-120	45.98	1.15	20	
m,p-Xylene	93.71	10	100	0	93.7	78-121	90.16	3.86	20	
Methyl tert-butyl ether	58.99	5.0	50	0	118	73-121	58.38	1.04	20	
Methylene chloride	47.42	10	50	0	94.8	65-133	49.61	4.51	20	
n-Butylbenzene	44.25	5.0	50	0	88.5	77-120	48.24	8.63	20	
n-Propylbenzene	49.59	5.0	50	0	99.2	78-120	48.14	2.96	20	
Naphthalene	51.68	5.0	50	0	103	65-127	49.66	4	20	
o-Xylene	49.28	5.0	50	0	98.6	80-120	47.94	2.75	20	
sec-Butylbenzene	48.14	5.0	50	0	96.3	78-120	50.01	3.81	20	
Styrene	48.2	5.0	50	0	96.4	80-120	46.05	4.56	20	
Tetrachloroethene	42.51	5.0	50	0	85	79-120	45	5.68	20	
Toluene	43.63	5.0	50	0	87.3	80-120	45.29	3.74	20	
trans-1,2-Dichloroethene	49.77	5.0	50	0	99.5	78-120	52.19	4.74	20	

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	50.81	5.0	50	0	102	80-120	54.28	6.59	20
Trichloroethene	45.27	5.0	50	0	90.5	80-120	50.51	10.9	20
Vinyl chloride	42.07	2.0	50	0	84.1	70-127	47.05	11.2	20
Xylenes, Total	143	15	150	0	95.3	80-120	138.1	3.48	20
Surr: 1,2-Dichloroethane-d4	*51.8*	5.0	*50*	0	*104*	*70-125*	54.41	*4.92*	*20*
Surr: 4-Bromofluorobenzene	*50.34*	5.0	*50*	0	*101*	*72-125*	49.09	*2.5*	*20*
Surr: Dibromofluoromethane	*52.44*	5.0	*50*	0	*105*	*71-125*	53.22	*1.47*	*20*
Surr: Toluene-d8	*49.47*	5.0	*50*	0	*98.9*	*75-125*	48.87	*1.23*	*20*

The following samples were analyzed in this batch: 0906569-01A 0906569-02A 0906569-04A

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78365** Instrument ID **WetChem** Method: **M2510 B**

MBLK Sample ID: **WBLKW1-062309-R78365** Units: **µmhos/cm** Analysis Date: **6/23/2009 06:00 PM**
Client ID: Run ID: **WETCHEM_090623J** SeqNo: **1702768** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	ND	1.0								

LCS Sample ID: **WLCSW1-062309-R78365** Units: **µmhos/cm** Analysis Date: **6/23/2009 06:00 PM**
Client ID: Run ID: **WETCHEM_090623J** SeqNo: **1702769** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	1450	1.0	1413	0	103	80-120	0			

DUP Sample ID: **0906569-01edup** Units: **µmhos/cm** Analysis Date: **6/23/2009 06:00 PM**
Client ID: **MW #2** Run ID: **WETCHEM_090623J** SeqNo: **1702775** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	1700	1.0	0	0	0		1700	0	20	

The following samples were analyzed in this batch: 0906569-01E 0906569-02E

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78367** Instrument ID **WetChem** Method: **SM4500H+ B**

LCS Sample ID: **WLCSW1-062309-R78367** Units: **pH units** Analysis Date: **6/23/2009 06:00 PM**
Client ID: Run ID: **WETCHEM_090623K** SeqNo: **1702791** 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: **0906569-01edup** Units: **pH units** Analysis Date: **6/23/2009 06:00 PM**
Client ID: **MW #2** Run ID: **WETCHEM_090623K** SeqNo: **1702795** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.89	0.10	0	0	0	0-0	7.91	0.253	20	H

The following samples were analyzed in this batch: 0906569-01E 0906569-02E

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78452** Instrument ID **ICS3K2** Method: **E300**

MBLK Sample ID: **WBLKW4+-062409-R78452** Units: **mg/L** Analysis Date: **6/24/2009 06:11 PM**
Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704492** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	0.03	0.10								J
Surr: Selenate (surr)	*4.336*	0.10	*5*	0	*86.7*	*85-115*	0			

LCS Sample ID: **WLCSW4+-062409-R78452** Units: **mg/L** Analysis Date: **6/24/2009 06:34 PM**
Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704493** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	8.006	0.10	8	0	100	90-110	0			
Surr: Selenate (surr)	*4.703*	0.10	*5*	0	*94.1*	*85-115*	0			

LCSD Sample ID: **WLCSDW4+-062409-R78452** Units: **mg/L** Analysis Date: **6/24/2009 06:57 PM**
Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704494** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	8.16	0.10	8	0	102	90-110	8.006	1.91	20	
Surr: Selenate (surr)	*4.766*	0.10	*5*	0	*95.3*	*85-115*	4.703	*1.33*	*20*	

