GW - 028

ANNUAL REPORT

2011

ARCADIS

Infrastructure · Water · Environment · Buildings

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ENVIRONMENT

Mr. David Cobrain
New Mexico Environmental Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505

Mr. Carl Chavez
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Date:
February 20, 2012

Contact:
Pam Krueger

Phone:
713.953.4816

Email:
pam.krueger@arcadis-us.com

Our ref:
TX000836.0005

Subject:
Request for Extension for the 2011 Annual Groundwater Monitoring Report
Navajo Refining Company, Artesia Refinery
RCRA Permit No. NMD048918817
Discharge Permit GW-028

Dear Mr. Cobrain and Mr. Chavez:

On behalf of the Navajo Refining Company (Navajo), ARCADIS U.S. Inc. (ARCADIS) respectfully requests an extension to the required submittal deadline of February 28, 2012 for the 2011 Annual Groundwater Monitoring Report. This report is required by both the RCRA Permit and the Discharge Permit and is to be submitted by February 28 of each year. The reason for this extension request is that the New Mexico Environment Department (NMED) published a new risk assessment guidance document on February 14, 2012. Included with that guidance document are updated screening levels for several of the constituents of concern for the Artesia Refinery. Therefore, ARCADIS requests an additional 30 days to incorporate the updated screening levels into the annual report.

Sincerely,

ARCADIS U.S., Inc.

Pamela R. Krueger
Senior Project Manager

Copies:
Mr. Johnny Lackey, Navajo Refining Company

NEW MEXICO
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

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Governor

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Lieutenant Governor

DAVE MARTIN
Secretary

BUTCH TONGATE
Acting Deputy Secretary

Certified Mail - Return Receipt Requested

August 12, 2011

Darrell Moore
Navajo Refining Company
P.O. Box 159
Artesia, New Mexico 88211-0159

RE: APPROVAL WITH MODIFICATIONS
2010 ANNUAL GROUNDWATER REPORT
NAVAJO REFINING COMPANY, ARTESIA REFINERY
EPA ID #: NMD048918817
HWB-NRC-11-002

Dear Mr. Moore:

The New Mexico Environment Department (NMED) has received Navajo Refining Company's Artesia Refinery (Permittee) submittal of the *2010 Annual Groundwater Report* (Report), dated February 2011. NMED hereby approves the Report with the following modifications.

1. **NMED Comment:** Page 1 and the first paragraph of page 2 of the Executive Summary is the same as the Introduction on pages 4-5 with the exception of paragraph 2 on page 4 which was not included in the Executive Summary. The Permittee must revise future Reports to eliminate repetitive text. No revision is necessary.

2. **Section 2.6 (Exceptions to Groundwater Monitoring Work Plan), page 11, bullets 2 and 3:**

Permittees Statement: Bullet 3: "MW-63 was not sampled because the well was plugged due to Refinery expansion activities." Bullet 4: "MW-100 was not sampled because the well was plugged due to Refinery expansion activities."

NMED Comment: Explain the meaning of plugged (e.g., the well was abandoned, plugged, and no longer usable or not accessible during the sampling event) in the response letter. The method of well abandonment must be described in the response letter and the Permittee must state whether the well was abandoned in accordance with 19.27.4 NMAC. The term "plugged" must be clarified if used in future documents.

3. Section 5.3.3.2 (DRO), page 27:

Permittees Statement: "[t]he analytical results from these samples are included in Table 4 and show that DRO was detected above the CGWSL in 3 of the 11 samples collected from wells completed in the valley fill aquifer."

NMED Comment: The above statement refers to the valley fill aquifer. The Permittee provides a discussion of the valley fill aquifer and the shallow aquifer in the *Evaporation Ponds Phase III Corrective Action Investigation Report*, dated April 2011. NMED does not agree with the assertion that there are two aquifers and views the unconfined water table aquifer as one aquifer with varying permeability. The Permittee must revise the use of the terms valley fill aquifer and the shallow aquifer in future documents. See NMED's June 30, 2011 Approval with Modifications to the *Evaporation Ponds Phase III Corrective Action Investigation Report* comments pertaining to the valley fill and shallow aquifers. No revision is necessary; the changes must be applied to future documents.

4. Tables 1 (Well Information and Gauging Data):

NMED Comment: The first column of the table is titled "Aquifer" and then identifies monitoring wells in the shallow and valley fill aquifer. This column must be revised to identify the depth of the screened intervals relative to the water table. See Comment 5 above and comments to NMED's June 30, 2011 Approval with Modifications to the *Evaporation Ponds Phase III Corrective Action Investigation Report*. No revision is necessary; the changes must be applied to future documents.

5. Table 2 (Well Purging and Water Quality Measurement Data):

NMED Comment: Groundwater samples obtained from wells MW-23 and MW-49 were reported to contain dissolved oxygen (DO) concentrations of 11 mg/kg and 11.42 mg/kg measured on October 28, 2010, respectively. These DO values exceed saturated conditions at sea level. These values must be revised. A pH value of 689 std units measured on October 12, 2010 was reported for well OCD-4. This appears to be a typographical error. No revisions are necessary; the changes must be made to future reports.

6. Figures:

NMED Comment: Figures 3 and 5 reference the shallow aquifer and Figures 4 and 6 reference the valley fill aquifer. The terms shallow and valley fill aquifer must be changed in future documents. See Comments 3 and 4 above. No revision is necessary.

The Permittee must submit a response letter addressing Comment 2. The response letter must be submitted to NMED on or before **October 7, 2011**.

If you have any questions regarding this letter please contact Leona Tsinnajinnie of my staff at (505) 476-6057.

Sincerely,

John E. Kieling
Acting Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
L. Tsinnajinnie, NMED HWB
C. Chavez, OCD
J. Lackey, NRC
P. Krueger, ARCADIS

File: Reading and NRC 2011
HWB-NRC-11-002

REFINING COMPANY, LLC

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April 15, 2011

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

RE: 2011 ANNUAL DISCHARGE PERMIT REPORT
NAVAJO REFINING COMPANY
ARTESIA, NM GW-028

Dear Carl

Enclosed, please find the above referenced report. If you have any questions concerning this submission, please contact me at 575-746-5281 or at Darrell.moore@hollycorp.com.

Sincerely,
NAVAJO REFINIG COMPANY, LLC

Darrell Moore

Darrell Moore
Environmental Manager for Water and Waste

Encl:

2010 ANNUAL REPORT
NAVAJO REFINING COMPANY
DISCHARGE PERMIT GW-028

EXECUTIVE SUMMARY

This report is being written as a requirement of Navajo Refining Company's Discharge Permit GW-028 which states that an Annual Report will be written by April 15 of each year and will include at a minimum:

A. A summary of all major refinery activities or events
B. Results of all sampling or monitoring events.
C. Summary of the sump and underground waste water lines tested.
D. Summary of all leaks, spills, and releases and corrective action taken.
E. Summary of discovery of new groundwater contamination.
F. Summary and copy of all EPA/NMED RCRA Activity.

A site location map is included as **Figure 1.**

2010 was not as active a year as 2009 was at the refinery. There were no new units built, however, there were several construction projects that took place in 2010 or were begun in 2010. In April, 2010, a new fire water pond was started. This pond was built in the northeast portion of the refinery. Although it wont be operational until the end of 2011, we started preliminary tasks that will result in an upgraded recovery system. This will entail new pumps, new pipelines, and automation to make our recovery operations much more efficient. We also built a new roll-off pad in the same general area as the new fire water pond. Lastly, we started construction of the new effluent line in the last days of 2010.

We also performed the two semi-annual sampling events that include over 100 monitor wells stretching from the refinery east to the former evaporation ponds. Those results are included in the **"2010 Annual Groundwater Report"** that is sent to OCD under separate cover. However, highlights and results in the form of a spreadsheet will be included in this report.

Navajo has numerous sumps and underground lines that we test regularly for integrity. Annually, we test 20% of these sumps and lines. By doing this, we insure that each sump or line is tested every 5 years. A spreadsheet and analysis is included later in this report that summarizes those test results and any repairs that were necessary.

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G:\ENVCAD\HOUSTON\ACTIVITY\001043\0001\00001\DWG\01043B02.DWG LAYOUT: 1 SAVED: 2/15/2011 3:53 PM ACADVER: 17.0S (LMS TECH) PAGESETUP: — PLOTSTYLETABLE: AGANDM.CTB PLOTTED: — BY: INNISS, HAYDEN
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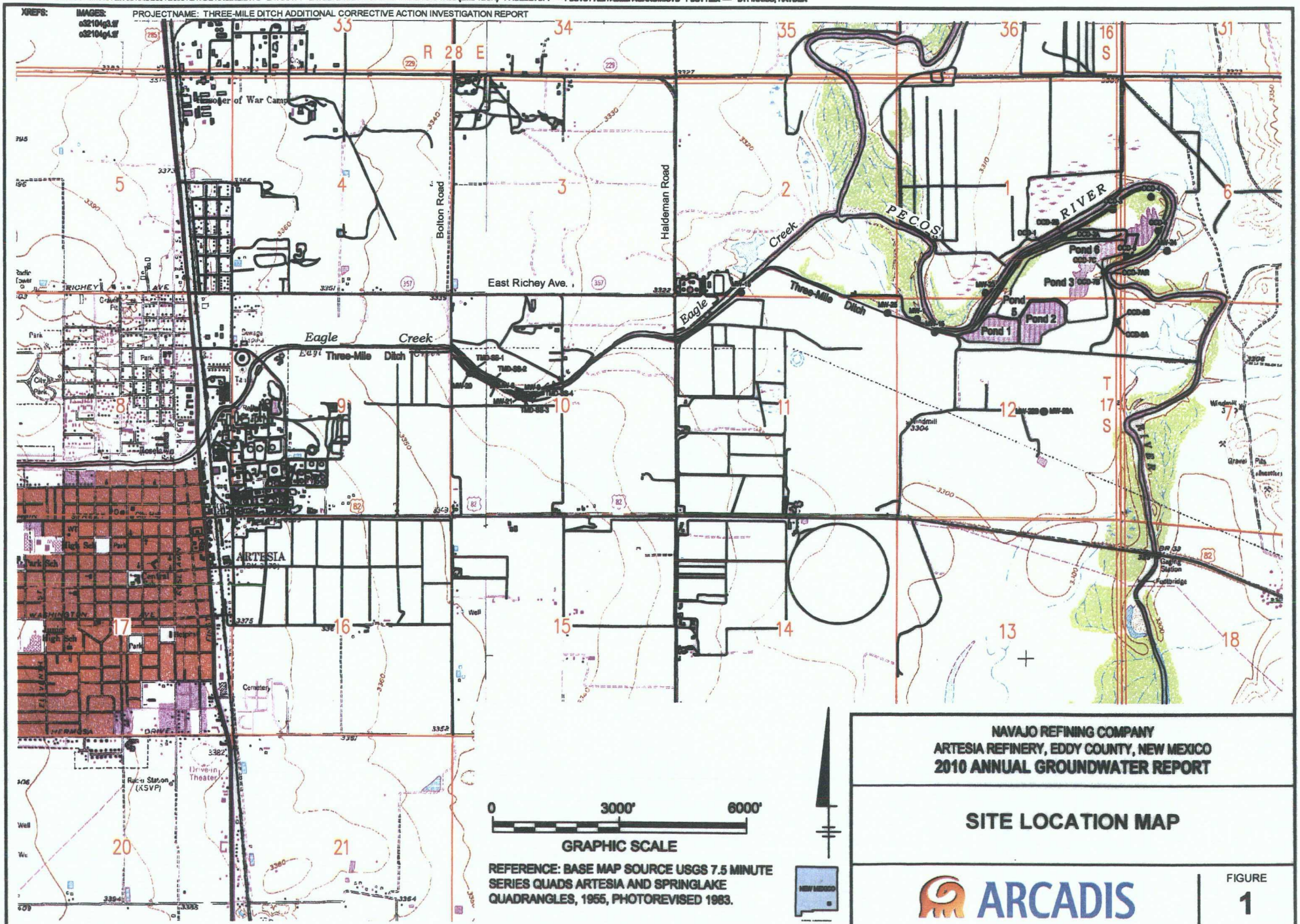

NAVAJO REFINING COMPANY
ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO
2010 ANNUAL GROUNDWATER REPORT

SITE LOCATION MAP

ARCADIS

FIGURE
1

Over the course of 2010, Navajo experienced several spills and fires that required reporting. Navajo's policy on spills is to remove contaminated soil and dispose. Reportable spills, releases, and fires numbered 41. There were 17 reportable spills ranging from leaks on the effluent pipeline to hydrocarbon spills and 24 fires. We had six (6) leaks on the effluent pipeline and are in the process of laying a new fiberglas effluent line to alleviate this problem.

During the year, we discovered one new leak on an underground pipeline that carries JP-8 (jet fuel). This leak was discovered when we noticed several feet of product in a previously clean monitor well (MW-94). Although we have previously had contamination in this area and have installed recovery trenches, this new leak did reach groundwater. We have installed a pump into MW-94 and are pumping this product out.

MAJOR REFINERY ACTIVITIES

2010 was not as active a year as 2009 was at the refinery. We did not build any new units or tanks. There were however, several construction projects that took place in 2010 or were begun in 2010. In April, 2010, a new fire water pond was started. This pond was built in the northeast portion of the refinery. Drawings were sent to OCD in April 2010 and approved for this construction. This new pond will provide greater fire water capacity to cover the safety needs of the new units that were built in 2009.

Although it wont be operational until the end of 2011, we started preliminary tasks that will result in an upgraded recovery system. Our current recovery system was last upgraded in 1992 and has become outdated. The new system will add new pumps in our recovery trenches, new lines to bring the recovered product back into the plant and introduce it into the refinery slop oil system for reuse, several new recovery wells to recover product in areas that are currently neglected, and automation of the entire system. This will make our remediation efforts much more efficient and productive.

We built a new hazardous waste roll-off pad in the northeastern portion of the refinery. This pad is used to store hazardous waste roll-off bins and gives us a single area with containment for these bins. The pad is built with a drive over berm on the east end to allow trucks to access the pad.

Finally, we started construction of the new effluent line in the last days of 2010. The new line is a fiberglas line that should hold up better in the corrosive service of transporting our waste water. As OCD is aware, during 2010 we had several small leaks on the old steel effluent line. These leaks were the driving force in installing the new line. The new line will be operational by May, 2011.

RESULTS OF SAMPLING AND MONITORING EVENTS

An updated Facility Wide Groundwater Monitoring Work Plan (FWGMWP) was submitted to NMED and OCD on January 15, 2010. As discussed in a meeting with

NMED and OCD, Navajo implemented the updated monitoring plan during the first semiannual monitoring event conducted in March and April 2010. On August 23, 2010, NMED issued a Notice of Disapproval of the FWGMWP with specific comments requiring changes to the FWGMWP. A conference call was conducted with NMED, OCD, Navajo and ARCADIS on September 15, 2010 to discuss the comments and required changes to the FWGMWP. The FWGMWP was revised based on the NOD and subsequent discussions, and was submitted along with a response to the NOD letter on October 28, 2010. The provisions of the revised FWGMWP were implemented during the second semiannual monitoring event conducted in September and October 2010.

Activities during 2010 included installing two replacement groundwater wells, collection of field data, collection of groundwater samples for analysis, and remediation monitoring. Well information and gauging data are shown in Table 1. Well purging and water quality measurement data are shown in Table 2. Groundwater screening levels and selected critical groundwater screening levels are shown in Table 3. Finally, Summary of groundwater analytical data are shown in Table 4. We have also included the RO Reject analytical data in Table 5. There are no new surprises in this stream as it has stayed consistent for well over 10 years.

MW-46R was installed to replace MW-46, which had been damaged near the surface. KWB-10R was installed to replace KWB-10, which had a broken surface casing. The damage to both prevented collection of groundwater samples during the first semiannual sampling event, although it was possible to measure the depth to groundwater in both of these wells.

Some exceptions to the planned groundwater monitoring occurred, as follows:

- **First Semiannual Sampling Event (March to April 2010):**
  - KWB-8 was not gauged or sampled because a pump was present in the well.
  - KWB-10 was gauged but could not be sampled because of casing damage that prevented the placement of a pump or tubing in the well. The damaged state of the well was communicated to Navajo and the well was replaced prior to the second semiannual sampling event.
  - KWB-12A could not be sampled because the well was dry.
  - KWB-P2 was not sampled due to low water volume in the casing. This well is actually a piezometer and had only 4 feet of water present when gauged. The well purges completely dry using either low-flow or submersible pumps.
  - MW-46 was gauged but could not be sampled because of casing damage that prevented the placement of a pump or tubing in the well. The damaged state

Table 1 - Well Information and Gauging Data
2010 Groundwater Report
Navajo Refinery, Artesia, New Mexico

Aquifer	Well ID	Northing	Easting	TOC Elevation (ft amsl)	Screen Interval (ft bgs)	Date Measured	Depth to PSH (ft btoc)	Depth to Water (ft btoc)	Water Elevation (ft amsl)	PSH Thickness (ft)
Shallow	KWB-1A	672969.12	526181.36	3353.46	18 to 32	3/26/2010	NP	13.25	3340.21	--
Shallow	KWB-1A	672969.12	526181.36	3353.46	18 to 32	9/22/2010	NP	14.42	3339.04	--
Shallow	KWB-1B	672968.90	526191.02	3352.83	18 to 32	3/26/2010	NP	14.54	3338.29	--
Shallow	KWB-1B	672968.90	526191.02	3352.83	18 to 32	9/22/2010	NP	15.56	3337.27	--
Valley Fill	KWB-1C	672968.22	526202.95	3351.38	30.5 to 49.5	3/26/2010	NP	15.15	3336.23	--
Valley Fill	KWB-1C	672968.22	526202.95	3351.38	30.5 to 49.5	9/22/2010	NP	16.18	3335.20	--
Shallow	KWB-2R	670207.24	524897.59	3364.32	unknown	3/26/2010	NP	22.94	3341.38	--
Shallow	KWB-2R	670207.24	524897.59	3364.32	unknown	9/22/2010	NP	18.80	3345.52	--
Shallow	KWB-3AR	669972.87	528901.80	3347.08	unknown	3/25/2010	NP	24.95	3322.13	--
Shallow	KWB-3AR	669972.87	528901.80	3347.08	unknown	10/5/2010	NP	16.77	3330.31	--
Shallow	KWB-4	670616.38	524572.44	3370.25	20 to 39	4/1/2010	23.95	25.78	3345.93	1.83
Shallow	KWB-4	670616.38	524572.44	3370.25	20 to 39	9/22/2010	22.38	23.95	3347.56	1.57
Shallow	KWB-5	670729.55	525244.51	3364.72	24.7 to 38.7	3/26/2010	23.75	24.15	3340.89	0.40
Shallow	KWB-5	670729.55	525244.51	3364.72	24.7 to 38.7	9/22/2010	21.17	21.62	3343.46	0.45
Shallow	KWB-6	670449.36	526158.70	3360.30	17.5 to 36.5	3/26/2010	22.37	24.95	3337.41	2.58
Shallow	KWB-6	670449.36	526158.70	3360.30	17.5 to 36.5	9/22/2010	18.41	18.44	3341.88	0.03
Shallow	KWB-7	671266.72	529055.47	3346.16	18 to 32	3/24/2010	NP	23.41	3322.75	--
Shallow	KWB-7	671266.72	529055.47	3346.16	18 to 32	10/5/2010	NP	17.82	3328.34	--
Shallow	KWB-8	671000.57	527874.87	3350.41	unknown	*Pump in well - not measured*				
Shallow	KWB-8	671000.57	527874.87	3350.41	unknown	11/3/2010	18.22	18.57	3332.12	0.35
Shallow	KWB-9	669628.19	527592.61	3354.53	20 to 34	3/24/2010	NP	28.54	3325.99	--
Shallow	KWB-9	669628.19	527592.61	3354.53	20 to 34	9/22/2010	NP	19.25	3335.28	--
Shallow	KWB-10	671756.34	526206.06	3350.97	unknown	3/26/2010	NP	17.68	3333.29	--
Shallow	KWB-10R	671756.34	526206.06	3350.97	unknown	9/22/2010	NP	16.40	3334.57	--
Shallow	KWB-11A	670643.67	529043.46	3348.72	30 to 39.5	3/24/2010	NP	24.87	3323.85	--
Shallow	KWB-11A	670643.67	529043.46	3348.72	30 to 39.5	10/5/2010	NP	18.06	3330.66	--
Valley Fill	KWB-11B	670653.84	529044.06	3348.03	50 to 69.5	3/24/2010	NP	25.80	3322.23	--
Valley Fill	KWB-11B	670653.84	529044.06	3348.03	50 to 69.5	10/5/2010	NP	18.78	3329.25	--
Shallow	KWB-12A	669074.44	527590.88	3351.81	15.5 to 24.5	9/22/2010	NP	Dry	#VALUE!	--
Shallow	KWB-12A	669074.44	527590.88	3351.81	15.5 to 24.5	9/22/2010	NP	17.09	3334.72	--
Valley Fill	KWB-12B	669064.18	527590.12	3351.63	25.5 to 39.5	3/24/2010	NP	26.57	3325.06	--
Valley Fill	KWB-12B	669064.18	527590.12	3351.63	25.5 to 39.5	9/22/2010	NP	16.93	3334.70	--
Shallow	KWB-13	669077.00	524892.42	3365.67	unknown	3/25/2010	NP	26.73	3338.94	--
Shallow	KWB-13	669077.00	524892.42	3365.67	unknown	9/21/2010	NP	20.87	3344.80	--

Table 1 - Well Information and Gauging Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

Aquifer	Well ID	Northing	Easting	TOC Elevation (ft amsl)	Screen Interval (ft bgs)	Date Measured	Depth to PSH (ft btoc)	Depth to Water (ft btoc)	Water Elevation (ft amsl)	PSH Thickness (ft)
Shallow	KWB-P2	671184.46	530219.31	3338.97	unknown	3/25/2010	NP	28.80	3310.17	--
Shallow	KWB-P2	671184.46	530219.31	3338.97	unknown	10/5/2010	NP	28.98	3309.99	--
Shallow	KWB-P3	669704.98	538134.01	3308.50	unknown	10/6/2010	NP	9.13	3299.37	--
Shallow	KWB-P4	670970.10	537416.92	3305.39	unknown	10/6/2010	NP	5.50	3299.89	--
Shallow	MW-1R	675135.17	538636.78	3313.28	unknown	3/24/2010	NP	10.17	3303.11	--
Shallow	MW-1R	675135.17	538636.78	3313.28	unknown	10/6/2010	NP	9.13	3304.15	--
Shallow	MW-2A	675979.09	540803.91	3312.97	unknown	3/25/2010	NP	9.92	3303.05	--
Shallow	MW-2A	675979.09	540803.91	3312.97	unknown	10/6/2010	NP	9.05	3303.92	--
Valley Fill	MW-2B	675969.73	540801.44	3312.49	unknown	3/25/2010	NP	10.15	3302.34	--
Valley Fill	MW-2B	675969.73	540801.44	3312.49	unknown	10/6/2010	NP	10.02	3302.47	--
Shallow	MW-3	674443.34	540503.24	3310.32	unknown	3/25/2010	NP	8.58	3301.74	--
Shallow	MW-3	674443.34	540503.24	3310.32	unknown	10/6/2010	NP	8.54	3301.78	--
Shallow	MW-4A	674083.00	540529.44	3312.71	unknown	3/24/2010	NP	11.12	3301.59	--
Shallow	MW-4A	674083.00	540529.44	3312.71	unknown	10/5/2010	NP	11.08	3301.63	--
Valley Fill	MW-4B	674089.71	540541.34	3312.01	unknown	3/24/2010	NP	10.36	3301.65	--
Valley Fill	MW-4B	674089.71	540541.34	3312.01	unknown	10/5/2010	NP	10.32	3301.69	--
Shallow	MW-5A	674272.84	541759.78	3308.62	unknown	3/24/2010	NP	7.75	3300.87	--
Shallow	MW-5A	674272.84	541759.78	3308.62	unknown	10/5/2010	NP	8.40	3300.22	--
Valley Fill	MW-5B	674272.33	541739.12	3308.95	41.5 to 50.5	3/24/2010	NP	7.88	3301.07	--
Valley Fill	MW-5B	674272.33	541739.12	3308.95	41.5 to 50.5	10/5/2010	NP	7.93	3301.02	--
Valley Fill	MW-5C	674279.57	541728.80	3309.28	59.25 to 68.75	3/24/2010	NP	8.04	3301.24	--
Valley Fill	MW-5C	674279.57	541728.80	3309.28	59.25 to 68.75	10/5/2010	NP	8.08	3301.20	--
Shallow	MW-6A	674427.07	539833.47	3313.46	unknown	3/25/2010	NP	11.76	3301.70	--
Shallow	MW-6A	674427.07	539833.47	3313.46	unknown	10/6/2010	NP	11.69	3301.77	--
Valley Fill	MW-6B	674418.57	539834.04	3313.35	unknown	3/25/2010	NP	11.61	3301.74	--
Valley Fill	MW-6B	674418.57	539834.04	3313.35	unknown	10/6/2010	NP	11.43	3301.92	--
Shallow	MW-7A	674447.64	542716.01	3309.24	unknown	3/24/2010	NP	6.97	3302.27	--
Shallow	MW-7A	674447.64	542716.01	3309.24	unknown	10/5/2010	NP	7.05	3302.19	--
Valley Fill	MW-7B	674455.63	542715.61	3307.87	unknown	3/24/2010	NP	8.27	3299.60	--
Valley Fill	MW-7B	674455.63	542715.61	3307.87	unknown	10/5/2010	NP	8.33	3299.54	--
Shallow	MW-8	673215.93	529055.18	3336.42	unknown	3/25/2010	NP	10.03	3326.39	--
Shallow	MW-8	673215.93	529055.18	3336.42	unknown	10/5/2010	NP	10.41	3326.01	--
Shallow	MW-9	673169.56	529232.03	3336.20	unknown	3/25/2010	NP	10.71	3325.49	--
Shallow	MW-9	673169.56	529232.03	3336.20	unknown	10/5/2010	NP	11.12	3325.08	--

Table 1 - Well Information and Gauging Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

Aquifer	Well ID	Northing	Easting	TOC Elevation (ft amsl)	Screen Interval (ft bgs)	Date Measured	Depth to PSH (ft btoc)	Depth to Water (ft btoc)	Water Elevation (ft amsl)	PSH Thickness (ft)
Shallow	MW-10	672121.15	541540.05	3304.76	unknown	3/25/2010	NP	4.60	3300.16	--
Shallow	MW-10	672121.15	541540.05	3304.76	unknown	10/5/2010	NP	5.43	3299.33	--
Shallow	MW-11A	677317.73	543675.36	3310.76	unknown	3/25/2010	NP	8.83	3301.93	--
Shallow	MW-11A	677317.73	543675.36	3310.76	unknown	10/6/2010	NP	8.35	3302.41	--
Valley Fill	MW-11B	677305.72	543685.50	3310.76	unknown	3/25/2010	NP	8.78	3301.98	--
Valley Fill	MW-11B	677305.72	543685.50	3310.76	unknown	10/6/2010	NP	8.26	3302.50	--
Shallow	MW-12	676952.63	541505.50	3312.73	unknown	3/25/2010	NP	8.57	3304.16	--
Shallow	MW-12	676952.63	541505.50	3312.73	unknown	10/20/2010	NP	9.96	3302.77	--
Shallow	MW-13	674951.80	539762.62	3314.24	unknown	3/25/2010	NP	11.66	3302.58	--
Shallow	MW-13	674951.80	539762.62	3314.24	unknown	10/20/2010	NP	11.95	3302.29	--
Shallow	MW-14	676122.48	543280.49	3311.84	unknown	3/25/2010	NP	10.76	3301.08	--
Shallow	MW-14	676122.48	543280.49	3311.84	unknown	10/15/2010	NP	8.07	3303.77	--
Shallow	MW-15	674731.39	539003.75	3313.72	unknown	3/26/2010	NP	11.16	3302.56	--
Shallow	MW-15	674731.39	539003.75	3313.72	unknown	10/6/2010	NP	10.52	3303.20	--
Shallow	MW-16	675613.35	534389.17	3316.12	unknown	3/26/2010	NP	7.58	3308.54	--
Shallow	MW-16	675613.35	534389.17	3316.12	unknown	10/6/2010	NP	7.33	3308.79	--
Shallow	MW-17	678064.09	535480.70	3322.01	unknown	10/6/2010	NP	18.98	3303.03	--
Shallow	MW-18	674172.45	522318.86	3365.42	15 to 19	3/24/2010	NP	10.58	3354.84	--
Shallow	MW-18	674172.45	522318.86	3365.42	15 to 19	9/21/2010	NP	11.47	3353.95	--
Shallow	MW-18A	672548.16	543447.78	3308.58	unknown	3/26/2010	NP	9.48	3299.10	--
Shallow	MW-18A	672548.16	543447.78	3308.58	unknown	10/5/2010	NP	8.74	3299.84	--
Valley Fill	MW-18B	672557.96	543458.22	3308.74	unknown	3/26/2010	NP	9.43	3299.31	--
Valley Fill	MW-18B	672557.96	543458.22	3308.74	unknown	10/5/2010	NP	8.55	3300.19	--
Valley Fill	MW-18T	672559.79	543449.75	3308.55	unknown	3/26/2010	NP	9.78	3298.77	--
Valley Fill	MW-18T	672559.79	543449.75	3308.55	unknown	10/5/2010	NP	8.42	3300.13	--
Shallow	MW-19	673597.29	521670.75	3368.00	unknown	3/24/2010	NP	11.91	3356.09	--
Shallow	MW-19	673597.29	521670.75	3368.00	unknown	9/21/2010	NP	12.00	3356.00	--
Shallow	MW-20	673800.56	527834.67	3340.91	9.5 to 23.5	3/26/2010	NP	9.17	3331.74	--
Shallow	MW-20	673800.56	527834.67	3340.91	9.5 to 23.5	10/5/2010	NP	11.71	3329.20	--
Shallow	MW-21	673180.38	529150.62	3337.31	7.5 to 22	3/26/2010	NP	11.47	3325.84	--
Shallow	MW-21	673180.38	529150.62	3337.31	7.5 to 22	10/5/2010	NP	11.87	3325.44	--
Shallow	MW-22A	672866.82	541801.63	3307.62	unknown	3/25/2010	NP	7.09	3300.53	--
Shallow	MW-22A	672866.82	541801.63	3307.62	unknown	10/5/2010	NP	7.68	3299.94	--

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Valley Fill	MW-22B	672866.58	541786.97	3307.63	unknown	3/25/2010	NP	6.88	3300.75	--
Valley Fill	MW-22B	672866.58	541786.97	3307.63	unknown	10/5/2010	NP	7.43	3300.20	--
Shallow	MW-23	672851.25	522821.05	3368.38	15 to 20	3/25/2010	NP	12.82	3355.56	--
Shallow	MW-23	672851.25	522821.05	3368.38	15 to 20	9/21/2010	NP	13.72	3354.66	--
Shallow	MW-24	676498.23	544101.56	3312.85	15 to 20	3/25/2010	NP	11.39	3301.46	--
Shallow	MW-24	676498.23	544101.56	3312.85	15 to 20	10/5/2010	NP	9.34	3303.51	--
Shallow	MW-25	675386.30	537955.86	3312.29	15.75 to 25.25	3/24/2010	NP	12.29	3300.00	--
Shallow	MW-25	675386.30	537955.86	3312.29	15.75 to 25.25	10/6/2010	NP	13.51	3298.78	--
Shallow	MW-26	676229.18	535348.61	3314.87	15.75 to 25.25	3/25/2010	NP	8.82	3306.05	--
Shallow	MW-26	676229.18	535348.61	3314.87	15.75 to 25.25	10/6/2010	NP	5.97	3308.90	--
Shallow	MW-27	674495.64	532942.65	3320.85	18.25 to 27.75	3/25/2010	NP	16.56	3304.29	--
Shallow	MW-27	674495.64	532942.65	3320.85	18.25 to 27.75	10/6/2010	NP	14.35	3306.50	--
Shallow	MW-28	671508.38	524521.56	3370.27	25 to 30	3/25/2010	NP	23.35	3346.92	--
Shallow	MW-28	671508.38	524521.56	3370.27	25 to 30	9/22/2010	NP	21.99	3348.28	--
Shallow	MW-29	673481.15	523544.65	3360.64	9.75 to 19.25	3/24/2010	NP	10.98	3349.66	--
Shallow	MW-29	673481.15	523544.65	3360.64	9.75 to 19.25	9/21/2010	NP	12.67	3347.97	--
Shallow	MW-30	674125.92	523548.75	3354.33	unknown	3/24/2010	NP	7.53	3346.80	--
Shallow	MW-30	674125.92	523548.75	3354.33	unknown	9/21/2010	NP	7.81	3346.52	--
Shallow	MW-39	673039.50	523422.93	3358.79	14 to 24	3/25/2010	8.34	8.35	3350.45	0.01
Shallow	MW-39	673039.50	523422.93	3358.79	14 to 24	9/21/2010	10.24	10.26	3348.55	0.02
Shallow	MW-40	673161.12	523489.02	3356.93	unknown	3/24/2010	NP	8.59	3348.34	--
Shallow	MW-40	673161.12	523489.02	3356.93	unknown	9/21/2010	NP	8.62	3348.31	--
Shallow	MW-41	673379.87	523374.64	3356.58	14 to 19	3/24/2010	NP	7.54	3349.04	--
Shallow	MW-41	673379.87	523374.64	3356.58	14 to 19	9/21/2010	NP	9.15	3347.43	--
Shallow	MW-42	673480.27	523263.53	3358.59	unknown	3/24/2010	NP	8.55	3350.04	--
Shallow	MW-42	673480.27	523263.53	3358.59	unknown	9/21/2010	NP	9.99	3348.60	--
Shallow	MW-43	673115.86	522950.40	3365.49	15.5 to 20.5	3/26/2010	NP	10.31	3355.18	--
Shallow	MW-43	673115.86	522950.40	3365.49	15.5 to 20.5	9/21/2010	NP	11.38	3354.11	--
Shallow	MW-45	674247.07	523663.75	3351.51	10.5 to 15.5	3/24/2010	NP	5.28	3346.23	--
Shallow	MW-45	674247.07	523663.75	3351.51	10.5 to 15.5	9/22/2010	NP	5.45	3346.06	--
Shallow	MW-46	674223.03	524920.28	3350.11	unknown	3/24/2010	NP	8.51	3341.60	--
Shallow	MW-46R	674223.03	524920.28	3350.11	unknown	9/22/2010	NP	9.63	3340.48	--
Shallow	MW-48	670689.39	524080.35	3362.97	unknown	3/26/2010	18.99	19.12	3343.95	0.13
Shallow	MW-48	670689.39	524080.35	3362.97	unknown	9/22/2010	17.55	17.59	3345.41	0.04

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Shallow	MW-49	672051.80	523610.79	3359.77	unknown	3/24/2010	NP	10.68	3349.09	--
Shallow	MW-49	672051.80	523610.79	3359.77	unknown	9/22/2010	NP	11.04	3348.73	--
Shallow	MW-50	671502.45	521857.84	3371.05	unknown	3/25/2010	NP	16.87	3354.18	--
Shallow	MW-50	671502.45	521857.84	3371.05	unknown	9/21/2010	NP	17.00	3354.05	--
Shallow	MW-52	670165.24	523370.99	3368.30	unknown	3/24/2010	NP	25.10	3343.20	--
Shallow	MW-52	670165.24	523370.99	3368.30	unknown	9/21/2010	NP	18.34	3349.96	--
Shallow	MW-53	673626.07	521459.12	3368.73	unknown	3/24/2010	NP	12.68	3356.05	--
Shallow	MW-53	673626.07	521459.12	3368.73	unknown	9/21/2010	NP	11.74	3356.99	--
Shallow	MW-54A	674138.65	522110.51	3366.49	unknown	3/24/2010	NP	11.64	3354.85	--
Shallow	MW-54A	674138.65	522110.51	3366.49	unknown	9/21/2010	NP	12.30	3354.19	--
Valley Fill	MW-54B	674148.44	522118.80	3366.47	unknown	3/24/2010	NP	11.65	3354.82	--
Valley Fill	MW-54B	674148.44	522118.80	3366.47	unknown	9/21/2010	NP	12.39	3354.08	--
Shallow	MW-55	674091.95	522766.46	3364.77	unknown	3/24/2010	NP	9.80	3354.97	--
Shallow	MW-55	674091.95	522766.46	3364.77	unknown	9/21/2010	NP	9.90	3354.87	--
Shallow	MW-56	674160.38	523450.14	3357.44	unknown	3/24/2010	NP	10.53	3346.91	--
Shallow	MW-56	674160.38	523450.14	3357.44	unknown	9/21/2010	NP	10.75	3346.69	--
Shallow	MW-57	669935.59	527579.02	3350.91	unknown	3/26/2010	NP	0.00	3350.91	--
Shallow	MW-57	669935.59	527579.02	3350.91	unknown	11/3/2010	NP	17.38	3333.53	--
Shallow	MW-58	670207.27	525197.99	3362.22	unknown	3/24/2010	NP	21.99	3340.23	--
Shallow	MW-58	670207.27	525197.99	3362.22	unknown	9/22/2010	NP	17.37	3344.85	--
Shallow	MW-59	672815.74	523854.62	3354.78	unknown	3/24/2010	NP	6.12	3348.66	--
Shallow	MW-59	672815.74	523854.62	3354.78	unknown	9/22/2010	NP	8.00	3346.78	--
Shallow	MW-60	672850.69	524144.40	3354.33	unknown	3/24/2010	NP	7.45	3346.88	--
Shallow	MW-60	672850.69	524144.40	3354.33	unknown	9/22/2010	NP	9.13	3345.20	--
Shallow	MW-61	672441.15	522574.92	3369.47	14 to 29	3/26/2010	NP	12.18	3357.29	--
Shallow	MW-61	672441.15	522574.92	3369.47	14 to 29	9/22/2010	NP	12.95	3356.52	--
Shallow	MW-62	672648.15	522702.48	3371.29	14 to 29	3/25/2010	NP	15.41	3355.88	--
Shallow	MW-62	672648.15	522702.48	3371.29	14 to 29	9/21/2010	NP	16.36	3354.93	--
Shallow	MW-64	670716.03	523338.61	3369.52	15 to 30	3/25/2010	20.00	21.63	3349.19	1.63
Shallow	MW-64	670716.03	523338.61	3369.52	15 to 30	9/22/2010	19.45	20.97	3349.77	1.52
Shallow	MW-65	670949.22	523711.75	3363.60	14.5 to 29.5	3/25/2010	16.67	17.09	3346.85	0.42
Shallow	MW-65	670949.22	523711.75	3363.60	14.5 to 29.5	9/22/2010	15.98	16.41	3347.53	0.43
Shallow	MW-66	671247.57	524560.06	3363.46	14.6 to 29.6	3/25/2010	NP	16.99	3346.47	--
Shallow	MW-66	671247.57	524560.06	3363.46	14.6 to 29.6	9/22/2010	NP	15.87	3347.59	--

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Shallow	MW-67	673224.88	522342.43	3365.45	12 to 27	3/24/2010	NP	9.46	3355.99	–
Shallow	MW-67	673224.88	522342.43	3365.45	12 to 27	9/21/2010	NP	9.83	3355.62	–
Shallow	MW-68	674301.02	531466.90	3328.21	unknown	3/25/2010	NP	19.83	3308.38	–
Shallow	MW-68	674301.02	531466.90	3328.21	unknown	10/5/2010	NP	19.36	3308.85	–
Shallow	MW-69	675962.29	540401.29	3313.86	unknown	3/25/2010	NP	10.48	3303.38	–
Shallow	MW-69	675962.29	540401.29	3313.86	unknown	10/20/2010	NP	10.65	3303.21	–
Shallow	MW-70	670892.66	542787.60	3306.30	unknown	3/25/2010	NP	7.32	3298.98	–
Shallow	MW-70	670892.66	542787.60	3306.30	unknown	10/5/2010	NP	7.64	3298.66	–
Shallow	MW-71	673016.80	529560.41	3335.29	unknown	3/25/2010	NP	13.65	3321.64	–
Shallow	MW-71	673016.80	529560.41	3335.29	unknown	10/5/2010	NP	13.82	3321.47	–
Shallow	MW-72	676691.27	542662.31	3308.45	2 to 12	3/25/2010	NP	6.60	3301.85	–
Shallow	MW-72	676691.27	542662.31	3308.45	2 to 12	10/6/2010	NP	7.32	3301.13	–
Shallow	MW-73	675910.20	542130.56	3310.18	2 to 17	3/25/2010	NP	8.37	3301.81	–
Shallow	MW-73	675910.20	542130.56	3310.18	2 to 17	10/6/2010	NP	11.43	3298.75	–
Shallow	MW-74	675059.14	541546.30	3310.03	2 to 17	3/25/2010	NP	8.42	3301.61	–
Shallow	MW-74	675059.14	541546.30	3310.03	2 to 17	10/6/2010	NP	8.81	3301.22	–
Shallow	MW-75	674622.31	541132.78	3310.21	3 to 18	3/25/2010	NP	8.67	3301.54	–
Shallow	MW-75	674622.31	541132.78	3310.21	3 to 18	10/6/2010	NP	8.70	3301.51	–
Shallow	MW-76	674482.47	541053.83	3311.84	3 to 18	3/25/2010	NP	10.22	3301.62	–
Shallow	MW-76	674482.47	541053.83	3311.84	3 to 18	10/6/2010	NP	10.28	3301.56	–
Shallow	MW-77	674529.89	541104.86	3310.07	3 to 18	3/25/2010	NP	8.47	3301.60	–
Shallow	MW-77	674529.89	541104.86	3310.07	3 to 18	10/6/2010	NP	8.53	3301.54	–
Shallow	MW-78	674529.23	541073.45	3310.14	2 to 17	3/25/2010	NP	8.52	3301.62	–
Shallow	MW-78	674529.23	541073.45	3310.14	2 to 17	10/6/2010	NP	8.57	3301.57	–
Shallow	MW-79	675349.67	540906.08	3311.43	2 to 17	3/25/2010	NP	9.40	3302.03	–
Shallow	MW-79	675349.67	540906.08	3311.43	2 to 17	10/6/2010	NP	9.60	3301.83	–
Shallow	MW-80	675371.74	540646.46	3310.79	2 to 17	3/25/2010	NP	8.49	3302.30	–
Shallow	MW-80	675371.74	540646.46	3310.79	2 to 17	10/6/2010	NP	8.03	3302.76	–
Shallow	MW-81	675252.80	540544.47	3312.34	2 to 17	3/25/2010	NP	10.15	3302.19	–
Shallow	MW-81	675252.80	540544.47	3312.34	2 to 17	10/6/2010	NP	9.59	3302.75	–
Shallow	MW-82	675035.42	540806.88	3310.75	2 to 17	3/25/2010	NP	8.88	3301.87	–
Shallow	MW-82	675035.42	540806.88	3310.75	2 to 17	10/6/2010	NP	8.66	3302.09	–
Shallow	MW-83	674524.97	540832.80	3310.19	2 to 17	3/25/2010	NP	8.50	3301.69	–
Shallow	MW-83	674524.97	540832.80	3310.19	2 to 17	10/6/2010	NP	8.47	3301.72	–

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Shallow	MW-84	674798.43	540109.13	3311.59	2 to 17	3/25/2010	NP	9.35	3302.24	--
Shallow	MW-84	674798.43	540109.13	3311.59	2 to 17	10/6/2010	NP	9.14	3302.45	--
Shallow	MW-85	674566.12	539805.49	3311.09	3 to 18	3/25/2010	8.65	8.66	3302.44	0.01
Shallow	MW-85	674566.12	539805.49	3311.09	3 to 18	10/6/2010	8.89	9.92	3301.99	1.03
Shallow	MW-86	674645.96	539671.17	3311.06	2 to 17	3/25/2010	8.29	8.30	3302.77	0.01
Shallow	MW-86	674645.96	539671.17	3311.06	2 to 17	10/6/2010	8.45	9.98	3302.30	1.53
Shallow	MW-87	673379.98	543280.45	3307.64	2 to 17	3/25/2010	NP	7.83	3299.81	--
Shallow	MW-87	673379.98	543280.45	3307.64	2 to 17	10/5/2010	NP	7.82	3299.82	--
Shallow	MW-88	672899.14	540832.09	3308.68	3 to 18	3/26/2010	NP	7.84	3300.84	--
Shallow	MW-88	672899.14	540832.09	3308.68	3 to 18	10/5/2010	NP	8.57	3300.11	--
Shallow	MW-89	675211.56	533835.00	3318.32	2 to 17	3/26/2010	NP	9.82	3308.50	--
Shallow	MW-89	675211.56	533835.00	3318.32	2 to 17	10/6/2010	NP	9.09	3309.23	--
Shallow	MW-90	672909.28	521960.18	3369.42	5 to 20	3/24/2010	NP	12.22	3357.20	--
Shallow	MW-90	672909.28	521960.18	3369.42	5 to 20	9/21/2010	NP	12.09	3357.33	--
Shallow	MW-91	672945.86	522146.43	3367.73	7 to 22	3/24/2010	NP	10.96	3356.77	--
Shallow	MW-91	672945.86	522146.43	3367.73	7 to 22	9/21/2010	NP	10.86	3356.87	--
Shallow	MW-92	672766.10	522167.26	3368.72	5 to 20	3/24/2010	NP	11.88	3356.84	--
Shallow	MW-92	672766.10	522167.26	3368.72	5 to 20	9/21/2010	NP	12.10	3356.62	--
Shallow	MW-93	672897.25	522446.83	3363.79	5 to 20	3/25/2010	NP	7.30	3356.49	--
Shallow	MW-93	672897.25	522446.83	3363.79	5 to 20	9/21/2010	NP	18.04	3345.75	--
Shallow	MW-94	673510.54	522336.27	3367.97	5 to 20	3/25/2010	12.21	13.58	3355.49	1.37
Shallow	MW-94	673510.54	522336.27	3367.97	5 to 20	9/22/2010	10.47	22.87	3355.02	12.40
Shallow	MW-95	673084.72	522308.89	3368.70	7 to 22	3/24/2010	NP	12.46	3356.24	--
Shallow	MW-95	673084.72	522308.89	3368.70	7 to 22	9/21/2010	NP	12.77	3355.93	--
Shallow	MW-96	673143.60	521917.50	3368.92	7 to 22	3/24/2010	NP	12.08	3356.84	--
Shallow	MW-96	673143.60	521917.50	3368.92	7 to 22	9/21/2010	NP	11.91	3357.01	--
Shallow	MW-97	672660.45	522295.96	3365.92	8 to 23	3/25/2010	9.51	10.70	3356.17	1.19
Shallow	MW-97	672660.45	522295.96	3365.92	8 to 23	9/22/2010	10.28	13.15	3355.07	2.87
Shallow	MW-98	672517.05	523220.39	3361.36	13 to 23	3/25/2010	NP	9.18	3352.18	--
Shallow	MW-98	672517.05	523220.39	3361.36	13 to 23	9/21/2010	NP	10.80	3350.56	--
Shallow	MW-99	671652.52	524579.74	3364.07	12 to 27	3/25/2010	NP	17.85	3346.22	--
Shallow	MW-99	671652.52	524579.74	3364.07	12 to 27	9/22/2010	NP	16.42	3347.65	--
Shallow	MW-101	671628.25	523506.58	3364.23	8 to 23	3/25/2010	NP	15.40	3348.83	--
Shallow	MW-101	671628.25	523506.58	3364.23	8 to 23	9/22/2010	NP	15.16	3349.07	--