MS Sample ID: **0906543-08CMS** Units: **mg/L** Analysis Date: **6/24/2009 11:32 PM**
Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704505** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	5.494	0.10	4	1.665	95.7	80-120	0			
Surr: Selenate (surr)	*4.975*	0.10	*5*	0	*99.5*	*85-115*	0			

MS Sample ID: **0906543-09CMS** Units: **mg/L** Analysis Date: **6/25/2009 12:41 AM**
Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704508** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	5.451	0.10	4	1.616	95.9	80-120	0			
Surr: Selenate (surr)	*4.983*	0.10	*5*	0	*99.7*	*85-115*	0			

MS Sample ID: **0906513-04CMS** Units: **mg/L** Analysis Date: **6/25/2009 10:23 AM**
Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704519** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	4.123	0.10	4	0.244	97	80-120	0			
Surr: Selenate (surr)	*4.959*	0.10	*5*	0	*99.2*	*85-115*	0			

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78452** Instrument ID **ICS3K2** Method: **E300**

MSD Sample ID: **0906543-08CMSD** Units: **mg/L** Analysis Date: **6/24/2009 11:55 PM**
Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704506** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	5.481	0.10	4	1.665	95.4	80-120	5.494	0.237	20	
Surr: Selenate (surr)	*4.976*	0.10	*5*	0	*99.5*	*85-115*	4.975	*0.0201*	*20*	

MSD Sample ID: **0906543-09CMSD** Units: **mg/L** Analysis Date: **6/25/2009 01:04 AM**
Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704509** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	5.411	0.10	4	1.616	94.9	80-120	5.451	0.737	20	
Surr: Selenate (surr)	*4.988*	0.10	*5*	0	*99.8*	*85-115*	4.983	*0.1*	*20*	

MSD Sample ID: **0906513-04CMSD** Units: **mg/L** Analysis Date: **6/25/2009 10:46 AM**
Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704520** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	4.156	0.10	4	0.244	97.8	80-120	4.123	0.797	20	
Surr: Selenate (surr)	*5.02*	0.10	*5*	0	*100*	*85-115*	4.959	*1.22*	*20*	

The following samples were analyzed in this batch: 0906569-01C 0906569-02C

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78503** Instrument ID **ICS3K2** Method: **E300**

MBLK Sample ID: **WBLKW2-062509-R78503** Units: **mg/L** Analysis Date: **6/25/2009 11:55 AM**
Client ID: Run ID: **ICS3K2_090625C** SeqNo: **1705588** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Sulfate	0.307	0.50								J
Surr: Selenate (surr)	*4.92*	0.10	*5*	0	*98.4*	*85-115*	0			

LCS Sample ID: **WLCSW2-062509-R78503** Units: **mg/L** Analysis Date: **6/25/2009 12:18 PM**
Client ID: Run ID: **ICS3K2_090625C** SeqNo: **1705589** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.9	0.50	20	0	99.5	90-110	0			
Fluoride	4.086	0.10	4	0	102	90-110	0			
Sulfate	19.29	0.50	20	0	96.5	90-110	0			
Surr: Selenate (surr)	*4.623*	0.10	*5*	0	*92.5*	*85-115*	0			

MS Sample ID: **0906633-03AMS** Units: **mg/L** Analysis Date: **6/25/2009 02:58 PM**
Client ID: Run ID: **ICS3K2_090625C** SeqNo: **1705593** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	367.1	5.0	100	282.9	84.3	80-120	0			
Fluoride	20.8	1.0	20	-0.065	104	80-120	0			
Sulfate	160.4	5.0	100	66.72	93.6	80-120	0			
Surr: Selenate (surr)	*49.82*	1.0	*50*	0	*99.6*	*85-115*	0			

MS Sample ID: **0906633-03AMS** Units: **mg/L** Analysis Date: **6/25/2009 06:01 PM**
Client ID: Run ID: **ICS3K2_090625C** SeqNo: **1705597** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	273.7	0.50	10	262.3	115	80-120	0			EO
Fluoride	2.608	0.10	2	0.588	101	80-120	0			
Sulfate	74.11	0.50	10	61.6	125	80-120	0			SEO
Surr: Selenate (surr)	*5.023*	0.10	*5*	0	*100*	*85-115*	0			

MSD Sample ID: **0906633-03AMSD** Units: **mg/L** Analysis Date: **6/25/2009 03:21 PM**
Client ID: Run ID: **ICS3K2_090625C** SeqNo: **1705594** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	365.2	5.0	100	282.9	82.4	80-120	367.1	0.517	20	
Fluoride	21.21	1.0	20	-0.065	106	80-120	20.8	1.92	20	
Sulfate	159.2	5.0	100	66.72	92.4	80-120	160.4	0.749	20	
Surr: Selenate (surr)	*49.74*	1.0	*50*	0	*99.5*	*85-115*	49.82	*0.163*	*20*	