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Aquifer	Well ID	Northing	Easting	TOC Elevation (ft amsl)	Screen Interval (ft bgs)	Date Measured	Depth to PSH (ft btoc)	Depth to Water (ft btoc)	Water Elevation (ft amsl)	PSH Thickness (ft)
Shallow	MW-102	671176.70	522937.01	3367.64	12 to 27	3/25/2010	16.42	17.01	3351.10	0.59
Shallow	MW-102	671176.70	522937.01	3367.64	12 to 27	9/22/2010	16.12	17.57	3351.23	1.45
Shallow	MW-103	670472.55	522607.80	3372.47	7 to 22	3/26/2010	NP	18.80	3353.67	--
Shallow	MW-103	670472.55	522607.80	3372.47	7 to 22	9/22/2010	NP	18.42	3354.05	--
Shallow	MW-104	670450.35	522729.44	3371.43	3 to 18	3/26/2010	NP	14.05	3357.38	--
Shallow	MW-104	670450.35	522729.44	3371.43	3 to 18	9/22/2010	NP	13.78	3357.65	--
Shallow	MW-105	671924.44	522454.93	3364.99	8 to 18	3/25/2010	11.14	11.30	3353.82	0.16
Shallow	MW-105	671924.44	522454.93	3364.99	8 to 18	9/22/2010	11.82	11.95	3353.14	0.13
Shallow	MW-106	672207.14	523454.55	3358.98	0 to 11	3/25/2010	NP	8.28	3350.70	--
Shallow	MW-106	672207.14	523454.55	3358.98	0 to 11	9/22/2010	NP	9.02	3349.96	--
Shallow	MW-107	671961.38	524600.45	3359.44	12 to 22	3/25/2010	NP	12.43	3347.01	--
Shallow	MW-107	671961.38	524600.45	3359.44	12 to 22	9/22/2010	NP	12.33	3347.11	--
Shallow	MW-108	673659.33	521910.16	3369.11	9 to 24	3/24/2010	NP	13.50	3355.61	--
Shallow	MW-108	673659.33	521910.16	3369.11	9 to 24	9/21/2010	NP	12.98	3356.13	--
Shallow	NCL-31	673629.51	521669.01	3367.54	13 to 18	3/24/2010	NP	11.55	3355.99	--
Shallow	NCL-31	673629.51	521669.01	3367.54	13 to 18	9/21/2010	NP	10.69	3356.85	--
Shallow	NCL-32	673984.83	521808.14	3364.91	17 to 22	3/24/2010	NP	2.59	3362.32	--
Shallow	NCL-32	673984.83	521808.14	3364.91	17 to 22	9/21/2010	NP	1.33	3363.58	--
Shallow	NCL-33	673967.20	522245.18	3363.97	13 to 18	3/24/2010	NP	10.94	3353.03	--
Shallow	NCL-33	673967.20	522245.18	3363.97	13 to 18	9/21/2010	NP	10.42	3353.55	--
Shallow	NCL-34A	673885.52	522235.08	3365.49	unknown	3/24/2010	NP	10.80	3354.69	--
Shallow	NCL-34A	673885.52	522235.08	3365.49	unknown	9/21/2010	NP	10.89	3354.60	--
Shallow	NCL-44	673986.41	522062.11	3364.45	unknown	3/24/2010	NP	9.42	3355.03	--
Shallow	NCL-44	673986.41	522062.11	3364.45	unknown	9/21/2010	NP	9.66	3354.79	--
Shallow	NCL-49	674099.16	521648.40	3371.13	unknown	3/24/2010	NP	16.31	3354.82	--
Shallow	NCL-49	674099.16	521648.40	3371.13	unknown	9/21/2010	NP	16.75	3354.38	--
Shallow	NP-1	672992.73	528035.04	3342.40	unknown	3/24/2010	NP	13.45	3328.95	--
Shallow	NP-1	672992.73	528035.04	3342.40	unknown	10/5/2010	NP	14.41	3327.99	--
Shallow	NP-2	673571.19	527611.64	3342.77	9.5 to 18.5	3/24/2010	NP	10.90	3331.87	--
Shallow	NP-2	673571.19	527611.64	3342.77	9.5 to 18.5	10/5/2010	NP	13.43	3329.34	--
Shallow	NP-3	673990.66	528019.54	3342.93	9.5 to 18.5	3/24/2010	NP	11.27	3331.66	--
Shallow	NP-3	673990.66	528019.54	3342.93	9.5 to 18.5	10/5/2010	NP	13.87	3329.06	--
Shallow	NP-4	674337.35	528351.85	3345.73	24.5 to 33.5	3/24/2010	NP	18.58	3327.15	--
Shallow	NP-4	674337.35	528351.85	3345.73	24.5 to 33.5	10/5/2010	NP	22.51	3323.22	--

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Aquifer	Well ID	Northing	Easting	TOC Elevation (ft amsl)	Screen Interval (ft bgs)	Date Measured	Depth to PSH (ft btoc)	Depth to Water (ft btoc)	Water Elevation (ft amsl)	PSH Thickness (ft)
Shallow	NP-5	675512.24	524698.19	3349.29	unknown	3/24/2010	NP	10.83	3338.46	--
Shallow	NP-5	675512.24	524698.19	3349.29	unknown	9/21/2010	NP	12.95	3336.34	--
Shallow	NP-6	672945.23	529083.91	3338.05	unknown	3/24/2010	NP	11.89	3326.16	--
Shallow	NP-6	672945.23	529083.91	3338.05	unknown	10/5/2010	NP	11.29	3326.76	--
Shallow	NP-8	675399.60	538245.49	3314.67	unknown	3/24/2010	NP	11.88	3302.79	--
Shallow	NP-8	675399.60	538245.49	3314.67	unknown	10/6/2010	NP	11.14	3303.53	--
Shallow	NP-9	674767.14	523571.69	3360.62	unknown	3/24/2010	NP	5.32	3355.30	--
Shallow	NP-9	674767.14	523571.69	3360.62	unknown	9/21/2010	NP	6.93	3353.69	--
Shallow	OCD-1R	676741.31	541568.00	3314.27	unknown	3/25/2010	NP	11.42	3302.85	--
Shallow	OCD-1R	676741.31	541568.00	3314.27	unknown	10/6/2010	NP	10.74	3303.53	--
Shallow	OCD-2A	677036.12	542157.14	3314.16	unknown	3/25/2010	NP	11.48	3302.68	--
Shallow	OCD-2A	677036.12	542157.14	3314.16	unknown	10/6/2010	NP	10.43	3303.73	--
Valley Fill	OCD-2B	677034.65	542167.57	3313.07	unknown	3/25/2010	NP	10.73	3302.34	--
Valley Fill	OCD-2B	677034.65	542167.57	3313.07	unknown	10/6/2010	NP	10.72	3302.35	--
Shallow	OCD-3	677516.31	543024.47	3314.43	unknown	3/25/2010	NP	11.98	3302.45	--
Shallow	OCD-3	677516.31	543024.47	3314.43	unknown	10/6/2010	NP	11.17	3303.26	--
Shallow	OCD-4	678099.52	543893.55	3313.68	unknown	3/25/2010	NP	11.27	3302.41	--
Shallow	OCD-4	678099.52	543893.55	3313.68	unknown	10/6/2010	NP	10.45	3303.23	--
Shallow	OCD-5	677081.54	544295.35	3311.27	unknown	3/25/2010	NP	9.40	3301.87	--
Shallow	OCD-5	677081.54	544295.35	3311.27	unknown	10/6/2010	NP	8.61	3302.66	--
Shallow	OCD-6	676538.82	543540.03	3311.40	unknown	3/25/2010	NP	10.01	3301.39	--
Shallow	OCD-6	676538.82	543540.03	3311.40	unknown	10/6/2010	NP	8.91	3302.49	--
Shallow	OCD-7A	676169.74	543071.88	3310.03	5.5 to 19.5	3/25/2010	NP	8.81	3301.22	--
Shallow	OCD-7A	676169.74	543071.88	3310.03	5.5 to 19.5	10/6/2010	NP	8.24	3301.79	--
Valley Fill	OCD-7B	676157.36	543081.99	3310.26	43.5 to 52.5	3/25/2010	NP	8.75	3301.51	--
Valley Fill	OCD-7B	676157.36	543081.99	3310.26	43.5 to 52.5	10/6/2010	NP	8.37	3301.89	--
Valley Fill	OCD-7C	676155.95	543069.21	3310.10	60.25 to 69.75	3/25/2010	NP	8.42	3301.68	--
Valley Fill	OCD-7C	676155.95	543069.21	3310.10	60.25 to 69.75	10/6/2010	NP	8.29	3301.81	--
Shallow	OCD-8A	674976.41	543376.95	3308.72	unknown	3/25/2010	NP	9.13	3299.59	--
Shallow	OCD-8A	674976.41	543376.95	3308.72	unknown	10/6/2010	NP	10.17	3298.55	--
Valley Fill	OCD-8B	674992.24	543375.06	3309.19	unknown	3/25/2010	NP	8.16	3301.03	--
Valley Fill	OCD-8B	674992.24	543375.06	3309.19	unknown	10/6/2010	NP	8.14	3301.05	--
Shallow	RW-1	672825.27	522204.68	3367.03	--	3/26/2010	10.22	10.23	3356.81	0.01
Shallow	RW-1	672825.27	522204.68	3367.03	--	9/22/2010	10.33	10.35	3356.70	0.02

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Aquifer	Well ID	Northing	Easting	TOC Elevation (ft amsl)	Screen Interval (ft bgs)	Date Measured	Depth to PSH (ft btoc)	Depth to Water (ft btoc)	Water Elevation (ft amsl)	PSH Thickness (ft)
Shallow	RW-2	672781.86	522337.29	3368.43	--	3/26/2010	NP	11.68	3356.75	--
Shallow	RW-2	672781.86	522337.29	3368.43	--	9/22/2010	12.50	12.53	3355.92	0.03
Shallow	RW-4	671378.27	523010.47	3364.86	--	3/26/2010	NP	15.93	3348.93	--
Shallow	RW-4	671378.27	523010.47	3364.86	--	9/22/2010	NP	15.90	3348.96	--
Shallow	RW-5	671271.08	523652.31	3363.81	--	3/26/2010	15.49	17.42	3347.93	1.93
Shallow	RW-5	671271.08	523652.31	3363.81	--	9/22/2010	14.91	17.03	3348.48	2.12
Shallow	RW-6	670969.39	522843.22	3368.36	--	3/26/2010	16.51	16.57	3351.84	0.06
Shallow	RW-6	670969.39	522843.22	3368.36	--	9/22/2010	16.69	16.84	3351.64	0.15
Shallow	RW-7	673579.35	522098.94	3367.09	--	3/26/2010	NP	11.31	3355.78	--
Shallow	RW-7	673579.35	522098.94	3367.09	--	9/22/2010	NP	11.36	3355.73	--
Shallow	RW-8	673266.20	522321.21	3368.10	--	3/26/2010	11.89	12.34	3356.12	0.45
Shallow	RW-8	673266.20	522321.21	3368.10	--	9/22/2010	12.41	12.81	3355.61	0.40
Shallow	RW-9	673423.49	523371.16	3359.51	--	3/26/2010	NP	9.44	3350.07	--
Shallow	RW-9	673423.49	523371.16	3359.51	--	9/22/2010	NP	11.15	3348.36	--
Shallow	RW-10	673076.17	523469.29	3360.61	--	3/26/2010	NP	10.14	3350.47	--
Shallow	RW-10	673076.17	523469.29	3360.61	--	9/22/2010	NP	12.30	3348.31	--
Shallow	RW-11-0	669938.15	527541.66	3353.95	--	3/24/2010	NP	Dry	--	--
Shallow	RW-11-0	669938.15	527541.66	3353.95	--	9/22/2010	NP	18.10	3335.85	--
Shallow	RW-12	670533.38	527533.00	3352.55	--	3/26/2010	NP	Dry	--	--
Shallow	RW-12	670533.38	527533.00	3352.55	--	9/22/2010	NP	18.14	3334.41	--
Shallow	RW-13	671041.58	527528.79	3351.95	--	3/26/2010	NP	22.45	3329.50	--
Shallow	RW-13	671041.58	527528.79	3351.95	--	9/22/2010	18.08	18.20	3333.85	0.12
Shallow	RW-14	671603.65	527519.99	3351.48	--	3/26/2010	19.95	21.31	3331.26	1.36
Shallow	RW-14	671603.65	527519.99	3351.48	--	9/22/2010	17.90	18.05	3333.55	0.15
Shallow	RW-15C	670820.45	524123.41	3361.41	--	3/26/2010	17.15	18.04	3344.08	0.89
Shallow	RW-15C	670820.45	524123.41	3361.41	--	9/22/2010	16.80	17.22	3344.53	0.42
Shallow	RW-16B	673876.71	523156.09	3360.97	--	3/26/2010	NP	11.38	3349.59	--
Shallow	RW-16B	673876.71	523156.09	3360.97	--	9/21/2010	NP	12.29	3348.68	--
Shallow	RW-17A	673978.33	522723.59	3364.72	--	3/26/2010	NP	9.92	3354.80	--
Shallow	RW-17A	673978.33	522723.59	3364.72	--	9/21/2010	NP	10.91	3353.81	--
Shallow	RW-18A	673750.19	526188.64	3350.84	--	3/26/2010	NP	11.15	3339.69	--
Shallow	RW-18A	673750.19	526188.64	3350.84	--	9/22/2010	NP	12.82	3338.02	--
Shallow	TEL-1	672966.33	523412.82	3358.23	13 to 23	3/25/2010	NP	7.62	3350.61	--
Shallow	TEL-1	672966.33	523412.82	3358.23	13 to 23	9/21/2010	9.70	9.71	3348.53	0.01

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Shallow	TEL-2	672885.90	523419.29	3359.12	13 to 23	3/25/2010	NP	8.45	3350.67	--
Shallow	TEL-2	672885.90	523419.29	3359.12	13 to 23	9/21/2010	NP	10.45	3348.67	--
Shallow	TEL-3	672796.06	523459.33	3358.33	13 to 23	3/25/2010	NP	7.25	3351.08	--
Shallow	TEL-3	672796.06	523459.33	3358.33	13 to 23	9/21/2010	9.52	9.53	3348.81	0.01
Shallow	TEL-4	672715.99	523181.18	3360.24	13 to 23	3/25/2010	NP	8.72	3351.52	--
Shallow	TEL-4	672715.99	523181.18	3360.24	13 to 23	9/21/2010	NP	10.02	3350.22	--
Shallow	UG-1	672453.27	520746.73	3372.94	8 to 23	3/25/2010	NP	16.65	3356.29	--
Shallow	UG-1	672453.27	520746.73	3372.94	8 to 23	9/21/2010	NP	15.80	3357.14	--
Shallow	UG-2	670726.77	520942.36	3380.41	15 to 30	3/25/2010	NP	20.37	3360.04	--
Shallow	UG-2	670726.77	520942.36	3380.41	15 to 30	9/21/2010	NP	20.36	3360.05	--
Shallow	UG-3R	671992.70	519424.77	3384.08	17 to 37	3/25/2010	NP	29.16	3354.92	--
Shallow	UG-3R	671992.70	519424.77	3384.08	17 to 37	9/21/2010	NP	27.61	3356.47	--

Definitions:

amsl = above mean sea level
bgs = below ground surface
btoc = below top of casing
ft = feet
NP = not present
PSH = phase separated hydrocarbons
unknown = screen interval not readily availble

Table 2 - Well Purging and Water Quality Measurement Data

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Well	Date	Time	Purge Method	Temperature (°C)	Conductivity (S/m)	DO (mg/L)	pH (std units)	ORP (mV)
KWB-1A	4/13/2010	825	Low Flow	17.40	3.331	0.29	6.73	-113
KWB-1A	10/15/2010	917	Low Flow	18.41	4.051	1.88	6.59	31.2
KWB-2R	10/20/2010	1045	Low Flow	21.43	2.840	0.37	6.63	-138.5
KWB-3AR	4/13/2010	1115	Low Flow	17.87	4.992	4.47	6.73	53.4
KWB-3AR	10/19/2010	1023	Low Flow	18.07	5.440	1.09	6.69	191.7
KWB-7	4/13/2010	935	Low Flow	18.13	3.180	0.20	6.73	8.7
KWB-7	10/19/2010	848	Low Flow	17.42	3.943	0.36	6.59	191.5
KWB-9	4/14/2010	1355	Low Flow	18.20	3.301	1.56	6.55	41.3
KWB-9	10/19/2010	1419	Low Flow	19.68	3.773	0.69	6.41	210.9
KWB-11A	4/13/2010	1035	Low Flow	22.41	4.388	1.90	6.58	22.3
KWB-11A	10/14/2010	1612	Low Flow	18.05	4.972	0.73	6.31	107.9
KWB-11B	10/14/2010	1515	Low Flow	23.58	3.092	0.78	7.22	74.1
KWB-12A	10/19/2010	1217	Low Flow	21.47	4.005	0.63	6.50	198.5
KWB-12B	10/19/2010	1312	Low Flow	19.52	4.018	0.57	6.56	209.9
KWB-13	4/13/2010	730	Low Flow	17.47	3.083	4.61	6.73	90.2
MW-1R	4/12/2010	1200	Low Flow	18.28	6.888	0.11	7.22	-15.6
MW-2A	4/6/2010	805	Low Flow	16.40	17.990	0.43	6.90	-78.4
MW-2A	10/11/2010	1202	Low Flow	22.30	12.219	0.46	6.73	-47.1
MW-2B	4/6/2010	830	Submersible	18.55	3.647	0.23	7.08	-10.5
MW-3	4/6/2010	1125	Low Flow	19.06	6.072	0.15	6.98	-70
MW-3	10/8/2010	1330	Low Flow	23.29	6.035	8.10	6.70	47.8
MW-4A	4/12/2010	1440	Low Flow	18.95	5.803	0.10	7.14	-164
MW-4A	10/13/2010	1228	Low Flow	21.10	6.349	0.88	6.91	-107.3
MW-4B	4/12/2010	1605	Submersible	19.68	4.592	0.05	6.97	-113
MW-5A	4/8/2010	1525	Low Flow	17.98	18.000	0.05	6.98	-146
MW-5A	10/11/2010	1351	Low Flow	22.08	14.967	0.49	6.69	-80.7
MW-5B	4/8/2010	1600	Submersible	18.62	9.934	0.03	6.79	-130
MW-6A	4/6/2010	1205	Low Flow	19.74	5.104	0.07	7.42	-179
MW-6B	4/6/2010	1240	Submersible	19.33	6.060	0.06	7.23	-139
MW-7A	4/8/2010	1415	Low Flow	18.52	9.093	0.10	7.24	-151
MW-7A	10/11/2010	1440	Low Flow	22.70	9.418	0.86	6.96	-98.6
MW-7B	4/8/2010	1440	Submersible	18.83	6.437	0.05	7.03	-38
MW-8	4/14/2010	1145	Low Flow	17.77	4.606	0.08	7.04	8.6
MW-8	10/15/2010	1228	Low Flow	21.21	5.338	0.71	6.81	99.9
MW-10	4/9/2010	750	Low Flow	17.52	6.769	0.11	6.87	-24.4
MW-10	10/14/2010	1131	Low Flow	19.42	7.257	0.80	6.67	50.5
MW-11A	4/8/2010	1055	Low Flow	17.92	26.710	0.11	6.82	58.9
MW-11B	4/8/2010	1025	Submersible	19.40	21.670	0.05	6.95	-117
MW-15	4/12/2010	1400	Low Flow	18.22	6.268	0.21	6.95	-44
MW-16	4/12/2010	1035	Low Flow	16.00	4.195	1.27	7.17	38.4
MW-18	3/30/2010	1550	Low Flow	19.47	3.169	1.60	6.74	-50.7
MW-18	10/21/2010	1507	Low Flow	23.02	3.100	0.68	6.63	-12
MW-18A	4/7/2010	1205	Low Flow	17.80	19.880	0.12	7.13	-208
MW-18A	10/13/2010	1036	Low Flow	21.96	21.848	0.24	6.88	-153.7
MW-18B	4/7/2010	1300	Low Flow	19.16	5.764	0.03	6.96	-63.9
MW-20	4/14/2010	1110	Low Flow	18.80	4.789	0.20	6.96	155
MW-21	4/14/2010	1215	Low Flow	18.56	5.520	0.49	6.93	73
MW-21	10/15/2010	1138	Low Flow	20.83	6.041	0.77	6.71	91.9

Table 2 - Well Purging and Water Quality Measurement Data

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Well	Date	Time	Purge Method	Temperature (°C)	Conductivity (S/m)	DO (mg/L)	pH (std units)	ORP (mV)
MW-22A	4/9/2010	945	Low Flow	17.13	7.976	0.16	6.98	-125
MW-22A	10/14/2010	1312	Low Flow	22.95	8.470	0.43	6.76	-66.1
MW-22B	4/9/2010	915	Submersible	18.74	6.917	2.34	6.88	-133
MW-23	3/29/2010	1133	Low Flow	24.20	3.498	0.03	6.89	-350
MW-23	10/28/2010	1219	Low Flow	26.12	3.168	11.00	6.79	-240.5
MW-25	4/12/2010	1313	Low Flow	19.22	3.996	0.14	7.20	-2.5
MW-26	4/12/2010	1110	Low Flow	17.63	4.891	0.16	7.00	38.6
MW-27	4/12/2010	905	Low Flow	20.17	2.447	0.18	6.90	71.7
MW-28	4/1/2010	1520	Low Flow	20.82	2.382	0.13	6.70	-326
MW-28	10/26/2010	1510	Low Flow	22.10	2.939	0.94	6.51	-304.1
MW-29	3/29/2010	1500	Low Flow	20.58	4.428	0.13	6.60	-305
MW-29	10/28/2010	1513	Low Flow	20.75	4.385	10.32	6.41	-190
MW-30	3/31/2010	935	Low Flow	19.40	4.887	0.18	6.56	21.1
MW-40	3/29/2010	1420	Low Flow	21.34	2.605	0.04	6.71	-357
MW-41	3/29/2010	1335	Low Flow	20.10	4.918	0.04	6.39	-340
MW-41	10/27/2010	1048	Low Flow	21.43	4.773	2.98	6.54	-247.7
MW-42	3/29/2010	1300	Low Flow	19.57	4.980	0.08	6.45	-350
MW-42	10/27/2010	1147	Low Flow	22.58	4.621	0.74	6.37	-286.5
MW-43	3/29/2010	1210	Low Flow	20.03	4.081	0.04	6.78	-364
MW-43	10/27/2010	1240	Low Flow	23.41	3.673	1.67	6.70	-279.7
MW-45	3/31/2010	1145	Low Flow	19.66	4.654	0.14	6.79	-172
MW-45	11/2/2010	835	Low Flow	19.91	3.751	1.52	6.58	-45.9
MW-46R	11/2/2010	958	Low Flow	19.93	3.881	1.80	6.80	73.3
MW-49	4/2/2010	1010	Low Flow	20.85	3.132	0.14	6.61	-369
MW-49	10/28/2010	1413	Low Flow	22.04	2.945	11.42	6.43	-327.5
MW-50	4/5/2010	1050	Low Flow	23.02	3.141	0.23	6.82	-328
MW-50	11/2/2010	1420	Low Flow	23.50	2.731	1.62	6.67	-201.4
MW-52	4/15/2010	835	Low Flow	19.52	2.785	0.59	6.88	-21.7
MW-52	10/18/2010	1346	Low Flow	22.39	3.023	0.56	6.65	172.2
MW-53	4/14/2010	800	Low Flow	19.46	2.359	0.14	6.96	35.9
MW-54A	4/14/2010	920	Low Flow	18.78	2.399	0.21	6.59	50.1
MW-54A	10/20/2010	1148	Low Flow	22.17	2.565	0.50	6.42	71.4
MW-54B	4/14/2010	935	Low Flow	19.46	2.093	0.18	6.63	64.4
MW-55	3/31/2010	815	Low Flow	17.55	4.333	3.00	6.76	39.1
MW-55	10/27/2010	955	Low Flow	2.47	3.755	2.03	6.96	47.4
MW-56	3/31/2010	1020	Low Flow	20.60	4.141	0.17	6.62	-2.4
MW-56	10/27/2010	900	Low Flow	20.62	4.017	1.62	6.50	39.4
MW-57	11/3/2010	935	Low Flow	18.59	8.678	0.68	6.56	-138.2
MW-58	4/15/2010	725	Low Flow	18.20	1.352	2.79	6.70	-119
MW-58	10/19/2010	1514	Low Flow	21.15	2.286	0.26	6.48	-48.2
MW-59	4/1/2010	1720	Low Flow	20.00	3.736	1.59	6.60	-246
MW-60	4/1/2010	1630	Low Flow	20.37	4.331	0.09	6.53	-320
MW-60	11/2/2010	1311	Low Flow	21.07	3.845	3.00	6.42	-209.2
MW-61	4/5/2010	850	Low Flow	22.16	5.393	0.10	6.72	-363
MW-61	10/28/2010	949	Low Flow	21.69	4.595	1.62	6.61	-311.8
MW-62	4/5/2010	930	Low Flow	21.22	2.275	0.21	6.70	-369
MW-62	10/28/2010	21.83	Low Flow	21.83	2.250	10.40	6.44	-323.6

Table 2 - Well Purging and Water Quality Measurement Data

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Navajo Refinery, Artesia, New Mexico

Well	Date	Time	Purge Method	Temperature (°C)	Conductivity (S/m)	DO (mg/L)	pH (std units)	ORP (mV)
MW-66	4/1/2010	1440	Low Flow	22.70	1.986	0.13	6.69	-272
MW-66	10/26/2010	1409	Low Flow	24.77	1.979	0.78	6.55	-252.8
MW-67	3/30/2010	1215	Low Flow	22.03	2.306	0.24	6.83	-344
MW-67	10/29/2010	1214	Low Flow	23.10	2.079	3.84	6.53	-261
MW-68	4/13/2010	1210	Low Flow	20.51	2.642	1.70	6.92	2.7
MW-70	4/7/2010	1055	Low Flow	16.07	5.756	0.11	7.05	-73
MW-70	10/13/2010	1123	Low Flow	21.63	6.310	0.38	6.86	-93.4
MW-71	4/14/2010	1250	Low Flow	18.11	5.712	3.04	6.95	128
MW-71	10/15/2010	1055	Low Flow	19.72	6.587	1.27	6.73	96.1
MW-72	4/6/2010	900	Low Flow	15.15	14.760	0.11	6.82	-112
MW-72	10/14/2010	1035	Low Flow	19.07	13.796	0.61	6.74	-89.3
MW-73	4/5/2010	1225	Low Flow	16.90	12.480	0.13	7.07	-61.4
MW-73	10/14/2010	932	Low Flow	18.08	12.347	0.45	6.82	-55.1
MW-74	4/5/2010	1305	Low Flow	18.40	11.510	0.09	6.92	-33.7
MW-74	10/11/2010	930	Low Flow	20.80	11.903	0.94	6.74	63.4
MW-75	4/5/2010	1350	Low Flow	19.76	8.633	0.06	7.04	-131
MW-75	10/11/2010	845	Low Flow	20.36	8.578	0.32	6.78	-55.9
MW-76	4/6/2010	1455	Low Flow	19.98	7.225	0.03	6.99	-127
MW-76	10/8/2010	1215	Low Flow	23.27	7.378	8.20	6.69	-54.9
MW-77	4/6/2010	1540	Low Flow	19.01	8.710	0.05	6.87	-115
MW-77	10/8/2010	1115	Low Flow	22.19	8.640	0.60	6.59	-31.2
MW-78	4/7/2010	740	Low Flow	15.97	5.400	0.82	6.94	48.2
MW-79	4/5/2010	1425	Low Flow	17.60	10.120	0.38	6.93	-34.8
MW-79	10/14/2010	833	Low Flow	18.95	9.726	0.68	6.77	-26.7
MW-80	4/5/2010	1510	Low Flow	17.83	7.110	0.14	6.98	-60.4
MW-81	4/5/2010	1555	Low Flow	18.88	7.695	0.15	6.97	-30
MW-82	4/6/2010	1410	Low Flow	19.52	8.514	0.05	6.93	-155
MW-83	4/7/2010	855	Low Flow	16.56	6.840	0.08	6.95	-59.4
MW-83	10/8/2010	1032	Low Flow	22.82	7.440	6.60	6.60	123.3
MW-84	4/6/2010	1325	Low Flow	19.86	10.370	0.04	6.98	-15.1
MW-84	10/8/2010	910	Low Flow	21.00	10.787	1.00	6.78	-52.5
MW-87	4/7/2010	1010	Low Flow	16.26	16.890	0.92	7.13	-0.3
MW-87	10/13/2010	935	Low Flow	21.76	17.065	0.27	6.83	66.6
MW-88	4/9/2010	1045	Low Flow	17.62	7.218	0.14	7.04	3.7
MW-88	10/14/2010	1404	Low Flow	21.17	7.530	0.73	6.84	51.5
MW-89	4/12/2010	945	Low Flow	16.75	3.114	0.15	6.89	-3.8
MW-90	3/30/2010	800	Low Flow	17.76	3.391	0.09	6.76	-375
MW-90	10/22/2010	1039	Low Flow	21.81	3.566	1.80	6.62	-322.2
MW-91	3/30/2010	1105	Low Flow	22.25	2.410	0.05	6.56	-403
MW-91	10/22/2010	1221	Low Flow	23.86	2.376	1.06	6.47	-388.2
MW-92	3/30/2010	720	Low Flow	16.33	3.481	0.14	6.71	-330
MW-93	3/29/2010	1100	Low Flow	17.80	2.515	4.62	6.67	-350
MW-93	10/22/2010	947	Low Flow	21.62	2.311	2.26	6.53	-347.8
MW-95	3/30/2010	1140	Low Flow	22.23	2.515	0.05	6.73	-299
MW-96	3/30/2010	1030	Low Flow	20.93	2.604	0.05	6.77	-378
MW-96	10/22/2010	1132	Low Flow	22.70	2.421	1.44	6.65	-322.9
MW-98	4/5/2010	1005	Low Flow	20.77	3.778	0.17	6.76	-403
MW-98	10/28/2010	1327	Low Flow	22.14	3.351	19.14	6.55	-373.7

Table 2 - Well Purging and Water Quality Measurement Data

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Well	Date	Time	Purge Method	Temperature (°C)	Conductivity (S/m)	DO (mg/L)	pH (std units)	ORP (mV)
MW-99	4/1/2010	1400	Low Flow	23.33	2.318	0.03	6.67	-349
MW-99	10/26/2010	1308	Low Flow	23.20	2.450	0.75	6.52	-324.2
MW-101	4/1/2010	1555	Low Flow	22.28	2.159	0.12	6.57	-294
MW-101	11/2/2010	1215	Low Flow	22.38	1.910	5.39	6.46	-198.5
MW-103	4/1/2010	730	Low Flow	23.05	4.828	0.15	7.81	-315
MW-104	4/1/2010	810	Low Flow	14.31	1.130	0.16	7.25	-325
MW-104	10/26/2010	1145	Low Flow	21.00	1.795	1.23	6.80	-195.1
MW-106	4/2/2010	935	Low Flow	19.13	3.434	0.08	6.98	-367
MW-106	10/28/2010	1610	Low Flow	22.12	3.549	9.12	6.50	-361.9
MW-107	3/31/2010	1235	Low Flow	20.21	2.037	0.13	6.84	-172
MW-107	11/2/2010	1110	Low Flow	21.74	1.704	1.23	6.73	-71.4
MW-108	4/16/2010	1300	Low Flow	19.99	1.885	0.07	6.83	-415
MW-108	10/21/2010	1001	Low Flow	20.13	3.841	0.59	6.59	-319.3
NCL-31	3/30/2010	900	Low Flow	18.60	3.327	0.09	6.81	-277.6
NCL-31	10/21/2010	830	Low Flow	18.63	2.732	0.72	6.71	-135.8
NCL-32	3/30/2010	1455	Low Flow	18.47	1.680	0.34	7.27	-123
NCL-32	10/21/2010	1245	Low Flow	21.85	1.952	0.72	7.28	-142.1
NCL-33	3/30/2010	1340	Low Flow	21.27	3.262	0.09	6.50	-160
NCL-33	10/21/2010	1408	Low Flow	24.19	3.207	0.73	6.37	33.5
NCL-34	3/30/2010	1303	Low Flow	22.27	1.903	0.08	6.64	-356
NCL-34	10/21/2010	1054	Low Flow	23.02	2.461	0.80	6.52	-327.5
NCL-44	3/30/2010	1413	Low Flow	21.43	2.224	0.20	6.56	-272
NCL-44	10/21/2010	1320	Low Flow	22.13	2.108	1.28	6.44	-220.6
NCL-49	4/14/2010	845	Low Flow	19.44	2.909	0.54	6.89	38
NCL-49	10/20/2010	1243	Low Flow	22.19	3.281	0.88	6.72	96.2
NP-1	4/13/2010	1300	Low Flow	17.74	5.554	0.23	6.76	270
NP-1	10/18/2010	1553	Low Flow	18.97	5.967	0.46	6.65	194.9
NP-5	4/14/2010	1030	Low Flow	12.30	5.395	0.19	7.04	-4.1
NP-6	10/18/2010	1500	Low Flow	18.97	6.809	0.82	6.61	198.2
OCD-1R	4/8/2010	740	Low Flow	15.22	11.400	0.15	7.04	-89
OCD-1R	10/12/2010	1130	Low Flow	21.66	10.124	0.35	6.94	-62.7
OCD-2A	4/8/2010	820	Low Flow	15.86	9.145	0.17	7.12	-11.5
OCD-2A	10/12/2010	1245	Low Flow	21.24	8.400	0.94	6.92	63.4
OCD-2B	4/8/2010	850	Submersible	18.32	6.723	0.02	7.10	-75.3
OCD-3	4/8/2010	920	Low Flow	17.72	7.999	0.12	7.13	-57.2
OCD-3	10/12/2010	1329	Low Flow	21.32	5.195	1.33	7.09	-78
OCD-4	4/8/2010	955	Low Flow	18.67	16.480	0.16	7.09	-94
OCD-4	10/12/2010	1416	Low Flow	22.42	10.583	0.30	689.00	-69.6
OCD-5	4/8/2010	1220	Low Flow	18.26	16.450	0.24	7.09	-99.2
OCD-5	10/12/2010	1500	Low Flow	21.19	16.804	0.86	6.95	-71.9
OCD-6	4/6/2010	940	Low Flow	18.25	15.400	0.10	6.93	-100
OCD-6	10/11/2010	1112	Low Flow	20.27	15.308	1.45	6.79	-68.5
OCD-7A	4/6/2010	1015	Low Flow	18.32	11.410	0.18	6.96	-111.6
OCD-7A	10/11/2010	1026	Low Flow	22.58	11.816	0.74	6.80	-72.2
OCD-7B	4/6/2010	1045	Submersible	18.67	5.320	4.60	7.59	-120.3
OCD-8A	4/8/2010	1305	Low Flow	16.95	11.670	0.09	7.02	-145
OCD-8A	10/13/2010	847	Low Flow	21.98	13.794	0.38	6.78	-82.1
OCD-8B	4/7/2010	1335	Submersible	19.05	9.722	0.03	6.75	-54.5

Table 2 - Well Purging and Water Quality Measurement Data

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Well	Date	Time	Purge Method	Temperature (°C)	Conductivity (S/m)	DO (mg/L)	pH (std units)	ORP (mV)
RA-1227	11/3/2010	1014	Tap	17.40	2.871	6.89	6.80	-43.4
RA-313	4/16/2010	905	Tap	20.13	1.124	6.35	7.82	-61
RA-3156	4/14/2010	1402	Tap	16.69	2.941	4.01	6.92	60.6
RA-3156	11/3/2010	1041	Tap	14.50	3.106	7.47	6.77	19.3
RA-4196	4/15/2010	1135	Tap	21.39	2.351	2.38	7.37	-167
RA-4196	11/3/2010	1100	Tap	18.75	2.607	3.57	7.17	-94
RA-4798	4/15/2010	1120	Tap	18.91	1.652	8.50	7.21	-55.4
RA-4798	11/3/2010	1115	Tap	18.22	2.574	4.58	6.89	-6.5
RW-1	11/2/2010	1545	Low Flow	22.43	4.277	2.51	6.56	-338.9
RW-2	11/2/2010	1501	Low Flow	23.83	3.345	3.28	6.49	-350.2
RW-4	4/2/2010	1030	Low Flow	16.69	2.658	2.00	7.25	-345
RW-7	4/2/2010	745	Low Flow	19.91	2.225	0.39	7.03	-270
RW-9	4/2/2010	820	Low Flow	15.78	3.562	0.52	7.29	-298
RW-10	4/2/2010	855	Low Flow	17.40	3.270	1.73	7.49	-195
RW-11-0	11/3/2010	838	Low Flow	18.32	2.899	3.15	6.75	-303.5
RW-16	3/31/2010	855	Low Flow	18.19	6.727	0.25	6.75	7.4
RW-17	3/31/2010	735	Low Flow	17.08	6.769	0.54	7.07	49.2
RW-18	4/13/2010	900	Low Flow	16.45	4.574	0.59	6.90	-22.9
TEL-1	4/1/2010	1135	Low Flow	19.99	4.191	0.09	6.67	-329
TEL-1	10/29/2010	840	Low Flow	18.64	3.246	9.45	6.63	-120.9
TEL-2	4/1/2010	1055	Low Flow	19.89	3.922	0.03	6.63	-388
TEL-2	10/29/2010	930	Low Flow	19.66	3.311	16.43	6.49	-298.8
TEL-3	4/1/2010	1010	Low Flow	16.00	2.855	0.05	6.68	-344
TEL-3	10/29/2010	1015	Low Flow	19.70	2.645	10.02	6.43	-322.6
TEL-4	4/1/2010	935	Low Flow	19.23	4.215	0.13	6.52	-309
TEL-4	10/29/2010	1109	Low Flow	21.55	3.306	9.46	6.37	-230.1
UG-1	4/15/2010	1010	Low Flow	21.35	2.949	3.15	7.15	14.7
UG-1	10/18/2010	1200	Low Flow	23.75	3.429	0.99	6.77	169.8
UG-2	4/15/2010	930	Low Flow	20.82	1.759	5.79	7.24	-9.8
UG-2	10/18/2010	1105	Low Flow	23.19	2.083	0.68	6.85	188.9
UG-3R	4/15/2010	1055	Submersible	20.36	2.309	0.58	6.85	5.2
UG-3R	10/26/2010	1045	Submersible	20.12	2.337	2.57	6.64	91.5

Definitions:

°C = degrees Celsius
DO = dissolved oxygen
mg/L = milligrams per liter
mV = milliVolts
ORP = oxidation/reduction potential
S/m = Siemens per meter
std units = standard pH units

Purge Methods:

Low Flow = peristaltic pump with dedicated tubing, purged until parameters stabilized
Submersible = submersible electric pump with dedicated tubing, purged minimum of 3 well volumes
Tap = irrigation well sample collected from tap or valve nearest well

Table 3 - Groundwater Screening Levels and Selected Critical Groundwater Screening Level

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Analyte	NMED GW Human Health (20.6.2.3103.A)	NMED GW Domestic (20.6.2.3103.B)	NMED GW Irrigation (20.6.2.3103.C)	EPA MCL	NMED Tap Water (SSG Table A-1)	NMED TPH	Critical Groundwater Screening Level (CGWSL)	CGWSL Source
Total Petroleum Hydrocarbons (mg/L)								
TPH - Gasoline Range Organics (GRO)							--	--
TPH - Diesel Range Organics (DRO)						2.00E-01	2.00E-01	NMED TPH
TPH - Oil Range Organics (ORO)						2.00E-01	2.00E-01	NMED TPH
VOCs (µg/L)								
1,1,1-Trichloroethane	6.00E+01			2.00E+02			6.00E+01	NMED GW Human Health (20.6.2.3103.A)
1,1,2,2-Tetrachloroethane	1.00E+01						1.00E+01	NMED GW Human Health (20.6.2.3103.A)
1,1,2,2-Tetrachloroethene	2.00E+01						2.00E+01	NMED GW Human Health (20.6.2.3103.A)
1,1,2-Trichloroethane	1.00E+01			5.00E+00			5.00E+00	EPA MCL
1,1,2-Trichloroethene	1.00E+02						1.00E+02	NMED GW Human Health (20.6.2.3103.A)
1,1-Dichloroethane	2.50E+01						2.50E+01	NMED GW Human Health (20.6.2.3103.A)
1,1-Dichloroethene				7.00E+00			7.00E+00	EPA MCL
1,2-Dibromo-3-chloropropane				2.00E-01			2.00E-01	EPA MCL
1,2-Dibromoethane (EDB)	1.00E-01			5.00E-02			5.00E-02	EPA MCL
1,2-Dichloroethane	1.00E+01			5.00E+00			5.00E+00	EPA MCL
1,2-Dichloroethene							--	--
1,2-Dichloropropane				5.00E+00			5.00E+00	EPA MCL
2-Butanone (MEK)					7.06E+03		7.06E+03	NMED Tap Water (SSG Table A-1)
4-Methyl-2-Pentanone (MIBK)					1.99E+03		1.99E+03	NMED Tap Water (SSG Table A-1)
Acetone					2.18E+04		2.18E+04	NMED Tap Water (SSG Table A-1)
Benzene	1.00E+01			5.00E+00			5.00E+00	EPA MCL
Bromodichloromethane					1.17E+00		1.17E+00	NMED Tap Water (SSG Table A-1)
Bromomethane					8.66E+00		8.66E+00	NMED Tap Water (SSG Table A-1)
Carbon Disulfide					1.04E+03		1.04E+03	NMED Tap Water (SSG Table A-1)
Carbon tetrachloride	1.00E+01			5.00E+00			5.00E+00	EPA MCL
Chlorobenzene				1.00E+02			1.00E+02	EPA MCL
Chlorodibromomethane (dibromochloromethane)				8.00E+01			8.00E+01	EPA MCL
Chloroethane (ethyl chloride)					2.09E+04		2.09E+04	NMED Tap Water (SSG Table A-1)
Chloroform	1.00E+02			8.00E+01			8.00E+01	EPA MCL
Chloromethane					1.78E+01		1.78E+01	NMED Tap Water (SSG Table A-1)
cis-1,2-Dichloroethene				7.00E+01			7.00E+01	EPA MCL
cis-1,3-Dichloropropene					4.33E+00		4.33E+00	NMED Tap Water (SSG Table A-1)
Dibromochloromethane				8.00E+01			8.00E+01	EPA MCL
Dichlorodifluoromethane					3.95E+02		3.95E+02	NMED Tap Water (SSG Table A-1)
Ethylbenzene	7.50E+02			7.00E+02			7.00E+02	EPA MCL
Isopropylbenzene (cumene)					6.79E+02		6.79E+02	NMED Tap Water (SSG Table A-1)
m-Xylene					1.43E+03		1.43E+03	NMED Tap Water (SSG Table A-1)
Methyl acetate					3.65E+04		3.65E+04	NMED Tap Water (SSG Table A-1)
Methylene chloride (dichloromethane)	1.00E+02			5.00E+00			5.00E+00	EPA MCL
Naphthalene	3.00E+01						3.00E+01	NMED GW Human Health (20.6.2.3103.A)
tert-Butyl methyl ether (MTBE)					1.25E+02		1.25E+02	NMED Tap Water (SSG Table A-1)
o-Xylene					1.43E+03		1.43E+03	NMED Tap Water (SSG Table A-1)
Styrene				1.00E+02			1.00E+02	EPA MCL
Tetrachloroethene				5.00E+00			5.00E+00	EPA MCL
Toluene	7.50E+02			1.00E+03			7.50E+02	NMED GW Human Health (20.6.2.3103.A)
trans-1,2-Dichloroethene				1.00E+02			1.00E+02	EPA MCL
Trichloroethylene				5.00E+00			5.00E+00	EPA MCL

Table 3 - Groundwater Screening Levels and Selected Critical Groundwater Screening Level

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Navajo Refinery, Artesia, New Mexico

Analyte	NMED GW Human Health (20.6.2.3103.A)	NMED GW Domestic (20.6.2.3103.B)	NMED GW Irrigation (20.6.2.3103.C)	EPA MCL	NMED Tap Water (SSG Table A-1)	NMED TPH	Critical Groundwater Screening Level (CGWSL)	CGWSL Source
Trichloroethene				5.00E+00			5.00E+00	EPA MCL
Trichlorofluoromethane					1.29E+03		1.29E+03	NMED Tap Water (SSG Table A-1)
Vinyl chloride	1.00E+00			2.00E+00			1.00E+00	NMED GW Human Health (20.6.2.3103.A)
Xylenes	6.20E+02			1.00E+04			6.20E+02	NMED GW Human Health (20.6.2.3103.A)
SVOCs (ug/L)								
1,2,4-Trichlorobenzene				7.00E+01			7.00E+01	EPA MCL
1,2-Dichlorobenzene				6.00E+02			6.00E+02	EPA MCL
1,4-Dichlorobenzene				7.50E+01			7.50E+01	EPA MCL
2,4,5-Trichlorophenol					3.65E+03		3.65E+03	NMED Tap Water (SSG Table A-1)
2,4,6-Trichlorophenol					3.65E+01		3.65E+01	NMED Tap Water (SSG Table A-1)
2,4-Dichlorophenol					1.10E+02		1.10E+02	NMED Tap Water (SSG Table A-1)
2,4-Dimethylphenol					7.30E+02		7.30E+02	NMED Tap Water (SSG Table A-1)
2,4-Dinitrophenol					7.30E+01		7.30E+01	NMED Tap Water (SSG Table A-1)
2,4-Dinitrotoluene					2.17E+00		2.17E+00	NMED Tap Water (SSG Table A-1)
2,6-Dinitrotoluene					3.65E+01		3.65E+01	NMED Tap Water (SSG Table A-1)
2-Chloronaphthalene					2.92E+03		2.92E+03	NMED Tap Water (SSG Table A-1)
2-Chlorophenol					1.83E+02		1.83E+02	NMED Tap Water (SSG Table A-1)
3,3'-Dichlorobenzidine					1.49E+00		1.49E+00	NMED Tap Water (SSG Table A-1)
4,6-Dinitro-2-methylphenol					3.65E+00		3.65E+00	NMED Tap Water (SSG Table A-1)
Acenaphthene					2.19E+03		2.19E+03	NMED Tap Water (SSG Table A-1)
Anthracene					1.10E+04		1.10E+04	NMED Tap Water (SSG Table A-1)
Benzo(a)anthracene					9.21E-01		9.21E-01	NMED Tap Water (SSG Table A-1)
Benzo(a)pyrene	7.00E-01			2.00E-01			2.00E-01	EPA MCL
Benzo(b)fluoranthene					9.21E-01		9.21E-01	NMED Tap Water (SSG Table A-1)
Benzo(k)fluoranthene					9.21E+00		9.21E+00	NMED Tap Water (SSG Table A-1)
bis(2-Chloroethyl) ether					1.19E-01		1.19E-01	NMED Tap Water (SSG Table A-1)
bis(2-Ethylhexyl)phthalate				6.00E+00			6.00E+00	EPA MCL
Chrysene					9.21E+01		9.21E+01	NMED Tap Water (SSG Table A-1)
Dibenz(a,h)anthracene					9.21E-02		9.21E-02	NMED Tap Water (SSG Table A-1)
Diethyl phthalate					2.92E+04		2.92E+04	NMED Tap Water (SSG Table A-1)
Dimethyl phthalate					3.65E+05		3.65E+05	NMED Tap Water (SSG Table A-1)
Di-n-butyl phthalate					3.65E+03		3.65E+03	NMED Tap Water (SSG Table A-1)
Fluoranthene					1.46E+03		1.46E+03	NMED Tap Water (SSG Table A-1)
Fluorene					1.46E+03		1.46E+03	NMED Tap Water (SSG Table A-1)
Hexachloro-1,3-butadiene					8.62E+00		8.62E+00	NMED Tap Water (SSG Table A-1)
Hexachlorobenzene				1.00E+00			1.00E+00	EPA MCL
Hexachlorocyclopentadiene				5.00E+01			5.00E+01	EPA MCL
Hexachloroethane					3.65E+01		3.65E+01	NMED Tap Water (SSG Table A-1)
Indeno(1,2,3-c,d)pyrene					9.21E-01		9.21E-01	NMED Tap Water (SSG Table A-1)
Isophorone					7.07E+02		7.07E+02	NMED Tap Water (SSG Table A-1)
Naphthalene	3.00E+01						3.00E+01	NMED GW Human Health (20.6.2.3103.A)
Nitrobenzene					1.49E+01		1.49E+01	NMED Tap Water (SSG Table A-1)
N-Nitrosodiphenylamine					1.37E+02		1.37E+02	NMED Tap Water (SSG Table A-1)
Pentachlorophenol				1.00E+00			1.00E+00	EPA MCL
Phenanthrene					1.10E+03		1.10E+03	NMED Tap Water (SSG Table A-1)
Phenol		5.00E+00					5.00E+00	NMED GW Domestic (20.6.2.3103.B)
Pyrene					1.10E+03		1.10E+03	NMED Tap Water (SSG Table A-1)

Table 3 - Groundwater Screening Levels and Selected Critical Groundwater Screening Level

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

Analyte	NMED GW Human Health (20.6.2.3103.A)	NMED GW Domestic (20.6.2.3103.B)	NMED GW Irrigation (20.6.2.3103.C)	EPA MCL	NMED Tap Water (SSG Table A-1)	NMED TPH	Critical Groundwater Screening Level (CGWSL)	CGWSL Source
Metals (mg/L)								
Aluminum			5.00E+00				5.00E+00	NMED GW Irrigation (20.6.2.3103.C)
Arsenic	1.00E-01			1.00E-02			1.00E-02	EPA MCL
Barium	1.00E+00			2.00E+00			1.00E+00	NMED GW Human Health (20.6.2.3103.A)
Boron			7.50E-01				7.50E-01	NMED GW Irrigation (20.6.2.3103.C)
Cadmium	1.00E-02			5.00E-03			5.00E-03	EPA MCL
Chromium	5.00E-02			1.00E-01			5.00E-02	NMED GW Human Health (20.6.2.3103.A)
Cobalt			5.00E-02				5.00E-02	NMED GW Irrigation (20.6.2.3103.C)
Copper		1.00E+00		1.30E+00			1.00E+00	NMED GW Domestic (20.6.2.3103.B)
Iron		1.00E+00					1.00E+00	NMED GW Domestic (20.6.2.3103.B)
Lead	5.00E-02			1.50E-02			1.50E-02	EPA MCL
Manganese		2.00E-01					2.00E-01	NMED GW Domestic (20.6.2.3103.B)
Mercury	2.00E-03			2.00E-03			2.00E-03	NMED GW Human Health (20.6.2.3103.A)
Molybdenum			1.00E+00				1.00E+00	NMED GW Irrigation (20.6.2.3103.C)
Nickel			2.00E-01				2.00E-01	NMED GW Irrigation (20.6.2.3103.C)
Selenium	5.00E-02			5.00E-02			5.00E-02	NMED GW Human Health (20.6.2.3103.A)
Silver	5.00E-02						5.00E-02	NMED GW Human Health (20.6.2.3103.A)
Zinc		1.00E+01					1.00E+01	NMED GW Domestic (20.6.2.3103.B)
Water Quality Parameters (mg/L, unless noted)								
Chloride		2.50E+02					2.50E+02	NMED GW Domestic (20.6.2.3103.B)
Cyanide	2.00E-01			2.00E-01			2.00E-01	NMED GW Human Health (20.6.2.3103.A)
Fluoride	1.60E+00						1.60E+00	NMED GW Human Health (20.6.2.3103.A)
Nitrate (NO3 as N)	1.00E+01			1.00E+01			1.00E+01	NMED GW Human Health (20.6.2.3103.A)
pH (Std pH units)		6 to 9					6 to 9	NMED GW Domestic (20.6.2.3103.B)
Sulfate		6.00E+02					6.00E+02	NMED GW Domestic (20.6.2.3103.B)
Total Dissolved Solids		1.00E+03					1.00E+03	NMED GW Domestic (20.6.2.3103.B)

mg/L = milligrams per liter

ug/L = micrograms per liter

CGWSL = Critical Groundwater Screening Level

Heirarchy of selecting the CGWSL is as follows:

1. Lowest of either NMED GW Standard (20.6.2.3103) or EPA MCL was selected.
2. If no NMED GW Standard or EPA MCL available, then NMED Tap Water value from SSG Table A-1, if available.
3. NMED TPH screening for "unknown oil" used for both DRO and ORO range TPH.