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78503** Instrument ID **ICS3K2** Method: **E300**

MSD Sample ID: **0906633-03AMSD** Units: **mg/L** Analysis Date: **6/25/2009 06:24 PM**
Client ID: Run ID: **ICS3K2_090625C** SeqNo: **1705598** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	269.9	0.50	10	262.3	75.8	80-120	273.7	1.43	20	SEO
Fluoride	2.692	0.10	2	0.588	105	80-120	2.608	3.17	20	
Sulfate	73.4	0.50	10	61.6	118	80-120	74.11	0.963	20	EO
Surr: Selenate (surr)	*4.968*	0.10	*5*	0	*99.4*	*85-115*	5.023	*1.1*	*20*	

The following samples were analyzed in this batch: 0906569-01E 0906569-02E

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78509** Instrument ID **Balance1** Method: **M2540C**

MBLK Sample ID: **BLANK-R78509** Units: **mg/L** Analysis Date: **6/25/2009 03:00 PM**
Client ID: Run ID: **BALANCE1_090625A** SeqNo: **1705675** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	ND	10								

LCS Sample ID: **LCS-R78509** Units: **mg/L** Analysis Date: **6/25/2009 03:00 PM**
Client ID: Run ID: **BALANCE1_090625A** SeqNo: **1705676** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	946	10	1000	0	94.6	85-115	0			

DUP Sample ID: **0906614-02CDUP** Units: **mg/L** Analysis Date: **6/25/2009 03:00 PM**
Client ID: Run ID: **BALANCE1_090625A** SeqNo: **1705673** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	972	10	0	0	0	0-0	1006	3.44	20	

The following samples were analyzed in this batch: 0906569-01E 0906569-02E

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78543** Instrument ID **ICS3K2** Method: **E300**

MBLK Sample ID: **WBLKW2-062609-R78543** Units: **mg/L** Analysis Date: **6/26/2009 10:27 AM**
Client ID: Run ID: **ICS3K2_090626A** SeqNo: **1706346** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Surr: Selenate (surr)	*4.642*	0.10	*5*	0	*92.8*	*85-115*	0			

LCS Sample ID: **WLCSW2-062609-R78543** Units: **mg/L** Analysis Date: **6/26/2009 10:50 AM**
Client ID: Run ID: **ICS3K2_090626A** SeqNo: **1706347** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.32	0.50	20	0	102	90-110	0			
Surr: Selenate (surr)	*4.776*	0.10	*5*	0	*95.5*	*85-115*	0			

MS Sample ID: **0906674-01DMS** Units: **mg/L** Analysis Date: **6/26/2009 01:44 PM**
Client ID: Run ID: **ICS3K2_090626A** SeqNo: **1706352** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	802.6	5.0	100	729.9	72.7	80-120	0			SEO
Surr: Selenate (surr)	*50.35*	1.0	*50*	0	*101*	*85-115*	0			

MS Sample ID: **0906678-01AMS** Units: **mg/L** Analysis Date: **6/26/2009 05:33 PM**
Client ID: Run ID: **ICS3K2_090626A** SeqNo: **1706361** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	38.16	0.50	10	28.22	99.5	80-120	0			
Surr: Selenate (surr)	*5.333*	0.10	*5*	0	*107*	*85-115*	0			

MSD Sample ID: **0906674-01DMSD** Units: **mg/L** Analysis Date: **6/26/2009 02:07 PM**
Client ID: Run ID: **ICS3K2_090626A** SeqNo: **1706353** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	800.2	5.0	100	729.9	70.3	80-120	802.6	0.299	20	SEO
Surr: Selenate (surr)	*50.51*	1.0	*50*	0	*101*	*85-115*	50.35	*0.319*	*20*	

MSD Sample ID: **0906678-01AMSD** Units: **mg/L** Analysis Date: **6/26/2009 05:56 PM**
Client ID: Run ID: **ICS3K2_090626A** SeqNo: **1706362** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	37.86	0.50	10	28.22	96.5	80-120	38.16	0.784	20	
Surr: Selenate (surr)	*5.286*	0.10	*5*	0	*106*	*85-115*	5.333	*0.885*	*20*	

The following samples were analyzed in this batch: 0906569-02E

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78629** Instrument ID **WetChem** Method: **SM2320B**