CGWSL Source = Source for CGWSL value

EPA MCL = EPA Maximum Contaminant Level from "Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites"

NMED GW Domestic = NMED Groundwater standard for domestic exposure taken from 20.6.2.3103.B

NMED GW Human Health = NMED Groundwater standard for human health exposure taken from 20.6.2.3103.A

NMED GW Irrigation = NMED Groundwater standard for irrigation exposure taken from 20.6.2.3103.C

NMED Tap Water = New Mexico Environment Department Soil Screening Levels, Revions 4.0, June 2006, Tap Water Screening Level

NMED TPH = New Mexico Environment Department TPH Screening Guidelines, October 2006

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	TPH		Total Metals									
				Analyte:	GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:		0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
				CGWSL Source:		NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	**Dup**													
NCL	MW-18	Apr-08		< 0.020 U	< 0.020 U	< 0.00500 J	0.0134	< 0.00500 J	< 0.200 J	< 0.00500 J	0.0784	< 0.00004 U	< 0.00500 J	0.00595	0.0152
		Sep-08		< 0.020 U	0.36	< 0.00500 J	0.0208	< 0.00500 J	0.415	< 0.0012 U	0.128	< 0.00004 U	< 0.00500 J	0.00803	0.0189
		Apr-09		< 0.020 U	0.28	< 0.0100 J	0.0135	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0100 J	
		Sep-09		< 0.0500 U	0.38	0.0123	0.00995	< 0.00500 U		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Mar-10			0.18	< 0.00500 U	0.0178	< 0.00500 U		< 0.00500 U		< 0.000200 U		0.00748	
		Oct-10			0.48	< 0.00500 U	0.0147	< 0.00500 U	< 0.200 U	< 0.00500 U	0.156	< 0.000200 U	0.00747 J	0.00716	0.0161
	MW-54A	Apr-08			0.48	0.0154	0.0180	< 0.00050 U	0.488	< 0.00500 J	0.538	< 0.00004 U	0.00537	< 0.0017 U	< 0.00500 J
		Sep-08			0.58	< 0.00500 J	0.0257	< 0.00070 U	0.314	< 0.0012 U	0.541	< 0.00004 U	0.00772	< 0.00500 J	0.00559
		Apr-09			0.42	< 0.0100 J	0.0167	< 0.0012 U		< 0.0100 J				< 0.0050 U	
		Oct-09			0.30										
		Oct-09	FD		0.29										
		Apr-10			0.40	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10			0.32	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	0.467			< 0.0500 U	
	MW-54B	Apr-10		< 0.0500 U	0.33	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
	MW-108	Oct-09		2.55	8.2	< 0.00500 J	0.0109	< 0.00500 J		< 0.00500 U		< 0.000200 J		0.00815	
		Mar-10			1.6	0.00555	0.0479	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Apr-10			5.9	**< 0.0250 U**	0.155	0.0387		0.0361		< 0.000200 U		< 0.0250 U	
		Oct-10			1.8	**< 0.0250 U**	0.0615	< 0.0250 U	< 1.00 U	**< 0.0250 U**	0.0856			< 0.0250 U	
	NCL-31	Mar-10			0.65	0.00731	0.0246	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10			0.56	**< 0.0250 U**	0.0312	< 0.0250 U	< 1.00 U	**< 0.0250 U**	1.16			< 0.0250 U	
	NCL-32	Apr-08			0.17	0.0136	0.207	0.146	10.8	0.0554	1.03	< 0.000200 J	0.0180	< 0.0017 U	0.0418
		Sep-08			0.38	0.0186	0.173	0.0257	3.68	0.0153	1.16	0.000202	0.0138	< 0.0022 U	0.0166
		Sep-08	FD		0.14	0.0191	0.326	0.0993	13.1	0.0705	1.37	< 0.000200 J	0.0246	0.00501	0.0470
		Apr-09			2.1	< 0.0100 J	0.143	0.0442		0.0294		< 0.00004 U		< 0.0050 U	
		Sep-09			0.21	0.00685	0.0136	< 0.00500 U		< 0.00500 J	0.347	< 0.000200 U		< 0.00500 J	
		Mar-10			< 0.050 U	0.0664	1.74	0.593		0.415		< 0.000200 U		0.0125	
		Oct-10			0.48	**< 0.0250 U**	0.0413	< 0.0250 U	< 1.00 U	**< 0.0250 U**	0.149			< 0.0250 U	
	NCL-33	Apr-08			0.49	< 0.00500 J	0.0231	< 0.00500 J	1.45	< 0.00500 J	0.109	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00500 J
		Sep-08			1.4	< 0.00500 J	0.0285	< 0.00070 U	1.38	< 0.0012 U	0.130	< 0.000200 J	< 0.00500 J	< 0.00500 J	< 0.00500 J
		Apr-09			0.52	< 0.0100 J	0.0229	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U	
		Sep-09			0.60	0.0389	1.15	0.383		0.267	1.84	0.000223		0.00667	
		Mar-10			0.64	< 0.00500 U	0.0263	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10			0.57	**< 0.0250 U**	0.0253	< 0.0250 U	4.35	**< 0.0250 U**	0.126			< 0.0250 U	
	NCL-34	Apr-08			2.7	< 0.00500 J	0.605	< 0.00500 J	0.212	< 0.00500 J	0.0675	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00500 J
		Apr-08	FD		1.1	< 0.00500 J	0.774	< 0.00500 J	0.421	< 0.00500 J	0.0822	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00500 J
		Sep-08			2.1	0.00846	0.368	< 0.00500 J	0.354	< 0.00500 J	0.0627	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.0014 U
		Apr-09			0.12	< 0.0100 J	0.608	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U	
		Sep-09			1.7	< 0.00500 J	0.0240	< 0.00500 U		< 0.00500 U	0.127	< 0.000200 U		< 0.00500 U	
		Mar-10			0.95 J	< 0.00500 U	0.370 J	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Mar-10	FD		1.8 J	0.00568	0.0538 J	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10			0.95	**< 0.0250 U**	0.349	< 0.0250 U	< 1.00 U	**< 0.0250 U**	0.0393			< 0.0250 U	
		Oct-10	FD		1.3	< 0.00500 U	0.342	< 0.00500 U	< 0.200 U	< 0.00500 U	0.0339			< 0.00500 U	

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	TPH		Total Metals									
				Analyte:	GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:		0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
				CGWSL Source:		NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	**Dup**													
NCL (continued)	NCL-44	Apr-08			**0.63**	**0.0348**	0.0291	< 0.00500 J	**1.38**	< 0.00500 J	**0.686**	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00500 J	
		Sep-08			**1.4**	**0.0394**	0.0266	< 0.00500 J	**1.37**	< 0.00500 J	**0.712**	< 0.00004 U	0.00740	< 0.0022 U	< 0.0014 U	
		Apr-09			**0.62**	**0.0436**	0.0273	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U		
		Sep-09			**0.66**	< 0.00500 J	0.317	< 0.00500 J		< 0.00500 U	0.0337	< 0.000200 U		< 0.00500 U		
		Mar-10			**0.60**	**0.0440**	0.0298	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U		
		Oct-10			**0.63**	**0.0543 J**	0.0267	< 0.0250 U	**1.40**	**< 0.0250 U**	**0.716**			< 0.0250 U		
	NCL-49	Apr-08			< 0.020 U	< 0.0018 U	0.0143	< 0.00050 U	< 0.025 U	< 0.00020 U	< 0.0010 U	< 0.00004 U	< 0.00500 J	0.0108	0.0110	
		Sep-08			< 0.050 J	< 0.00500 J	0.0113	< 0.00070 U	< 0.10 U	< 0.0012 U	< 0.00500 J	< 0.000200 J	< 0.00500 J	0.00882	0.00938	
		Sep-08	FD		< 0.020 U	< 0.00500 J	0.0110	< 0.00070 U	< 0.10 U	< 0.0012 U	< 0.00090 U	< 0.00004 U	< 0.00500 J	0.0100	0.00988	
		Apr-09			< 0.020 U	< 0.0018 U	0.0117	< 0.0012 U		< 0.0100 J				< 0.0100 J		
		Apr-09	FD		< 0.020 U	< 0.0018 U	0.0115	< 0.0012 U		< 0.0100 J				< 0.0100 J		
		Oct-09			< 0.050 U											
		Apr-10			< 0.050 U	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U		
		Oct-10			< 0.050 U	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	< 0.0500 U			< 0.0500 U		
	RW-17A	Mar-10		< 0.0500 U	0.13	0.00876	0.0224	< 0.00500 U		0.00885		< 0.000200 U		0.00820		
TEL	TEL-1	Apr-08		0.594	**1.9**	< 0.00500 J	0.0131	< 0.00050 U	< 0.200 J	< 0.00500 J	0.136	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00040 U	
		Sep-08		0.513	**2.6**	0.00568	0.0107	< 0.00500 J	< 0.200 J	< 0.0012 U	**0.204**	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.00500 J	
		Apr-09		0.567	**1.7**	< 0.0100 J	0.0125	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U		
		Apr-09	FD	0.580	**3.2**	**0.0107**	0.0132	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U		
		Sep-09		0.400	**2.9**	< 0.00500 J	**1.61**	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U		
		Apr-10		0.210	**1.9**	< 0.00500 U	0.0130	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U		
		Oct-10		0.430	**5.0 J**	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	0.0818			< 0.0250 U		
	TEL-2	Apr-08		5.13	**5.1**	**0.0156**	0.135	< 0.00500 J	< 0.200 J	< 0.00500 J	0.0352	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00500 J	
		Apr-08	FD	4.59	**5.5**	**0.0167**	0.139	< 0.00050 U	< 0.200 J	< 0.00500 J	0.0390	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00500 J	
		Sep-08		8.76	**8.1**	**0.0158**	0.0768	< 0.00500 J	< 0.10 U	< 0.00500 J	0.0315	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.00500 J	
		Apr-09		5.08	**3.3**	**0.0112**	0.0761	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U		
		Sep-09		5.05	**4.3**	0.00662	0.0112	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U		
		Apr-10		5.62	**7.8**	0.00999	0.0753	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U		
		Oct-10		4.67	**5.4 J**	**< 0.0250 U**	0.0452	< 0.0250 U	< 1.00 U	**< 0.0250 U**	< 0.0250 U			< 0.0250 U		
	TEL-3	Apr-08		1.25	**2.2**	0.00528	0.0166	< 0.00050 U	< 0.200 J	< 0.00500 J	0.00741	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00500 J	
		Apr-09		2.04	**2.6**	< 0.0100 J	0.0177	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U		
		Sep-09		0.814	**1.4**	0.00979	0.0547	< 0.00500 U		< 0.00500 J		< 0.000200 U		< 0.00500 U		
		Apr-10		0.556	**2.3 J**	< 0.00500 U	0.0109	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U		
		Apr-10	FD	0.603	**1.3 J**	< 0.00500 U	0.0109	< 0.00500 U		< 0.0100 U		< 0.000200 U		< 0.00500 U		
		Oct-10		0.688	**1.4**	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	< 0.0250 U			< 0.0250 U		
	TEL-4	Apr-08		4.40	**3.3**	**0.0117**	0.0620	0.0253	0.659	< 0.00500 J	**0.800**	< 0.00004 U	0.0319	< 0.0017 U	< 0.00040 U	
		Sep-08		3.17	**2.6**	**0.0135**	0.0352	**0.0502**	0.750	< 0.00500 J	**0.869**	< 0.00004 U	0.0588	< 0.0022 U	< 0.00500 J	
		Apr-09		2.61	**1.8**	**0.0120**	0.0409	**0.0567**		< 0.0100 J		< 0.00004 U		< 0.0050 U		
		Sep-09		1.92	**1.9**	< 0.00500 J	0.0140	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U		
		Apr-10		1.65	**3.6**	0.00810	0.0269	0.00710		< 0.00500 U		< 0.000200 U		< 0.00500 U		
		Oct-10		1.70	**2.0**	**< 0.0250 U**	< 0.0250 U	**0.0648**	< 1.00 U	**< 0.0250 U**	**1.02**			< 0.0250 U		

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

		Analyte Group:		TPH		Total Metals									
		Analyte:		GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
		Units:		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		CGWSL:			0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
		CGWSL Source:			NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	Location	Date	Dup												
EP	MW-1R	Apr-08			< 0.020 U	< 0.00500 J	0.0718	< 0.00500 J	5.31	< 0.00500 J	1.72	< 0.00004 U	0.00508	< 0.00500 J	0.00813
		Sep-08				0.00585	0.0710	< 0.00500 J	5.76	< 0.00500 J	1.81	< 0.00004 U	0.00538	< 0.00500 J	0.00906
		Apr-09			< 0.020 U	< 0.0100 J	0.0250	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U	
		Sep-09			< 0.050 U	0.0185	0.0201	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10			0.98	< 0.0100 U	0.0204	< 0.0100 U		< 0.0100 U		< 0.000200 U		0.0113	
	MW-2A	Apr-08		< 0.0500 J	0.11	0.0353	0.0265	< 0.0025 U	6.18	< 0.0010 U	2.66	< 0.00004 U	< 0.0250 J	< 0.0085 U	< 0.0020 U
		Sep-08		< 0.0500 J	0.18	0.0271	0.0302	< 0.00500 J	2.21	< 0.0012 U	2.64	< 0.00004 U	0.0122	0.00652	< 0.0014 U
		Apr-09		< 0.0500 J	0.099	0.0142	0.0266	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Apr-09		5.78	2.2	0.302	0.0141	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09			0.094	0.0131	0.0199	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10		< 0.0500 U	< 0.050 U	0.0187	0.0236	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		< 0.0500 U	< 0.050 U	**< 0.0250 U**	0.0343	< 0.0250 U	7.90	**< 0.0250 U**	4.00			< 0.0250 U	
		Oct-10	FD	< 0.0500 U	3.6 J	**< 0.0250 UJ**	0.0332	< 0.0250 U	7.45 J	**< 0.0250 U**	3.68 J			< 0.0250 U	
	MW-2B	Apr-10			< 0.050 U	< 0.0100 U	0.0113	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
	MW-3	Apr-08		0.386	1.3	0.0295	0.0184	< 0.00500 J	1.19	< 0.00500 J	1.35	< 0.00004 U	0.00561	< 0.00500 J	< 0.00500 J
		Sep-08		0.410	1.7	0.0317	0.0172	< 0.00500 J	0.997	< 0.0012 U	1.65	< 0.00004 U	0.00786	< 0.00500 J	< 0.0014 U
		Apr-09		0.270	1.0	0.0300	0.0145	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		0.447	1.3	0.0413	0.0152	< 0.00500 J		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Apr-10		0.201	1.2	0.0278	0.0130	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		0.526	1.4	0.0524	0.0164	< 0.00500 U	1.34	< 0.0100 U	1.47			< 0.00500 U	
	MW-4A	Apr-08		0.315	0.79	0.0782	0.0114	< 0.00050 U	2.15	< 0.00020 U	1.93	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00040 U
		Apr-08	FD	0.310	0.74	0.0759	0.0111	< 0.00050 U	2.04	< 0.00020 U	1.94	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00040 U
		Sep-08		0.446	0.73	0.114	0.0154	< 0.00500 J	2.16	< 0.0012 U	1.80	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.0014 U
		Apr-09		0.328	0.79	0.0930	0.0146	< 0.0012 U		< 0.0100 J				< 0.0050 U	
		Sep-09		0.339	0.97	< 0.00500 J	0.0112	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10		0.236	< 0.050 U	0.0748	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Apr-10	FD	0.268	1.1	0.0812	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10		0.436	0.56 J	0.113 J	0.0137	< 0.00500 U	2.79 J	< 0.00500 U	2.13 J			< 0.00500 U	
	MW-4B	Apr-10			0.57	0.0730	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
	MW-5A	Apr-08		7.12	5.3	0.181	0.422	0.0331	43.9	**< 0.0250 J**	3.36	< 0.00004 U	0.0329	< 0.0085 U	0.0642
		Sep-08		5.95	4.2	0.219	0.233	0.0232	30.2	0.0126	1.66	< 0.00004 U	0.0248	0.00847	0.0399
		Sep-09		5.70	4.6	0.235	0.0146	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 J	
		Sep-09	FD	5.54	4.9	0.00873	0.0172	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 J	
		Apr-10		4.34	3.4	0.206	0.0130	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		4.67	< 0.050 U	0.253	< 0.0250 U	< 0.0250 U	13.7	**< 0.0250 U**	0.980			< 0.0250 U	
	MW-5B	Apr-10			6.2	0.208	< 0.0100 U	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
	MW-6A	Apr-08		0.443	3.1	0.0146	0.0158	< 0.00050 U	0.706	< 0.00500 J	0.227	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00040 U
		Sep-08		0.379	1.4	0.0176	0.0158	< 0.00500 J	0.918	< 0.0012 U	0.236	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00500 J
		Apr-09		0.410	1.5	0.0141	0.0142	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		0.264	1.5	0.0112	0.0126	< 0.00500 J		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Apr-10		0.139	1.1	0.0102	0.0140	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
	MW-6B	Apr-10			0.084	0.0152	0.0168	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	

Table 4 - Summary of Groundwater Analytical Data
2010 Groundwater Report
Navajo Refinery, Artesia, New Mexico

		Analyte Group:		TPH		Total Metals									
		Analyte:		GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
		Units:		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		CGWSL:			0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
		CGWSL Source:			NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	**Dup**												
EP (continued)	MW-7A	Apr-08		0.747	**0.78**	**0.0363**	0.0176	< 0.00050 U	**6.67**	< 0.00020 U	**0.437**	< 0.00004 U	0.0123	< 0.00500 J	< 0.00040 U
		Sep-08		0.736	**1.0**	**0.0450**	0.0617	0.00797	**9.59**	< 0.00500 J	**0.440**	< 0.00004 U	0.0157	< 0.00500 J	< 0.00500 J
		Apr-09		0.602	**0.51**	**0.0404**	0.0157	< 0.0012 U		< 0.0100 J		< 0.000200 J		< 0.0050 U	
		Sep-09		0.510	**0.84**	**0.0169**	0.0164	< 0.0100 U		< 0.0100 J		< 0.000200 U		< 0.0100 U	
		Apr-10		0.462	**0.52**	**0.0335**	0.0164	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		0.483	**0.39**	**0.0331**	0.0164	< 0.0100 U	**5.72**	< 0.0100 U	**0.402**			< 0.0100 U	
	MW-7B	Apr-10			0.11 J	**0.0136**	0.0129	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
	MW-10	Apr-08		1.72	**0.73**	**0.0226**	0.0173	< 0.00500 J	0.746	< 0.00500 J	**1.83**	< 0.00004 U	0.0187	< 0.0017 U	0.00647
		Sep-08		1.62	**1.0**	**0.0239**	0.0130	< 0.00500 J	0.522	< 0.00500 J	**2.06**	< 0.00004 U	0.0229	< 0.00500 J	0.00590
		Apr-09		1.51	**0.97**	**0.0250**	0.0355	< 0.0100 J		< 0.0100 J				< 0.0050 U	
		Sep-09		1.23	**1.1**	**0.132**	0.0165	< 0.00500 J		< 0.00500 U		< 0.000200 U		< 0.00500 J	
		Apr-10		1.26	0.14 J	**0.0201**	< 0.0250 U	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		1.22	**0.50**	**0.0231**	0.0114	< 0.00500 U	< 0.200 U	< 0.0100 U	**2.50**			< 0.00500 U	
	MW-11A	Apr-08		< 0.020 U	< 0.020 U	< 0.0090 U	0.0261	< 0.0025 U	**11.6**	< 0.0010 U	**1.56**	< 0.00004 U	< 0.0015 U	< 0.0085 U	< 0.0020 U
		Sep-08		< 0.020 U	< 0.020 U	0.00914	0.0317	< 0.00070 U	**10.6**	< 0.0012 U	**1.65**	< 0.00004 U	< 0.00500 J	0.00527	< 0.00500 J
		Apr-09		< 0.0500 J	< 0.020 U	< 0.0100 J	0.0314	< 0.0012 U		< 0.0100 J		< 0.000200 J		< 0.0050 U	
		Sep-09		< 0.0500 U	< 0.050 U	**0.262**	0.0151	< 0.00500 J		< 0.00500 U		< 0.000200 U		< 0.00500 J	
		Apr-10		< 0.0500 U	< 0.050 U	**< 0.0250 U**	0.0260	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Apr-10	FD	< 0.0500 U	< 0.050 UJ	**< 0.0250 U**	0.0285	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
	MW-11B	Apr-10			< 0.050 UJ	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
	MW-15	Apr-08		0.640	**0.50**	**0.0200**	0.0248	< 0.00050 U	< 0.200 J	< 0.00500 J	**1.55**	< 0.00004 U	0.00969	< 0.00500 J	0.00648
		Sep-08		0.559	**0.69**	**0.0312**	0.0175	< 0.00500 J	< 0.200 J	< 0.0012 U	**1.57**	< 0.00004 U	0.0102	< 0.0022 U	< 0.00500 J
		Apr-09		0.515	**0.67**	**0.0958**	0.0321	< 0.0012 U		< 0.00080 U				< 0.0050 U	
		Sep-09		0.108	0.16	**0.0197**	0.00999	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10		0.393	0.070	**0.0433**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
	MW-18A	Apr-08			**0.23**	< 0.0090 U	< 0.0250 J	< 0.0025 U	< 0.12 U	< 0.0010 U	**2.88**	< 0.00004 U	< 0.0250 J	< 0.0085 U	< 0.0020 U
		Sep-08			**0.30**	**0.0270**	0.0160	< 0.00500 J	0.471	< 0.0012 U	**1.65**	< 0.00004 U	0.0102	0.00735	< 0.0014 U
		Apr-09			**0.24**	< 0.0100 J	0.0183	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U	
		Sep-09			**0.24**	< 0.0100 J	0.0319	< 0.0100 J		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Apr-10			< 0.050 U	**0.0144 UB**	0.0213	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10			0.19	< 0.0100 U	0.0218	< 0.0100 U	**2.75**	**< 0.0250 U**	**2.11**	< 0.000200 U	0.0208	< 0.0100 U	< 0.0100 U
	MW-18B	Apr-10			< 0.050 U	**0.0126**	0.0131	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
	MW-22A	Apr-08			**3.1**	**0.0618**	0.0214	< 0.00050 U	**5.22**	< 0.00500 J	**3.97**	< 0.00004 U	0.0185	< 0.00500 J	< 0.00040 U
		Sep-08		9.19	**3.1**	**0.0515**	0.0157	< 0.00500 J	**5.24**	< 0.0012 U	**5.18**	< 0.00004 U	0.0220	< 0.00500 J	< 0.0014 U
		Apr-09		6.87	**2.8**	**0.0561**	0.0162	< 0.0012 U		< 0.0100 J				< 0.0050 U	
		Sep-09		6.01	**3.0**	< 0.00500 J	0.0200	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10		6.18	**2.4**	**0.0514**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Apr-10	FD	6.18	**3.1**	**0.0518**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10		6.21	**1.1**	**0.0600**	0.0158	< 0.00500 U	**4.04**	< 0.00500 U	**5.30 J**			< 0.00500 U	
	MW-22B	Apr-10			**1.3 J**	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	

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2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

		Analyte Group:		TPH		Total Metals									
		Analyte:		GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
		Units:		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		CGWSL:			0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
		CGWSL Source:			NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	**Dup**												
EP (continued)	MW-70	Apr-08		1.47	0.29	0.0162	0.0145	< 0.00050 U	2.37	< 0.00020 U	0.242	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00040 U
		Sep-08		1.36	0.31	0.0229	0.0136	< 0.00500 J	2.63	< 0.0012 U	0.211	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.0014 U
		Sep-08	FD	1.35	0.36	0.0218	0.0138	< 0.00500 J	2.62	< 0.0012 U	0.205	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.0014 U
		Apr-09		1.42	0.80	0.0213	0.0148	< 0.0012 U		< 0.0100 J		< 0.000200 J		< 0.0050 U	
		Sep-09		1.21	0.28	0.232	0.0143	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Apr-10		1.18	< 0.062 U	0.0237	0.0164	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		1.36	0.32	0.0202	0.0164	< 0.0100 U	3.29	< 0.0100 U	0.279			< 0.0100 U	
	MW-72	Apr-08		0.433	0.59	0.157	0.0248	< 0.0010 U	28.1	< 0.00040 U	4.23	< 0.00004 U	< 0.0100 J	< 0.0100 J	< 0.00080 U
		Sep-08		0.442		0.153	0.0159	< 0.00070 U	28.8	< 0.0012 U	5.77	< 0.00004 U	0.0111	0.00724	< 0.0014 U
		Mar-09		110	0.56	0.0909	0.0147	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U	
		Sep-09		0.299	0.49	0.125	0.0180	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 J	
		Apr-10		0.252	0.42	0.0807	0.0139	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		0.322	0.16	0.113	< 0.0250 U	< 0.0250 U	25.5	**< 0.0250 U**	4.57			< 0.0250 U	
	MW-73	Apr-08		0.992	1.1	0.100	0.0384	< 0.00500 J	12.6	< 0.00500 J	2.85	< 0.00004 U	0.0215	< 0.00500 J	< 0.00500 J
		Sep-08		1.11		0.106	0.0104	< 0.00070 U	9.88	< 0.00500 J	2.85	< 0.00004 U	0.0213	0.0105	< 0.0014 U
		Mar-09		12.0	0.98	0.107	0.0116	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U	
		Sep-09		0.226	1.3	0.112	0.0125	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 J	
		Apr-10		0.545	1.2	0.110	< 0.0100 U	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		1.03	0.66	0.111	< 0.0250 U	< 0.0250 U	6.64	**< 0.0250 U**	3.02			< 0.0250 U	
	MW-74	Apr-08		2.01	8.9	0.196	0.0281	< 0.00500 J	14.5	< 0.00500 J	2.30	< 0.00004 U	0.0127	0.00734	< 0.00500 J
		Sep-08		2.20		0.203	0.0144	< 0.00070 U	9.25	< 0.0012 U	2.34	< 0.00004 U	0.0134	0.0109	< 0.0014 U
		Mar-09		6.87	6.0	0.127	0.0141	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U	
		Sep-09		1.57	8.4	0.102	0.0163	< 0.00500 J		< 0.00500 J		< 0.000200 U		0.0187	
		Apr-10		1.35	9.9	0.0935	0.0132	< 0.0100 U		< 0.0100 U		< 0.000200 U		0.0463	
		Apr-10	FD	1.27	10	0.0905	0.0117	< 0.0100 U		< 0.0100 U		< 0.000200 U		0.0426	
		Oct-10		1.45	11 J	0.0820	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	2.24			0.0540	
	MW-75	Apr-08		4.85	9.0	0.436	0.0240	< 0.00500 J	4.34	< 0.00500 J	1.13	< 0.00004 U	0.0234	< 0.00500 J	0.00870
		Sep-08		5.04		0.391	0.0214	< 0.00500 J	3.58	< 0.0012 U	1.06	< 0.00004 U	0.0212	< 0.00500 J	0.00808
		Mar-09		5.59	5.8	0.337	0.0177	< 0.0100 J		< 0.00080 U		< 0.00004 U		< 0.0050 U	
		Sep-09		3.84	6.2	0.365	0.0140	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 J	
		Sep-09	FD	3.76	6.0	0.374	0.0149	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 J	
		Apr-10		2.56	6.3	0.294 J	0.0164	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		2.74	3.0 J	0.362	0.0141	< 0.0100 U	2.97	< 0.0100 U	1.04			< 0.0100 U	
	MW-76	Apr-08		2.40	8.1	0.0644	0.0195	< 0.00500 J	2.73	< 0.00500 J	0.523	< 0.00004 U	0.00955	< 0.00500 J	< 0.00500 J
		Sep-08		2.78		0.0584	0.0140	< 0.00500 J	2.73	< 0.0012 U	0.538	< 0.00004 U	0.00922	< 0.00500 J	< 0.0014 U
		Mar-09		1.44	4.2	0.0627	0.0136	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		1.99	6.5	0.0723	0.0135	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 J	
		Apr-10		0.780	3.8	0.0774	0.0137	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		0.701	2.6	0.0737	0.0148	< 0.00500 U	2.46	< 0.0100 U	0.597 J			< 0.00500 U	
	MW-77	Apr-08		1.98	4.7	0.112	0.0236	< 0.00500 J	4.13	< 0.00500 J	1.02	< 0.00004 U	0.0144	0.00608	< 0.00500 J
		Sep-08		1.68		0.107	0.0339	0.00582	5.27	< 0.0012 U	0.846	< 0.00004 U	0.0193	0.00932	0.00714
		Mar-09		2.14	5.4	0.0931	0.0131	< 0.0100 J		< 0.00080 U		< 0.00004 U		< 0.0050 U	
		Sep-09		1.53	4.8	0.0856	0.0129	< 0.00500 J		< 0.00500 J		< 0.000200 U		0.00574	
		Apr-10		0.986	6.1	0.0775	0.0128	< 0.0100 U		< 0.0100 U		< 0.000200 U		0.0120	
		Oct-10		1.18	5.8 J	0.0769	0.0138	< 0.00500 U	4.30	**< 0.0250 U**	0.637 J	< 0.000200 U	0.0176	0.00667	< 0.00500 U

Table 4 - Summary of Groundwater Analytical Data

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Navajo Refinery, Artesia, New Mexico

			Analyte Group:	**TPH**		**Total Metals**								
			Analyte:	**GRO**	**DRO**	**Arsenic**	**Barium**	**Chromium**	**Iron**	**Lead**	**Manganese**	**Mercury**	**Nickel**	**Selenium**	**Vanadium**
			Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
			CGWSL:		0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
			CGWSL Source:		NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	**Dup**												
EP (continued)	MW-78	Apr-08		1.59	4.4	0.0548	0.0300	0.00740	2.56	< 0.00500 J	0.769	< 0.00004 U	0.0126	< 0.00500 J	< 0.00500 J
		Sep-08		1.16		0.0547	0.0303	0.00569	5.36	< 0.0012 U	0.572	< 0.00004 U	0.0119	< 0.00500 J	< 0.00500 J
		Mar-09		0.726	7.2	0.0267	0.0211	0.0242		< 0.00080 U		< 0.00004 U		< 0.0050 U	
		Sep-09		0.628	5.7	0.0268	0.0328	0.0421		< 0.00500 J		< 0.000200 U		0.00693	
		Apr-10		0.185	5.7	0.0155 UB	0.0306	0.0458		< 0.0100 U		< 0.000200 U		0.0200	
	MW-79	Apr-08		0.292	0.58	0.0456	0.0311	< 0.00500 J	3.54	< 0.00500 J	2.44	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00500 J
		Sep-08		0.312		0.0404	0.0191	< 0.00070 U	1.60	< 0.0012 U	3.40	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00500 J
		Mar-09		0.235	0.54	0.0207	0.0186	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Mar-09	FD	0.229	0.57	0.0230	0.0175	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0100 J	
		Sep-09		0.183	0.51	0.0165	0.0182	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 J	
		Apr-10		0.156	0.34	0.0148	0.0184	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		0.116	0.13	0.0194	0.0183	< 0.0100 U	3.03	< 0.0100 U	6.05			< 0.0100 U	
	MW-80	Apr-08		0.0663	0.12	0.0440	0.0260	< 0.00050 U	14.6	< 0.00500 J	2.11	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00500 J
		Mar-09		0.0528	0.11	0.0111	0.0157	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		0.0870	0.15	0.0146	0.0173	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10		< 0.0500 U	< 0.050 U	< 0.0100 U	0.0157	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
	MW-81	Apr-08		0.253	0.46	0.0240	0.0273	< 0.00500 J	1.01	< 0.00500 J	3.85	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00500 J
		Sep-08		0.159		0.0197	0.0194	< 0.00070 U	0.410	< 0.0012 U	4.01	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00500 J
		Mar-09		0.138	0.59	0.0164	0.0185	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		0.135	0.34	0.0114	0.0186	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10		0.0892	0.54	0.0153	0.0158	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
	MW-82	Apr-08		1.85	2.8	0.199	0.0464	0.00500	3.18	< 0.00500 J	1.42	< 0.00004 U	0.0212	0.00520	0.00662
		Apr-08	FD	5.51	4.8	0.141	0.132	0.0154	7.14	< 0.00500 J	0.458	< 0.00004 U	0.0260	< 0.00500 J	0.00849
		Sep-08		1.78		0.196	0.0250	< 0.00500 J	1.95	< 0.0012 U	1.48	< 0.00004 U	0.0279	0.0104	< 0.00500 J
		Sep-08	FD	1.97		0.197	0.0245	< 0.00500 J	1.94	< 0.0012 U	1.54	< 0.00004 U	0.0271	0.00698	0.00513
		Mar-09		1.66	2.6	0.198	0.0255	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		1.61	3.0	0.184	0.0214	< 0.00500 J		< 0.00500 J		< 0.000200 U		0.00534	
		Apr-10		1.22	4.2	0.211	0.0379	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
	MW-83	Apr-08		5.33	4.8	0.156	0.0864	0.00976	6.41	< 0.00500 J	0.434	< 0.00004 U	0.0279	< 0.00500 J	0.00648
		Sep-08		5.04		0.130	0.0150	< 0.00500 J	2.69	< 0.0012 U	0.303	< 0.00004 U	0.0201	0.00543	< 0.00500 J
		Mar-09		5.32	7.2	0.133	0.0159	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		2.22	7.3	0.0690	0.0185	< 0.00500 J		< 0.00500 J		< 0.000200 J		0.00547	
		Apr-10		2.18	5.5	0.0825	0.0162	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		0.950	7.0 J	0.0308	0.0270	< 0.00500 U	1.25	< 0.0100 U	0.465			0.0125	
	MW-84	Apr-08		2.36	8.5	0.113	0.0330	< 0.00500 J	4.85	< 0.00500 J	1.98	< 0.00004 U	0.0598	0.00602	0.00673
		Sep-08		2.07		0.100	0.0182	0.00633	3.21	< 0.00500 J	2.79	< 0.00004 U	0.0616	0.0103	0.0112
		Mar-09		33.9	11	0.111	0.0162	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		1.36	10	0.143	0.0173	< 0.00500 J		< 0.00500 J		< 0.000200 U		0.00769	
		Apr-10		0.813	9.3	0.0868	0.0161	< 0.0100 U		< 0.0100 U		< 0.000200 U		0.0112	
		Oct-10		1.41	7.5 J	0.157	0.0147	< 0.00500 U	4.82	**< 0.0250 U**	3.90			0.00809	

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2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	TPH		Total Metals									
				Analyte:	GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:		0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
				CGWSL Source:		NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	**Dup**													
EP (continued)	MW-87	Apr-09		0.0518	**0.27**	**0.0125**	0.0199	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		0.0909	**0.25**	**0.0325**	0.0146	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10		< 0.0500 U	< 0.050 U	**0.0159**	0.0188	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Apr-10	FD	< 0.0500 U	< 0.050 U	**0.0149**	0.0187	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		0.0764	0.12	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	**1.62 J**			< 0.0250 U	
		Oct-10	FD	0.0883	0.12	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 UJ**	**1.68 J**			< 0.0250 U	
	MW-88	Apr-08		0.479	**0.47**	**0.0134**	0.0234	< 0.00500 J	0.724	< 0.00500 J	**0.458**	< 0.00004 U	0.00830	< 0.0017 U	0.0122
		Sep-08		0.420	**0.59**	**0.0142**	0.0352	< 0.00500 J	**1.86**	< 0.00500 J	**0.413**	< 0.00004 U	0.0110	< 0.00500 J	0.0173
		Apr-09		0.298	**0.40**	**0.0140**	< 0.0100 J	< 0.0012 U		< 0.0100 J				< 0.0050 U	
		Apr-09	FD	0.301	**0.45**	**0.0103**	< 0.0100 J	< 0.0012 U		< 0.0100 J				< 0.0050 U	
		Sep-09		0.242	**0.54**	**0.0118**	0.00980	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Sep-09	FD	0.226	**0.43**	**0.157**	0.0127	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10		0.212	**0.39**	**0.0110**	0.0102	< 0.00500 U		**< 0.0250 U**		< 0.000200 U		< 0.00500 U	
		Oct-10		0.158	< 0.050 U	**0.0123**	0.0101	< 0.0100 U	< 0.400 U	< 0.0100 U	**0.555**			< 0.0100 U	
	OCD-1R	Apr-08		0.111	0.16	**0.0124**	0.0249	< 0.0010 U	**6.10**	< 0.0100 J	**2.92**	< 0.00004 U	< 0.0100 J	0.0102	< 0.0100 J
		Sep-08		0.0514	0.15	**0.0161**	0.0240	< 0.00500 J	**4.58**	< 0.0012 U	**2.95**	< 0.00004 U	0.0100	0.00613	< 0.00500 J
		Apr-09		0.0552	0.054	< 0.0100 J	0.0193	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Apr-10		< 0.0500 U	0.083 J	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10		< 0.0500 U	0.066	**0.0103**	0.0228	< 0.0100 U	**4.81**	< 0.0100 U	**2.78**			< 0.0100 U	
	OCD-2A	Apr-08		< 0.020 U	< 0.050 J	< 0.0100 J	0.0295	< 0.0100 J	**5.53**	< 0.0100 J	**0.986**	< 0.00004 U	< 0.0100 J	< 0.0034 U	< 0.0100 J
		Sep-08		< 0.020 U	< 0.050 J	0.00662	0.0223	< 0.00070 U	**3.35**	< 0.0012 U	**1.37**	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00500 J
		Mar-09	FD	< 0.020 U	< 0.020 U	< 0.0100 J	0.0257	< 0.0012 U		< 0.00080 U		< 0.00004 U		0.0118	
		Apr-09		< 0.020 U	< 0.020 U	< 0.0100 J	0.0251	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U	
		Sep-09		< 0.0500 U	< 0.050 U	**0.0153**	0.0210	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10		< 0.0500 U	< 0.050 UJ	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10		< 0.0500 U	< 0.050 U	< 0.0100 U	0.0248	< 0.0100 U	**3.99**	< 0.0100 U	**1.50**			< 0.0100 U	
	OCD-2B	Apr-10			< 0.050 UJ	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
	OCD-3	Apr-08		< 0.020 U	< 0.020 U	< 0.00500 J	0.0245	< 0.00050 U	0.850	< 0.00500 J	0.185	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00500 J
		Apr-08	FD	< 0.020 U	< 0.020 U	< 0.0036 U	0.0265	< 0.0010 U	**1.78**	< 0.00040 U	**0.234**	< 0.00004 U	< 0.00060 U	< 0.0034 U	< 0.00080 U
		Sep-08		< 0.020 U	< 0.020 U	0.00705	0.0241	< 0.00070 U	**1.36**	< 0.0012 U	0.116	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00500 J
		Apr-09		< 0.020 U	< 0.020 U	< 0.0100 J	0.0223	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0100 J	
		Sep-09		< 0.0500 U	< 0.050 U	< 0.00500 J	0.0266	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Apr-10		< 0.0500 U	< 0.050 UJ	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10		< 0.0500 U	< 0.050 U	< 0.0100 U	0.0193	< 0.0100 U	**3.65**	< 0.0100 U	**0.296**			< 0.0100 U	
	OCD-4	Apr-08		< 0.020 U	< 0.020 U	< 0.0090 U	< 0.0250 J	< 0.0025 U	**4.32**	< 0.0010 U	**0.225**	< 0.00004 U	< 0.0015 U	< 0.0085 U	< 0.0020 U
		Sep-08		< 0.020 U	< 0.020 U	0.00811	0.0245	< 0.00070 U	**3.72**	< 0.0012 U	**0.230**	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00500 J
		Apr-09		< 0.020 U	< 0.020 U	< 0.0100 J	0.0231	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		< 0.0500 U	< 0.050 U	< 0.00500 J	0.0214	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Apr-10		< 0.0500 U	< 0.050 UJ	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10		< 0.0500 U	< 0.050 U	**< 0.0250 U**	0.0263	< 0.0250 U	**5.05**	**< 0.0250 U**	**0.274**			< 0.0250 U	

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	TPH		Total Metals									
				Analyte:	GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:		0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
				CGWSL Source:		NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	Location	Date	Dup													
EP (continued)	OCD-5	Apr-08		0.136	0.10	< 0.0090 U	< 0.0250 J	< 0.0025 U	**3.54**	< 0.0010 U	**0.279**	< 0.00004 U	< 0.0015 U	< 0.0085 U	< 0.0020 U
		Sep-08		0.498	0.12	**0.0137**	0.0243	< 0.00070 U	**3.22**	< 0.0012 U	**0.288**	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00500 J
		Apr-09		0.263	**0.22**	**0.0115**	0.0238	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		0.319	**0.21**	< 0.0100 J	0.0222	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Apr-10		0.162	0.094 J	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10		< 0.0500 U	< 0.050 U	**< 0.0250 U**	0.0265	< 0.0250 U	**3.57**	**< 0.0250 U**	**0.334**			< 0.0250 U	
	OCD-6	Apr-08		0.635	**1.1**	**0.0474**	0.0139	< 0.0010 U	**8.70**	< 0.00040 U	**2.08**	< 0.00004 U	< 0.0100 J	< 0.0034 U	< 0.00080 U
		Sep-08		0.636	**1.1**	**0.0501**	0.0172	< 0.00500 J	**9.36**	< 0.0012 U	**1.91**	< 0.00004 U	0.00927	0.00827	< 0.0014 U
		Apr-09		0.527	**0.83**	**0.0456**	0.0168	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		0.486	**0.89**	**0.0104**	0.0194	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Apr-10		0.307	**0.77**	**0.0299**	0.0167	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		0.536	**0.75**	**0.0469**	< 0.0250 U	< 0.0250 U	**11.6**	**< 0.0250 U**	**2.24**			< 0.0250 U	
	OCD-7A	Apr-08		1.71	**2.6**	**0.293**	0.0152	< 0.0010 U	**10.0**	< 0.0100 J	**3.53**	< 0.00004 U	0.0103	< 0.0034 U	< 0.00080 U
		Sep-08		1.84	**2.2**	**0.334**	0.0220	< 0.00500 J	**12.2**	< 0.0012 U	**3.95**	< 0.00004 U	0.0132	0.00994	< 0.00500 J
		Apr-09		1.35	**1.7**	**0.318**	0.0162	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		1.15	**1.7**	**0.236**	0.0137	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Sep-09	FD	1.14	**1.5**	**0.0436**	0.0170	< 0.00500 J		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Apr-10		1.01	**2.2**	**0.254**	0.0151	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		1.28	**1.4**	**0.270**	< 0.0250 U	< 0.0250 U	**10.8**	**< 0.0250 U**	**3.28**			< 0.0250 U	
	OCD-7B	Apr-10			< 0.050 U	< 0.0100 U	0.0302	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Apr-10	FD		< 0.050 U	< 0.0100 U	0.0319	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
	OCD-8A	Apr-08		1.21	**1.6**	**0.119**	0.0293	< 0.0010 U	**10.3**	< 0.00040 U	**3.70**	< 0.00004 U	0.0232	< 0.0034 U	< 0.00080 U
		Sep-08		1.10	**1.6**	**0.138**	0.0378	< 0.00500 J	**4.80**	< 0.00500 J	**3.09**	< 0.00004 U	0.0342	0.00573	0.0123
		Sep-08	FD	1.15	**1.9**	**0.170**	0.0652	0.00712	**7.83**	< 0.00500 J	**2.99**	< 0.00004 U	0.0319	0.00789	0.0118
		Apr-09		1.07	**0.93**	**0.105**	0.0140	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		0.757	**1.6**	< 0.0100 J	0.0215	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Apr-10		0.826	**1.2**	**0.110**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10		1.14	**1.3**	**0.135**	< 0.0250 U	< 0.0250 U	**10.7**	**< 0.0250 U**	**3.89**	< 0.000200 U	0.0363	< 0.0250 U	< 0.0250 U
	OCD-8B	Apr-10			**0.35 J**	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
TMD	MW-8	Apr-08			< 0.020 U	**0.0876**	0.0192	**4.47**	**16.7**	0.00593	**0.332**	< 0.00004 U	**0.223**	0.0204	**0.270**
		Sep-08			< 0.020 U	**0.0181**	0.0139	**0.438**	**2.06**	< 0.00500 J	**0.346**	< 0.00004 U	0.0201	0.00919	0.0691
		Apr-09			< 0.020 U	< 0.0100 J	0.0141	0.0137		< 0.00080 U		< 0.00004 U		0.0139	
		Oct-09			< 0.050 U										
		Apr-10			< 0.050 U	**< 0.0250 U**	< 0.0250 U	0.0462		**< 0.0250 U**		< 0.000200 U		0.0280	
		Oct-10		< 0.0500 U	< 0.050 U	< 0.0100 U	0.0154	**0.0521**	< 0.400 U	< 0.0100 U	**0.661**			0.0278	
	MW-16	Apr-08			0.058	0.00633	0.0212	< 0.00500 J	0.541	< 0.00500 J	**1.76**	< 0.00004 U	0.0183	< 0.0017 U	< 0.00500 J
		Sep-08				**0.0209**	0.0230	< 0.00500 J	**6.78**	< 0.00500 J	**3.01**	< 0.00004 U	0.0175	< 0.0022 U	0.00743
		Apr-09			< 0.020 U	< 0.0100 J	0.0188	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U	
		Apr-09	FD		< 0.050 J	< 0.0100 J	0.0204	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09			< 0.050 J	0.00711	0.0203	< 0.00500 U		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10			< 0.050 U	< 0.0100 U	0.0164	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	

Table 4 - Summary of Groundwater Analytical Data
2010 Groundwater Report
Navajo Refinery, Artesia, New Mexico

		Analyte Group:		TPH		Total Metals									
		Analyte:		GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
		Units:		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		CGWSL:			0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
		CGWSL Source:			NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	Location	Date	Dup												
TMD (continued)	MW-20	Apr-08			< 0.020 U	0.00814	0.00853	< 0.00050 U	< 0.025 U	< 0.00020 U	0.149	< 0.00004 U	< 0.00500 J	0.0155	0.0501
		Sep-08			< 0.020 U	0.00901	0.00922	< 0.00500 J	< 0.200 J	< 0.00500 J	**0.229**	< 0.00004 U	0.00701	0.0164	0.0501
		Apr-09			< 0.020 U	< 0.0100 J	< 0.0100 J	< 0.0012 U		< 0.00080 U		< 0.00004 U		0.0157	
		Oct-09			< 0.050 U										
		Apr-10			< 0.050 U	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
	MW-21	Apr-08			< 0.020 U	0.00571	0.00910	< 0.00500 J	< 0.025 U	< 0.00020 U	**0.207**	< 0.00004 U	0.00763	0.0179	0.0392
		Sep-08			< 0.020 U	0.00794	0.00953	< 0.00500 J	< 0.200 J	< 0.0012 U	**0.391**	< 0.00004 U	0.00958	0.0240	0.0406
		Apr-09			< 0.020 U	< 0.0100 J	< 0.0100 J	< 0.0012 U		< 0.00080 U		< 0.00004 U		0.0261	
		Oct-09			< 0.050 U										
		Apr-10			< 0.050 U	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		0.0399	
		Oct-10		< 0.0500 U	< 0.050 U	< 0.0100 U	< 0.0100 U	< 0.0100 U	< 0.400 U	< 0.0100 U	**0.790**			0.0246 J	
	MW-25	Apr-08			< 0.020 U	< 0.00500 J	0.0133	< 0.00050 U	< 0.200 J	< 0.00500 J	**1.11**	< 0.00004 U	< 0.00500 J	< 0.00500 J	0.0107
		Sep-08			< 0.020 U	< 0.00500 J	0.0102	< 0.00070 U	< 0.10 U	< 0.0012 U	0.100	< 0.00004 U	< 0.00500 J	< 0.00500 J	0.00867
		Apr-09			< 0.020 U	< 0.0100 J	0.0103	< 0.0100 J		< 0.00080 U				0.0232	
		Sep-09			< 0.050 U	**0.0505**	0.0154	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10			< 0.050 U	< 0.0100 U	0.0139	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
	MW-26	Apr-08			< 0.020 U	< 0.00500 J	0.00807	< 0.00050 U	< 0.025 U	< 0.00020 U	**0.333**	< 0.00004 U	0.00770	< 0.00500 J	0.0123
		Sep-08				0.00567	0.00761	< 0.00070 U	< 0.10 U	< 0.0012 U	**0.278**	< 0.00004 U	0.00603	0.00743	0.0132
		Apr-09			< 0.020 U	< 0.0100 J	< 0.0100 J	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0100 J	
		Sep-09			< 0.050 U	< 0.00500 J	0.00818	< 0.00500 U		< 0.00500 J		< 0.000200 U		0.00535	
		Apr-10			**0.62**	< 0.0100 U	< 0.0100 U	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
	MW-27	Apr-08													
		Sep-08													
		Apr-09			< 0.020 U	< 0.0100 J	0.0149	< 0.0012 U		< 0.00080 U		< 0.00004 U		0.0118	
		Sep-09			< 0.050 U	< 0.00500 J	0.0156	< 0.00500 J		< 0.00500 J		< 0.000200 U		0.0135	
		Apr-10			< 0.050 U	< 0.0100 U	0.0158	< 0.0100 U		< 0.0100 U		< 0.000200 U		0.0116	
	MW-68	Apr-08			< 0.020 U	< 0.00500 J	0.0299	< 0.00500 J	**1.44**	< 0.00500 J	0.0449	< 0.00004 U	< 0.00500 J	0.00714	0.0254
		Sep-08			< 0.020 U	< 0.00500 J	0.0126	< 0.00500 J	< 0.10 U	< 0.0012 U	< 0.00500 J	< 0.00004 U	< 0.00500 J	0.0216	0.0138
		Apr-09			< 0.020 U	< 0.0100 J	0.0122	< 0.0012 U		< 0.00080 U		< 0.00004 U		0.0163	
		Sep-09			< 0.050 U	< 0.00500 J	0.0166	< 0.00500 J		< 0.00500 U		< 0.000200 U		0.0121	
		Apr-10			< 0.050 U	< 0.0100 U	0.0127	< 0.0100 U		< 0.0100 U		< 0.000200 U		0.0127	
	MW-71	Apr-10			< 0.050 U	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		0.0311	
		Oct-10			< 0.050 U	< 0.0100 U	< 0.0100 U	< 0.0100 U	< 0.400 U	< 0.0100 U	< 0.0100 U	< 0.000200 U	< 0.0100 U	0.0330	0.0234
	MW-89	Apr-08			**0.27**	**0.0209**	0.0177	< 0.00500 J	**2.55**	< 0.00500 J	**0.951**	< 0.00004 U	0.00526	< 0.0017 U	< 0.00500 J
		Sep-08				**0.0393**	0.166	0.0142	**13.9**	0.0106	**1.09**	< 0.00004 U	0.0120	< 0.00500 J	0.0271
		Sep-08		0.112		**0.0192**	0.0161	< 0.00070 U	**4.28**	< 0.0012 U	**2.12**	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.0014 U
		Apr-09			0.14	**0.0197**	0.0131	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U	
		Sep-09			0.084	**0.0101**	0.0157	< 0.00500 J		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Apr-10			< 0.050 U	< 0.0100 U	0.0133	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

		Analyte Group:		TPH		Total Metals									
		Analyte:		GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
		Units:		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		CGWSL:			0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
		CGWSL Source:			NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	**Dup**												
TMD (continued)	NP-1	Apr-08													
		Sep-08													
		Apr-09													
		Sep-09				**0.0139**	0.612	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10													
		Oct-10													
	NP-6	Apr-08			< 0.020 U	0.00792	0.0251	0.00927	0.962	< 0.00500 J	0.0214	< 0.000200 J	< 0.00500 J	0.0277	0.0358
		Sep-08			< 0.020 U	0.00508	0.0116	< 0.00070 U	< 0.10 U	< 0.0012 U	< 0.00500 J	< 0.00004 U	< 0.00500 J	0.0255	0.0337
		Apr-09			< 0.020 U	< 0.0100 J	0.0101	< 0.0012 U		< 0.00080 U				0.0245	
		Oct-09			< 0.050 U										
		Oct-10													
N Refinery	MW-23	Apr-08			**10**	**0.0247**	**12.2**	< 0.00050 U	< 0.200 J	< 0.00500 J	0.0856	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00500 J
		Sep-08			**11**	**0.0249**	**14.4**	< 0.00070 U	< 0.10 U	< 0.00500 J	0.0764	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.0014 U
		Apr-09			**17**	**0.0212**	**15.3**	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09			**3.7**	< 0.00500 J	0.0166	< 0.00500 J		< 0.00500 U		< 0.000200 U		0.0106	
		Mar-10		5.81	**3.4**	**0.0152**	**6.82**	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10		38.3	**5.1 J**	**< 0.0250 U**	**6.02**	< 0.0250 U	< 1.00 U	**< 0.0250 U**	0.0840			< 0.0250 U	
	MW-29	Apr-08			**0.30**	**0.0168**	0.0138	< 0.00050 U	**1.08**	< 0.00500 J	**0.446**	< 0.00004 U	< 0.00500 J	0.00772	0.0320
		Sep-08			**0.85**	**0.0429**	0.0291	< 0.00500 J	**2.69**	0.00865	**0.695**	< 0.00004 U	0.00509	< 0.00500 J	0.0207
		Apr-09			**0.53**	**0.0274**	0.0173	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09			**0.48**	< 0.00500 J	0.0118	< 0.00500 U		< 0.00500 U		< 0.000200 U		0.00821	
		Mar-10		0.0784	**0.22**	< 0.00500 U	0.0168	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10		0.0693	**0.38**	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	**0.350**			< 0.0250 U	
	MW-30	Mar-10		< 0.0500 U	**0.47**	**0.0126**	0.0128	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
	MW-40	Mar-10		0.974	**1.2**	< 0.00500 U	0.0259	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
	MW-41	Apr-08			**1.0**	**0.0124**	0.0213	< 0.00050 U	0.260	< 0.00500 J	**0.778**	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00500 J
		Sep-08			**0.75**	**0.0143**	0.0228	< 0.00070 U	0.226	< 0.0012 U	**0.944**	< 0.000200 J	0.00626	< 0.00500 J	< 0.0014 U
		Apr-09			**1.0**	**0.0181**	0.0271	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09			**1.1**	0.00720	0.0222	< 0.00500 U		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Mar-10		0.417	**0.92**	**0.0105**	0.0188	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10		0.744	**0.97**	**< 0.0250 U**	0.0323	< 0.0250 U	< 1.00 U	**< 0.0250 U**	**0.876**			< 0.0250 U	
	MW-42	Apr-08			**4.7**	**0.0139**	0.111	< 0.00500 J	**1.64**	< 0.00500 J	**0.210**	< 0.00004 U	0.00844	< 0.0017 U	< 0.00500 J
		Sep-08			**3.4**	**0.0111**	0.0274	< 0.00070 U	0.572	< 0.0012 U	0.158	< 0.00004 U	0.00780	< 0.00500 J	< 0.0014 U
		Apr-09			**2.6**	**0.0150**	0.0268	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Apr-09	FD		**2.2**	**0.0154**	0.0256	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09			**1.3**	**0.0138**	0.0179	< 0.00500 U		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Mar-10		1.89	**1.7**	**0.0122**	0.0283	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10		1.96	**1.0**	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	**0.209**			< 0.0250 U	
	MW-43	Apr-08			**3.2**	**0.0124**	0.390	< 0.00050 U	< 0.200 J	< 0.00500 J	**0.435**	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00040 U
		Sep-08			**5.0**	**0.0133**	0.510	< 0.00070 U	< 0.10 U	< 0.0012 U	**0.358**	< 0.00004 U	0.00719	< 0.00500 J	< 0.0014 U
		Apr-09			**5.7**	**0.0126**	0.903	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09			**2.0**	**0.0182**	**4.59**	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 J	
		Mar-10		12.9	**3.1**	0.00998	0.489	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10		15.7	**1.2**	**< 0.0250 U**	**1.22**	< 0.0250 U	< 1.00 U	**< 0.0250 U**	**0.229**	< 0.000200 U	< 0.0250 U	< 0.0250 U	< 0.0250 U

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

		Analyte Group:		TPH		Total Metals									
		Analyte:		GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
		Units:		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		CGWSL:			0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
		CGWSL Source:			NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	Location	Date	Dup												
N Refinery (continued)	MW-45	Apr-08			**0.26**	< 0.00500 J	0.0163	< 0.00500 J	0.971	0.00956	**0.328**	< 0.00004 U	0.0127	< 0.0017 U	< 0.00500 J
		Sep-08			**0.42**	0.00539	0.0160	< 0.00500 J	0.749	0.00816	**0.296**	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.00500 J
		Apr-09			**0.37**	< 0.0100 J	0.0147	< 0.0100 J		< 0.0100 J				0.0112	
		Sep-09			**0.33**	**0.0136**	0.0224	< 0.00500 U		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Mar-10			**0.29**	< 0.00500 U	0.0137	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Nov-10			**0.38**	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	**0.390**	< 0.000200 U	< 0.0250 U	< 0.0250 U	< 0.0250 U
		Nov-10	FD		**0.21**	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	**0.450**	< 0.000200 U	< 0.0500 U	< 0.0500 U	< 0.0500 U
	MW-46	Nov-10			< 0.050 U	**< 0.0500 U**	0.497	**0.0593**	**39.4**	**< 0.0500 U**	**0.392**		< 0.0500 U	< 0.0500 U	**0.189**
	MW-55	Apr-08			< 0.020 U	0.00570	0.0101	< 0.00050 U	< 0.200 J	< 0.00500 J	**0.492**	< 0.00004 U	0.00769	0.0134	0.0139
		Sep-08			0.051	0.00710	0.0118	< 0.00500 J	< 0.10 U	< 0.0012 U	**0.202**	< 0.00004 U	0.00766	0.0209	0.0176
		Apr-09			< 0.050 J	< 0.0100 J	0.0160	< 0.0012 U		< 0.00080 U		< 0.00004 U		0.0128	
		Sep-09			0.059	< 0.00500 J	0.0146	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Mar-10		< 0.0500 U	< 0.050 U	< 0.00500 U	0.00913	< 0.00500 U		< 0.00500 U		< 0.000200 U		0.0216	
		Oct-10		< 0.0500 U	< 0.050 U	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	< 0.0250 U	< 0.000200 U	< 0.0250 U	< 0.0250 U	< 0.0250 U
	MW-56	Apr-08			**0.52**	0.00755	0.0150	< 0.00500 J	< 0.200 J	< 0.00500 J	**0.278**	< 0.00004 U	0.0136	0.00553	0.0232
		Sep-08			**0.30**	0.00790	0.0184	< 0.00070 U	0.279	< 0.00500 J	**0.314**	< 0.00004 U	0.00721	0.00548	0.0242
		Apr-09			< 0.020 U	< 0.0100 J	0.0142	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U	
		Sep-09			0.073	0.00639	0.0135	< 0.00500 U		< 0.00500 J		< 0.000200 U		< 0.00500 J	
		Sep-09	FD		0.067	0.00525	0.00838	< 0.00500 U		< 0.0100 U	0.0573	< 0.000200 J		0.0184	
		Mar-10			**0.23**	0.00654	0.0122	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10			0.089	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	**0.304**			< 0.0250 U	
	MW-59	Apr-10		0.0946	< 0.050 U	**0.0316**	0.0127	< 0.00500 U		< 0.0100 U		< 0.000200 U		< 0.00500 U	
	MW-60	Apr-10		0.917	**0.35**	**0.0180**	0.0193	< 0.00500 U		< 0.0100 U		< 0.000200 U		< 0.00500 U	
		Nov-10		0.962	**0.27**	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	**0.351**	< 0.000200 U	< 0.0500 U	< 0.0500 U	< 0.0500 U
	MW-61	Apr-08		19.2	**3.8**	< 0.00500 J	0.0602	< 0.00500 J	0.393	0.00610	0.0187	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00500 J
		Sep-08		14.6	**3.5**	< 0.00500 J	0.0685	< 0.00500 J	0.844	0.00593	0.0236	< 0.00004 U	0.00607	< 0.00500 J	< 0.00500 J
		Apr-09		16.2	**3.2**	< 0.0100 J	0.0556	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Oct-09		9.80	**1.4**										
		Apr-10		9.31	**1.5**	< 0.0100 U	0.0327	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		11.3	**1.4**	**< 0.0250 U**	0.0294	< 0.0250 U	< 1.00 U	**< 0.0250 U**	0.0264			< 0.0250 U	
	MW-62	Apr-08		12.6	**8.3**	0.00891	0.270	< 0.00050 U	0.305	< 0.00500 J	0.0179	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00500 J
		Sep-08		11.5	**5.5**	0.00653	0.361	< 0.00070 U	0.250	< 0.0012 U	0.0118	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.0014 U
		Apr-09		10.2	**7.0**	**0.0192**	0.445	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Oct-09		6.61	**1.2**										
		Apr-10		3.91	**1.2**	< 0.0100 U	0.876	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		4.44	**0.65**	**< 0.0250 U**	0.206 J	< 0.0250 U	< 1.00 U	**< 0.0250 U**	< 0.0250 U			< 0.0250 U	
		Oct-10	FD	4.79	**0.61**	< 0.00500 U	0.217 J	< 0.00500 U	< 0.200 U	< 0.00500 U	0.00520			< 0.00500 U	
	MW-67	Apr-08		0.743	**1.1**	< 0.00500 J	0.127	< 0.00500 J	0.487	< 0.00500 J	**0.254**	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00040 U
		Sep-08		2.33	**2.3**	0.00987	0.201	< 0.00500 J	0.439	< 0.0012 U	**0.212**	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.0014 U
		Apr-09			**2.7**	< 0.0100 J	0.165	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Oct-09		0.368	**0.67**										
		Mar-10		0.402	**1.0**	< 0.00500 U	0.154	< 0.00500 U		< 0.00500 U		< 0.000200 J		< 0.00500 U	
		Oct-10		1.22	**1.3**	**< 0.0250 U**	0.287	< 0.0250 U	< 1.00 U	**< 0.0250 U**	0.142	< 0.000200 U	< 0.0250 U	< 0.0250 U	< 0.0250 U

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	TPH		Total Metals									
				Analyte:	GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:		0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
				CGWSL Source:		NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	**Dup**													
N Refinery (continued)	MW-90	May-08		0.547	**2.8**	< 0.00500 U	0.0188	< 0.00500 U	< 0.200 U	< 0.00500 U	0.0759	< 0.000200 U	< 0.00500 U	< 0.00500 U	< 0.00500 U
		Sep-08		0.402	**2.6**	**0.0237**	0.0146	< 0.00500 J	0.660	< 0.0012 U	0.0904	< 0.00004 U	< 0.00500 J	0.0296	0.0178
		Sep-08	FD	0.362	**2.6**	**0.0256**	0.0152	< 0.00500 J	0.772	< 0.0012 U	0.0952	< 0.00004 U	< 0.00500 J	0.0328	0.0209
		Apr-09		0.440	**1.9**	< 0.0100 J	0.0218	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Oct-09		0.244	**2.0**										
		Mar-10		0.274	**1.9**	< 0.00500 U	0.0164	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10		0.269	**1.7**	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	0.0520			< 0.0250 U	
	MW-91	May-08		20.5	**2.3**	0.00965	0.107	< 0.00500 U	**1.44**	< 0.00500 U	0.0919	< 0.000200 U	< 0.00500 U	< 0.00500 U	0.00702
		Sep-08		11.4	**2.4**	**0.0147**	0.0926	< 0.00500 J	**1.83**	< 0.00500 J	0.0708	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.0014 U
		Apr-09		15.3	**2.1**	< 0.0100 J	0.0934	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Oct-09		27.5	**2.6**										
		Mar-10		21.9	**1.2**	< 0.00500 U	0.0433	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10		29.8	**1.9**	**< 0.0250 U**	0.0618	< 0.0250 U	< 1.00 U	**< 0.0250 U**	< 0.0250 U			< 0.0250 U	
	MW-92	May-08		6.78	**6.3**	0.00531	0.336	< 0.00500 U	0.305	< 0.00500 U	0.0392	< 0.000200 U	< 0.00500 U	< 0.00500 U	< 0.00500 U
		Sep-08		6.18	**3.3**	0.00739	0.519	< 0.00500 J	0.211	< 0.0012 U	0.0310	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.00500 J
		Apr-09		6.79	**4.4**	< 0.0100 J	0.313	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Oct-09		9.45	**4.9**										
		Mar-10		5.26	**3.6**	< 0.00500 U	**2.29**	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
	MW-93	May-08		6.85	**4.1**	**0.0139**	0.515	**0.0726**	**28.0**	**0.0585**	**0.598**	< 0.000200 U	0.0183	< 0.00500 U	0.0644
		Sep-08		7.51	**9.9**	**0.0164**	0.206	0.0265	**19.1**	**0.0288**	**0.316**	< 0.00004 U	0.00904	< 0.0022 U	0.0464
		Apr-09		10.4	**1.2**	< 0.0100 J	0.123	0.0413		**0.0592**		< 0.000200 J		< 0.0050 U	
		Oct-09		5.08	**1.9**										
		Mar-10		31.8 J	**1.5 J**										
		Mar-10	FD	< 0.0500 UJ	0.14 J	0.00826	0.0207 J	< 0.00500 U		0.00880		< 0.000200 U		0.00508	
		Oct-10		8.49	**1.9**	**< 0.0250 U**	0.0427	< 0.0250 U	< 1.00 U	**< 0.0250 U**	< 0.0250 U			< 0.0250 U	
	MW-95	May-08		4.31	**2.6**	< 0.00500 U	0.0886	< 0.00500 U	**1.34**	< 0.00500 U	**0.375**	< 0.000200 U	< 0.00500 U	< 0.00500 U	< 0.00500 U
		Sep-08		0.365	**1.3**	**0.0119**	0.0546	< 0.00500 J	0.734	< 0.00500 J	**0.387**	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.0014 U
		Apr-09		0.273	**1.6**	< 0.0100 J	0.0756	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Oct-09		0.113	**1.2**										
		Mar-10		0.144	**0.95**	< 0.00500 U	0.0905	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
	MW-96	May-08		56.4	**3.3**	< 0.00500 U	0.160	< 0.00500 U	0.535	< 0.00500 U	0.00838	< 0.000200 U	< 0.00500 U	< 0.00500 U	< 0.00500 U
		Sep-08		42.6	**3.9**	< 0.00500 J	0.216	< 0.00500 J	0.686	< 0.0012 U	0.0135	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.00500 J
		Apr-09		37.3	**2.4**	< 0.0100 J	0.146	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Apr-09	FD	37.3	**1.5**	< 0.0100 J	0.152	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Oct-09		35.2	**1.6**										
		Oct-09	FD	38.0	**1.8**										
		Mar-10		25.8	**1.6**	< 0.00500 U	0.0675	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10		31.2	**1.7**	**< 0.0250 U**	0.0854	< 0.0250 U	< 1.00 U	**< 0.0250 U**	< 0.0250 U			< 0.0250 U	
	MW-98	May-08		18.7	**2.5**	< 0.00500 U	0.0137	< 0.00500 U	< 0.200 U	< 0.00500 U	0.148	< 0.000200 U	< 0.00500 U	< 0.00500 U	< 0.00500 U
		Sep-08		28.7	**2.0**	< 0.00500 J	0.0132	< 0.00500 J	0.387	< 0.00500 J	0.130	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.00500 J
		Apr-09		22.9	**2.5**	< 0.0100 J	0.0104	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		33.9	**2.7**	< 0.00500 J	0.0205	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10		27.4	**3.3**	< 0.0100 U	0.0142	< 0.0100 U		0.0108		< 0.000200 U		< 0.0100 U	
		Oct-10		30.2	**1.7**	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	< 0.0250 U			< 0.0250 U	

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2010 Groundwater Report
Navajo Refinery, Artesia, New Mexico

				Analyte Group:	TPH		Total Metals									
				Analyte:	GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:		0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
				CGWSL Source:		NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	**Dup**													
N Refinery (continued)	RW-1	Apr-08				< 0.00500 J	0.0542	0.00692	**3.58**	**0.0171**	0.0267	< 0.000200 J	< 0.00500 J	< 0.00500 J	< 0.00500 J
		Sep-08				< 0.00500 J	0.141	< 0.00070 U	< 0.10 U	< 0.00500 J	0.0197	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00500 J
		Apr-09				< 0.0100 J	0.0517	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Oct-09													
		Nov-10			**5.6**	**< 0.0500 U**	0.0634	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	0.172		< 0.0500 U	< 0.0500 U	< 0.0500 U
	RW-2	Nov-10			**5.4**	**< 0.0250 U**	**3.10**	< 0.0250 U	< 1.00 U	**< 0.0250 U**	< 0.0250 U		< 0.0250 U	< 0.0250 U	< 0.0250 U
	RW-7	Apr-10		0.320	**1.0 J**	< 0.00500 U	0.142	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
	RW-9	Apr-10		0.926	**0.44 J**	< 0.00500 U	0.0614	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Apr-10	FD	0.708	**0.42 J**	< 0.00500 U	0.0598	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
	RW-10	Apr-10		< 0.0500 U	**0.29**	< 0.00500 U	0.0214	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
	RW-16A	Mar-10			**0.40**	**0.0157**	0.0170	< 0.00500 U		< 0.00500 U		< 0.000200 U		0.0127	
S Refinery	KWB-2R	Oct-10			**1.3**	**< 0.0500 U**	0.733	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	0.167			< 0.0500 U	
	MW-28	Apr-08			**3.5**	0.00652	0.0293	< 0.00050 U	0.230	0.0148	0.124	< 0.00004 U	0.00621	< 0.0017 U	< 0.00500 J
		Apr-09			**3.0**	< 0.0100 J	0.0321	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09			**1.6**	< 0.00500 J	0.0141	< 0.00500 U		< 0.00500 U		< 0.000200 U		0.00501	
		Apr-10		5.42	**3.5**	0.00684	0.0365	< 0.00500 U		**0.0194**		< 0.000200 U		< 0.00500 U	
		Oct-10		6.81 J	**3.6 J**	**< 0.0250 U**	0.0364	< 0.0250 U	< 1.00 U	**< 0.0250 U**	**0.251**	< 0.000200 U	< 0.0250 U	< 0.0250 U	< 0.0250 U
	MW-49	Apr-08		6.57	**1.8**	< 0.00500 J	0.0471	< 0.00500 J	< 0.200 J	< 0.00500 J	**0.282**	< 0.00004 U	0.00748	< 0.0017 U	< 0.00500 J
		Sep-08		5.79	**2.2**	< 0.00500 J	0.0486	< 0.00070 U	< 0.200 J	< 0.0012 U	**0.302**	< 0.00004 U	0.00844	< 0.00500 J	< 0.0014 U
		Apr-09		4.27	**1.9**	< 0.0100 J	0.0486	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Apr-10		3.72	**0.74**	< 0.00500 U	0.0515	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10		3.29	**1.8**	**< 0.0250 U**	0.0493	< 0.0250 U	< 1.00 U	**< 0.0250 U**	**0.209**	< 0.000200 U	< 0.0250 U	< 0.0250 U	< 0.0250 U
	MW-50	Apr-08			**0.42**	< 0.0018 U	0.0224	< 0.00500 J	0.272	< 0.00500 J	**1.61**	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00500 J
		Apr-08	FD		**0.45**	< 0.0018 U	0.0209	< 0.00050 U	0.255	< 0.00500 J	**1.46**	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00500 J
		Sep-08			**0.38**	< 0.00500 J	0.0217	< 0.00070 U	0.563	< 0.0012 U	**1.42**	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.00500 J
		Sep-08	FD		**0.56**	< 0.00500 J	0.0258	< 0.00070 U	0.615	< 0.0012 U	**1.47**	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.00500 J
		Apr-09			**0.36**	< 0.0100 J	0.0208	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09			0.12	< 0.00500 J	0.0260	< 0.00500 U		< 0.00500 J		< 0.000200 U		< 0.00500 J	
		Sep-09	FD		0.12	**0.0119**	0.213	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 J	
		Apr-10			0.13	< 0.0100 U	0.0215	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 UJ	
		Nov-10			0.090	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	**1.27**		< 0.0250 U	< 0.0250 U	< 0.0250 U
	MW-52	Apr-08			< 0.020 U	< 0.00500 J	0.0133	< 0.00500 J	0.259	< 0.00500 J	0.100	< 0.00004 U	0.00737	< 0.00500 J	0.0233
		Sep-08			**0.22**	< 0.00500 J	0.0117	< 0.00070 U	0.321	< 0.0012 U	0.0975	< 0.00004 U	0.00838	< 0.00500 J	0.0216
		Apr-09			0.084	< 0.0100 J	0.0106	< 0.0012 U		< 0.00080 U				< 0.0050 U	
		Sep-09			0.080	0.00588	0.0110	< 0.00500 J		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Sep-09	FD		0.11	0.00602	0.0109	< 0.00500 U		< 0.00500 U		< 0.000200 U		0.00894	
		Apr-10		< 0.0500 U	0.057	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10		< 0.0500 U	< 0.050 U	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	0.0764	< 0.000200 U	< 0.0500 U	< 0.0500 U	< 0.0500 U
MW-57	Nov-10			< 0.0500 U	< 0.050 U	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	**0.201**			**0.0542**	

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

		Analyte Group:		TPH		Total Metals									
		Analyte:		GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
		Units:		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		CGWSL:			0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
		CGWSL Source:			NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	**Dup**												
S Refinery (continued)	MW-58	Apr-08			**0.47**	**0.0588**	0.318	< 0.00050 U	**2.38**	< 0.00500 J	**0.811**	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00040 U
		Sep-08			**0.75**	**0.0631**	0.210	< 0.00500 J	**2.87**	< 0.0012 U	**0.784**	< 0.00004 U	0.0114	< 0.00500 J	< 0.00500 J
		Apr-09			**0.68**	**0.0603**	0.373	< 0.0012 U		< 0.00080 U				< 0.0050 U	
		Sep-09			**0.73**	0.00568	0.0109	< 0.00500 J		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Apr-10			**4.6**	**0.0423**	**1.27**	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Apr-10	FD		**5.6**	**0.0275**	**1.10**	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10			**0.49**	**< 0.0500 U**	**3.19**	< 0.0500 U	**10.8**	**< 0.0500 U**	**0.364**	< 0.000200 U	< 0.0500 U	< 0.0500 U	< 0.0500 U
	MW-66	Apr-08		16.6	**1.4**	0.00540	**1.40**	< 0.00500 J	0.688	< 0.00500 J	**0.260**	< 0.00004 U	0.0184	< 0.00500 J	< 0.00500 J
		Sep-08		20.7	**1.4**	0.00880	**1.53**	0.00999	**5.57**	**0.0479**	**0.329**	< 0.00004 U	0.0231	< 0.0022 U	0.0138
		Apr-09		12.0	**1.7**	< 0.0100 J	**1.45**	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		12.5	**0.59**	< 0.00500 J	0.0299	< 0.00500 U		0.00771		< 0.000200 U		< 0.00500 U	
		Apr-10		8.27	**2.0**	< 0.00500 U	**1.78**	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10		23.0	**0.96**	**< 0.0250 U**	**2.78**	< 0.0250 U	**2.50**	**< 0.0250 U**	0.199	< 0.000200 U	< 0.0250 U	< 0.0250 U	< 0.0250 U
	MW-99	Sep-08		31.5	**0.93**	**0.0158**	0.337	< 0.00500 J	0.808	< 0.0012 U	**0.251**	< 0.00004 U	0.123	< 0.0022 U	0.00507
		Apr-09		2.04	**0.70**	**0.0465**	0.0811	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		29.2	**0.59**	< 0.00500 J	0.0136	< 0.00500 J		0.00946		< 0.000200 U		< 0.00500 U	
		Apr-10		27.3	**1.5**	**0.0138**	0.239	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10		22.6	**0.83**	**< 0.0250 U**	0.0800	< 0.0250 U	< 1.00 U	**< 0.0250 U**	**0.288**			< 0.0250 U	
	MW-101	May-08		3.82	**1.2**	**0.0360**	0.0800	< 0.00500 U	**2.12**	< 0.00500 U	**1.24**	< 0.000200 U	0.00793	< 0.00500 U	< 0.00500 U
		May-08	FD	3.81	**1.2**	**0.0395**	0.0937	< 0.00500 U	**4.23**	< 0.00500 U	**1.13**	< 0.000200 U	0.00781	< 0.00500 U	< 0.00500 U
		Sep-08		2.51	**1.0**	**0.0569**	0.0775	< 0.00070 U	**3.69**	< 0.0012 U	**1.21**	< 0.00004 U	0.0107	< 0.0022 U	< 0.0014 U
		Apr-09		24.4	**0.83**	**0.0145**	0.194	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U	
		Sep-09		0.736	**0.81**	**0.0129**	0.0349	0.0118		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10		1.99	**0.82**	**0.0246**	0.104	< 0.00500 U		< 0.0100 U		< 0.000200 U		< 0.00500 U	
		Nov-10		1.45	**1.1**	**0.0323**	0.0814	< 0.0250 U	**1.56**	**< 0.0250 U**	**0.982**			< 0.0250 U	
	MW-103	Sep-08		20.7	**2.5**					**0.0161**					
		Mar-09		9.54	**3.9**	< 0.00500 J	0.494	< 0.00500 J	< 0.200 J	< 0.00500 J	0.0191	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.00500 J
		Sep-09		5.15	**1.6**	**0.0595**	0.0651	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Apr-10		4.47	**3.4**	< 0.00500 U	0.614	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
	MW-104	Sep-08		3.12	**1.3**					0.00798					
		Mar-09		1.61	**0.85**	< 0.00500 J	0.0280	< 0.00500 J	< 0.200 J	< 0.0012 U	0.0177	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.0014 U
		Sep-09		1.08	**0.50**	< 0.00500 J	0.561	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 J	
		Apr-10		0.714	**0.38**	< 0.00500 U	0.0278	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10		0.784	**0.56**	**< 0.0250 U**	0.0286	< 0.0250 U	< 1.00 U	**< 0.0250 U**	0.0273			< 0.0250 U	
		Oct-10	FD	0.812 J	**0.47 J**	**< 0.0250 U**	0.0322	< 0.0250 U	< 1.00 U	**< 0.0250 U**	0.0283			< 0.0250 U	
	MW-106	Sep-09		37.8	**3.2**	0.00597	0.0400	< 0.00500 J		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Apr-10		22.7	**0.81 U**	< 0.00500 U	0.0180	< 0.00500 U		0.00593		< 0.000200 U		< 0.00500 U	
		Oct-10		40.1	**2.0**	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	< 0.0250 U			< 0.0250 U	
	MW-107	Sep-09		44.3	**2.8**	**0.0112**	0.0341	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 J	
		Mar-10		28.7	**3.1**	0.00857	**1.98**	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Nov-10		34.2	**1.8**	**< 0.0250 U**	**2.46**	< 0.0250 U	**10.8**	**< 0.0250 U**	0.196			< 0.0250 U	
	RW-4	Apr-10			**1.0**	**0.0283**	0.193	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	

Table 4 - Summary of Groundwater Analytical Data
2010 Groundwater Report
Navajo Refinery, Artesia, New Mexico

			Analyte Group:	TPH		Total Metals									
			Analyte:	GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
			Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
			CGWSL:		0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
			CGWSL Source:		NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	**Dup**												
S Refinery (continued)	RA-313	Mar-08													
		Sep-08													
		Sep-08	FD												
		Oct-09													
		Apr-10													
		Apr-10	FD												
	RA-1227	Nov-10													
		Nov-10	FD												
Field E of Refinery	KWB-1A	Sep-08			< 0.050 J	< 0.00500 J	0.00863	< 0.00500 J	< 0.200 J	< 0.0012 U	**0.231**	< 0.00004 U	0.00907	< 0.00500 J	0.0149
		Apr-09			< 0.020 U	< 0.0100 J	< 0.0100 J	< 0.0012 U		< 0.00080 U				< 0.0050 U	
		Sep-09			< 0.050 U	< 0.00500 J	0.0183	< 0.00500 J		< 0.00500 U		< 0.000200 U		0.0169	
		Apr-10			< 0.050 U	**< 0.0250 U**	0.0101	< 0.0250 U		< 0.0100 U		< 0.000200 U		< 0.0250 U	
		Oct-10			< 0.050 U	< 0.00500 U	0.00887	< 0.00500 U	< 0.200 U	< 0.00500 U	**0.234**	< 0.000200 U	0.0114	< 0.00500 U	0.0166
		Oct-10	FD		< 0.050 U	< 0.00500 U	0.00979	< 0.00500 U	< 0.200 U	< 0.00500 U	**0.251**	< 0.000200 U	0.0110	< 0.00500 U	0.0181
	KWB-3AR	Apr-08			< 0.020 U	< 0.00500 J	0.0354	< 0.00500 J	**2.34**	< 0.00500 J	0.0379	< 0.00004 U	< 0.00500 J	0.0191	0.0241
		Sep-08			< 0.020 U	< 0.00500 J	0.0187	< 0.00500 J	0.729	< 0.00500 J	0.0128	< 0.00004 U	0.00598	0.0194	0.0188
		Sep-08	FD		< 0.020 U	< 0.00500 J	0.0192	< 0.00500 J	0.702	< 0.00500 J	0.00765	< 0.00004 U	0.00713	0.0200	0.0185
		Apr-09			< 0.020 U	< 0.0100 J	0.0242	< 0.0100 J		< 0.0100 J		< 0.00004 U		0.0146	
		Sep-09			< 0.050 U	< 0.00500 J	0.00846	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Apr-10			< 0.050 U	**< 0.0250 U**	0.0236	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		0.0282	
		Oct-10			< 0.050 U	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	< 0.0500 U	< 0.000200 U	< 0.0500 U	< 0.0500 U	< 0.0500 U
		Oct-10	FD		< 0.050 U	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	< 0.0500 U	< 0.000200 U	< 0.0500 U	< 0.0500 U	< 0.0500 U
	KWB-7	Apr-08			< 0.020 U	< 0.00500 J	0.0359	< 0.00050 U	< 0.200 J	< 0.00500 J	**1.40**	< 0.00004 U	0.0217	< 0.00500 J	0.0242
		Sep-08			< 0.020 U	< 0.00500 J	0.0404	< 0.00070 U	< 0.10 U	< 0.0012 U	**2.29**	< 0.00004 U	0.0365	0.0105	0.0202
		Apr-09			< 0.050 J	< 0.0100 J	0.0343	< 0.0012 U		< 0.00080 U				0.0135	
		Oct-09			< 0.050 J										
		Apr-10			< 0.050 U	**< 0.0250 U**	0.0302	< 0.0250 U		< 0.0100 U		< 0.000200 U		< 0.0250 U	
		Oct-10			< 0.050 U	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	**2.34**	< 0.000200 U	< 0.0500 U	< 0.0500 U	< 0.0500 U
	KWB-9	Apr-08			< 0.020 U	< 0.00500 J	0.0104	< 0.00050 U	< 0.200 J	< 0.00020 U	0.0226	< 0.00004 U	< 0.00030 U	< 0.00500 J	0.00766
		Apr-08	FD		< 0.020 U	< 0.00500 J	0.00942	< 0.00050 U	< 0.200 J	< 0.00020 U	0.0230	< 0.00004 U	< 0.00030 U	< 0.00500 J	0.00790
		Sep-08			< 0.020 U	< 0.00500 J	0.0116	< 0.00500 J	< 0.200 J	< 0.0012 U	0.0225	< 0.00004 U	< 0.00500 J	< 0.00500 J	0.00826
		Apr-09			< 0.020 U	< 0.0100 J	0.0109	< 0.0012 U		< 0.0100 J				< 0.0050 U	
		Sep-09			< 0.050 U	0.00559	0.0159	< 0.00500 U		< 0.00500 U		< 0.000200 U		0.0183	
		Apr-10			< 0.050 U	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10			< 0.050 U	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	< 0.0500 U	< 0.000200 U	< 0.0500 U	< 0.0500 U	< 0.0500 U
	KWB-11A	Apr-08			< 0.020 U	< 0.00500 J	0.0167	< 0.00050 U	< 0.200 J	< 0.00020 U	0.0127	< 0.00004 U	< 0.00030 U	< 0.00500 J	0.0130
		Sep-08			< 0.020 U	< 0.00500 J	0.0187	< 0.00500 J	< 0.10 U	< 0.0012 U	0.0197	< 0.000200 J	< 0.00500 J	0.00822	0.0127
		Apr-09			< 0.020 U	< 0.0100 J	0.0215	< 0.0100 J		< 0.00080 U				0.0255	
		Oct-09			< 0.050 J										
		Apr-10			< 0.050 U	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10		< 0.0500 U	< 0.050 U	< 0.00500 U	0.0203	< 0.00500 U	< 0.200 U	< 0.0100 U	< 0.00500 U		0.00707	0.00897	0.0128
	KWB-11B	Oct-10		< 0.0500 U	< 0.050 U	< 0.00500 U	0.0172	< 0.00500 U	< 0.200 U	< 0.00500 U	< 0.00500 U	< 0.000200 U	0.00639	0.00981	0.00751

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2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

		Analyte Group:		TPH		Total Metals									
		Analyte:		GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
		Units:		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		CGWSL:			0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
		CGWSL Source:			NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	***Dup***												
Field E of Refinery (continued)	KWB-12A	Sep-08			< 0.020 U	0.00894	0.0750	0.00599	5.18	0.00791	0.130	< 0.000200 J	0.00680	0.0108	0.0162
		Sep-09			< 0.050 U	0.0147	0.103	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10		< 0.0500 U	< 0.050 U	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	< 0.0500 U	< 0.000200 U	< 0.0500 U	< 0.0500 U	< 0.0500 U
	KWB-12B	Oct-10		< 0.0500 U	< 0.050 U	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	< 0.0500 U	< 0.000200 U	< 0.0500 U	< 0.0500 U	< 0.0500 U
	RW-11-1	Nov-10			3.5	**< 0.0250 U**	0.106	< 0.0250 U	9.62	**< 0.0250 U**	0.812		< 0.0250 U	< 0.0250 U	< 0.0250 U
	RW-18	Apr-08				< 0.00500 J	0.0138	< 0.00500 J	0.826	< 0.00500 J	0.0201	< 0.000200 J	< 0.00500 J	0.0121	0.0248
		Sep-08				0.00541	0.0110	< 0.00500 J	< 0.200 J	< 0.0012 U	0.0440	< 0.000200 J	0.00515	0.00926	0.0228
		Apr-09				< 0.0100 J	0.0108	< 0.0012 U		< 0.00080 U				0.0115	
		Sep-09				0.00566	0.0156	< 0.00500 U		< 0.00500 U		< 0.000200 U		0.0379	
		Apr-10				**< 0.0250 U**	0.0102	< 0.0250 U		< 0.0100 U		< 0.000200 U		< 0.0250 U	
	RA-4196	Mar-08													
		Sep-08													
		Apr-09										< 0.00004 U			
		Sep-09													
		Apr-10													
		Nov-10													
	RA-4798	Mar-08													
		Sep-08													
		Apr-09										< 0.00004 U			
		Sep-09				< 0.00500 J	0.0138	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10										< 0.00004 U			
		Nov-10										< 0.000200 U		< 0.00500 U	
Crossgradient	KWB-13	Apr-08			< 0.020 U	< 0.00500 J	0.0217	< 0.00500 J	0.262	< 0.00500 J	0.00877	< 0.00004 U	< 0.00500 J	0.0183	0.0178
		Sep-08			< 0.020 U	< 0.00500 J	0.0239	< 0.00500 J	0.832	< 0.00500 J	0.0170	< 0.00004 U	< 0.00500 J	0.0163	0.0184
		Apr-09			< 0.020 U	< 0.0100 J	0.0186	< 0.0100 J		< 0.0100 J		< 0.00004 U		0.0181	
		Apr-09	FD		< 0.020 U	< 0.0100 J	0.0202	< 0.0100 J		< 0.0100 J		< 0.00004 U		0.0203	
		Sep-09			< 0.050 U	< 0.00500 J	0.0173	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 J	
		Apr-10			< 0.050 U	**< 0.0250 U**	0.0290	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
	NP-5	Apr-08			1.5	< 0.00500 J	0.0223	< 0.00500 J	0.645	< 0.00500 J	0.00506	< 0.00004 U	< 0.00500 J	0.0711	0.0218
		Sep-08			< 0.020 U	< 0.00500 J	0.00887	< 0.00500 J	< 0.200 J	< 0.0012 U	< 0.00500 J	< 0.00004 U	< 0.00500 J	0.0408	0.0183
		Apr-09			< 0.020 U	< 0.0100 J	< 0.0100 J	< 0.0012 U		< 0.0100 J				0.0435	
		Oct-09			< 0.050 U										
		Apr-10			< 0.050 U	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		0.0412	
	RA-3156	Mar-08													
		Sep-08													
		Apr-09										< 0.00004 U			
		Apr-10													
		Nov-10													

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	TPH		Total Metals									
				Analyte:	GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:		0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
				CGWSL Source:		NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	**Dup**													
Upgradient	MW-53	Apr-08			< 0.020 U	< 0.00500 J	0.0228	< 0.00050 U	< 0.200 J	< 0.00500 J	1.72	< 0.00004 U	0.00601	< 0.0017 U	0.0137	
		Sep-08			0.074	< 0.00500 J	0.0478	< 0.00070 U	0.223	< 0.0012 U	3.15	< 0.00004 U	0.00863	< 0.00500 J	0.0127	
		Apr-09			< 0.020 U	< 0.0100 J	0.0347	< 0.0012 U		< 0.00080 U				< 0.0050 U		
		Oct-09			< 0.050 U											
		Apr-10			< 0.050 U	**< 0.0250 U**	0.0280	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U		
		Apr-10	FD		< 0.050 U	**< 0.0250 U**	0.0261	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U		
	UG-1	Apr-09				< 0.0100 J	0.473	0.0315		0.0404		< 0.00004 U		0.0126		
		Oct-09														
		Apr-10		< 0.0500 U	< 0.050 U	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U		
		Oct-10		< 0.0500 U	< 0.050 U	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	< 0.0500 U	< 0.000200 U	< 0.0500 U	< 0.0500 U	< 0.0500 U	
	UG-2	Apr-09				< 0.0100 J	0.115	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U		
		Oct-09														
		Apr-10		< 0.0500 U	< 0.050 U	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U		
		Oct-10		< 0.0500 U	< 0.050 U	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	< 0.0500 U	< 0.000200 U	< 0.0500 U	< 0.0500 U	< 0.0500 U	
	UG-3R	Apr-09				< 0.0100 J	0.0613	< 0.0100 J		< 0.0100 J		0.000309		< 0.0050 U		
		Oct-09														
		Apr-10		< 0.0500 U	< 0.050 U	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U		
		Oct-10		< 0.0500 U	< 0.050 U	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	< 0.0250 U	< 0.000200 U	< 0.0250 U	< 0.0250 U	< 0.0250 U	

Table 4 - Summary of Groundwater Analytical Data

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Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
				Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
				CGWSL:	15	12	5	70	700	125	30	5	750	620	5
				CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	Location	Date	Dup												
NCL	MW-18	Apr-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Mar-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-54A	Apr-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-09	FD		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-54B	Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-108	Oct-09			**75**	11	**480**	< 5.0 U	96	< 5.0 J	**98**	< 5.0 U	11	110	< 5.0 U
		Mar-10			**34**	**15**	**330**	< 5.0 U	24	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	29	< 5.0 U
		Apr-10			**41**	5.5	**400**	< 5.0 U	11	< 5.0 U	27	< 5.0 UJ	7.6	58	< 5.0 U
		Oct-10			**38**	< 5.0 U	**460**	< 5.0 U	7.9	< 5.0 U	< 5.0 U	< 5.0 U	6.9	51	< 5.0 U
	NCL-31	Mar-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	8.5	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	8.7 J	< 5.0 UJ	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	NCL-32	Apr-08			< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08	FD		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Mar-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	NCL-33	Apr-08			< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09			< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Mar-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	NCL-34	Apr-08			**37**	< 5.0 J	**1200**	< 0.50 U	310	< 0.50 U	29	< 0.60 U	< 0.50 U	85	< 0.50 U
		Apr-08	FD		**36**	**28**	**1400**	< 0.50 U	370	< 0.50 U	24	< 0.60 U	< 0.50 U	84	< 0.50 U
		Sep-08			**27**	< 5.0 J	**590**	< 0.50 U	150	< 0.50 U	13	< 0.60 U	< 5.0 J	44	< 0.50 U
		Apr-09			**120**	**81**	**2500**	< 0.50 U	170	< 0.50 U	25	< 0.60 U	< 5.0 J	260	< 0.50 U
		Sep-09			**96**	< 5.0 J	**1800**	< 5.0 U	11	< 5.0 U	7.1	< 5.0 U	< 5.0 U	220	< 5.0 U
		Mar-10			**37**	**29**	**340**	< 5.0 U	5.6 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	65 J	< 5.0 U
		Mar-10	FD		**37**	**13**	**330**	< 5.0 U	23 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	25 J	< 5.0 U
		Oct-10			**76**	< 5.0 U	**1600**	< 5.0 U	12	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	150	< 5.0 U
		Oct-10	FD		**76**	< 5.0 U	**1400**	< 5.0 U	11	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	150	< 5.0 U

Table 4 - Summary of Groundwater Analytical Data
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Navajo Refinery, Artesia, New Mexico

		Analyte Group:	Volatile Organic Compounds										
		Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
		Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
		CGWSL:	15	12	5	70	700	125	30	5	750	620	5
		CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**										
NCL (continued)	NCL-44	Apr-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Mar-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	NCL-49	Apr-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08	FD	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09	FD	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	RW-17A	Mar-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
TEL	TEL-1	Apr-08		9.5	< 5.0 J	**17**	< 0.50 U	< 5.0 J	5.6	< 5.0 J	< 0.60 U	< 5.0 J	17	< 0.50 U
		Sep-08		5.8	< 5.0 J	**19**	< 0.50 U	< 5.0 J	7.2	< 5.0 J	< 0.60 U	< 5.0 J	21	< 0.50 U
		Apr-09		< 5.0 J	< 5.0 J	< 5.0 J	< 0.50 U	< 5.0 J	7.0	< 5.0 J	< 0.60 U	< 5.0 J	< 15 J	< 0.50 U
		Apr-09	FD	< 5.0 J	< 5.0 J	< 5.0 J	< 0.50 U	< 5.0 J	7.2	< 5.0 J	< 0.60 U	< 5.0 J	< 15 J	< 0.50 U
		Sep-09		< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	7.3	< 5.0 U	< 5.0 U	< 5.0 J	< 15 J	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	TEL-2	Apr-08		**170**	**18**	**1100**	< 0.50 U	21	15	25	< 0.60 U	60	230	< 0.50 U
		Apr-08	FD	**130**	12	**610**	< 0.50 U	13	16	14	< 0.60 U	33	150	< 0.50 U
		Sep-08		**210**	**30**	**2200**	< 0.50 U	43	11	**58**	< 0.60 U	110	310	< 0.50 U
		Apr-09		**150**	**22**	**1200**	< 0.50 U	12	17	27	< 0.60 U	43	200	< 0.50 U
		Sep-09		**160**	**22**	**1100**	< 5.0 U	9.4	17	28	< 5.0 U	56	240	< 5.0 U
		Apr-10		**180**	**35**	**1500**	< 5.0 U	15	7.5	**52**	< 5.0 U	75	250	< 5.0 U
		Oct-10		**46**	**< 25 U**	**910**	< 25 U	< 25 U	< 25 U	< 25 U	**< 25 U**	26	160	**< 25 U**
	TEL-3	Apr-08		**63**	**15**	**100**	< 0.50 U	< 5.0 J	17	< 5.0 J	< 0.60 U	< 5.0 J	24	< 0.50 U
		Apr-09		**48**	12	**540**	< 0.50 U	< 5.0 J	41	< 5.0 J	< 0.60 U	6.0	30	< 0.50 U
		Sep-09		**37**	8.8	**44**	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 J	< 15 J	< 5.0 U
		Apr-10		**25**	< 5.0 U	**35**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10	FD	**28**	< 5.0 U	**41**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		5.3	< 5.0 U	**30**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	TEL-4	Apr-08		**160**	**73**	**51**	< 0.50 U	49	**190**	6.2	< 0.60 U	< 5.0 J	87	< 0.50 U
		Sep-08		**160**	< 5.0 J	**27**	< 0.50 U	43	**190**	7.7	< 0.60 U	< 5.0 J	63	< 0.50 U
		Apr-09		< 0.50 U	**55**	**38**	< 0.50 U	24	**210**	< 5.0 J	< 0.60 U	< 5.0 J	42	< 0.50 U
		Sep-09		**91**	**36**	**12**	< 5.0 U	13	**200**	< 5.0 J	< 5.0 U	< 5.0 J	28	< 5.0 U
		Apr-10		**93**	**43**	**7.2**	< 5.0 U	7.6	**180**	< 5.0 U	< 5.0 U	< 5.0 U	30	< 5.0 U
		Oct-10		**51**	**25**	**10**	< 5.0 U	< 5.0 U	**160**	< 5.0 U	< 5.0 U	< 5.0 U	20	< 5.0 U

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
				Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
				CGWSL:	15	12	5	70	700	125	30	5	750	620	5
				CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	Location	Date	Dup												
EP	MW-1R	Apr-08			< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-2A	Apr-08			< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	7.1	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10	FD		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-2B	Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U		< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-3	Apr-08			< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 5.0 J	< 1.5 U	< 0.70 U
		Sep-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 15 J	< 0.50 U
		Apr-09			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 15 J	< 5.0 U
		Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-4A	Apr-08			< 0.60 U	< 0.70 U	< 5.0 J	< 0.50 U	< 5.0 J	< 0.50 U	< 1.1 U	< 0.50 U	< 5.0 J	28	< 0.70 U
		Apr-08	FD		< 0.60 U	< 0.70 U	< 5.0 J	< 0.50 U	< 5.0 J	< 0.50 U	< 1.1 U	< 0.50 U	< 5.0 J	26	< 0.70 U
		Sep-08			< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.60 U	< 5.0 J	20	< 0.50 U
		Apr-09			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.60 U	< 5.0 J	< 15 J	< 0.50 U
		Sep-09			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	16	< 5.0 U
		Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10	FD		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-4B	Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U		< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-5A	Apr-08			< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	6.8	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	6.2	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09			< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	6.2	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Sep-09	FD		< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	5.9	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-5B	Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U		< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-6A	Apr-08			< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 5.0 J	< 0.50 U