MBLK Sample ID: **WBLKW1-063009-R78629** Units: **mg/L** Analysis Date: **6/30/2009 12:00 PM**
Client ID: Run ID: **WETCHEM_090630E** SeqNo: **1708023** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	5.0								
Alkalinity, Carbonate (As CaCO3)	ND	5.0								
Alkalinity, Hydroxide (As CaCO3)	ND	5.0								
Alkalinity, Total (As CaCO3)	ND	5.0								

LCS Sample ID: **WLCSW1-063009-R78629** Units: **mg/L** Analysis Date: **6/30/2009 12:00 PM**
Client ID: Run ID: **WETCHEM_090630E** SeqNo: **1708024** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	964	5.0	1000	0	96.4	80-120	0			
Alkalinity, Total (As CaCO3)	964	5.0	1000	0	96.4	80-120	0			

DUP Sample ID: **0906569-01EDUP** Units: **mg/L** Analysis Date: **6/30/2009 12:00 PM**
Client ID: **MW #2** Run ID: **WETCHEM_090630E** SeqNo: **1708036** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	323	5.0	0	0	0	0-0	328	1.54	20	
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	323	5.0	0	0	0	0-0	328	1.54	20	

The following samples were analyzed in this batch: 0906569-01E

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78631** Instrument ID **WetChem** Method: **SM2320B**

MBLK Sample ID: **WBLKW1-063009-R78631** Units: **mg/L** Analysis Date: **6/30/2009 03:00 PM**
Client ID: Run ID: **WETCHEM_090630F** SeqNo: **1708065** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	5.0								
Alkalinity, Carbonate (As CaCO3)	ND	5.0								
Alkalinity, Hydroxide (As CaCO3)	ND	5.0								
Alkalinity, Total (As CaCO3)	ND	5.0								

LCS Sample ID: **WLCSW1-063009-R78631** Units: **mg/L** Analysis Date: **6/30/2009 03:00 PM**
Client ID: Run ID: **WETCHEM_090630F** SeqNo: **1708066** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	981	5.0	1000	0	98.1	80-120	0			
Alkalinity, Total (As CaCO3)	981	5.0	1000	0	98.1	80-120	0			

DUP Sample ID: **0906569-02EDUP** Units: **mg/L** Analysis Date: **6/30/2009 03:00 PM**
Client ID: **South Well** Run ID: **WETCHEM_090630F** SeqNo: **1708073** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	168	5.0	0	0	0	0-0	168	0	20	
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	168	5.0	0	0	0	0-0	168	0	20	

The following samples were analyzed in this batch: 0906569-02E

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

ALS Laboratory Group
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
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Chain of Custody Form

Page 1 of 1

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

ALS Project Manager: | ALS Work Order #: 0906504

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Navajo ~~Artesia~~ Refinery Semi-Annual	A	VOC (8260) Select
Work Order		Project Number	LEA	B	~~TPH (8015M) GRO, DRO, ORO~~ TOTAL MERCURY
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	SVOC (8270) LL TCL
Send Report To	Darrell Moore	Invoice Attn	Darrell Moore	D	Dissolved Metals (6020/7000) Select
Address	P.O. Box 159	Address	P.O. Box 159	E	Anions (300) Cl, F, SO4, NO3, NO2
				F	Alkalinity
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	pH/Specific Conductivity
Phone	(505) 748-3311	Phone	(505) 748-3311	H	TDS
Fax	(505) 746-5421	Fax	(505) 746-5421	I	Nitrate/Nitrite (300)
e-Mail Address	dgboyer@SESI-NM.com	e-Mail Address		J	Cations

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW #2	06-22-09	0845	H2O	1,2,3,8	9	X	X	X	X	X	X	X	X	X	X	
2	SOUTH WELL	06-22-09	0920	H2O	1,2,3,8	9	X	X	X	X	X	X	X	X	X	X	
3	MW #1	06-22-09	1045	H2O	8	2			X								
4	TRIP BLANK	06-22-09	1130	H2O	1,8	2	X										
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: [signature] | Shipment Method: FED X

Required Turnaround Time: (Check Box) ☑ Std 10 WK Days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour ☐ Other

Results Due Date:

Relinquished by: [signature]	Date: 06-22-09	Time: 1130	Received by:	Notes: 10 Work Days TAT.	
Relinquished by:	Date:	Time:	Received by (Laboratory): [signature] 6/23/09 9:10	Cooler ID	Cooler Temp
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):		

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

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 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.

ALS Laboratory Group

Sample Receipt Checklist

Client Name: **NAVAJO REFINING** Date/Time Received: **23-Jun-09 09:10**

Work Order: **0906569** Received by: **RNG**

Checklist completed by Robert D. Harris (eSignature) 23-Jun-09 (Date) Reviewed by: Jay Lynn F Thibault (eSignature) 24-Jun-09 (Date)

Matrices: waters
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):	2.2c	002	
Cooler(s)/Kit(s):	1816		
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: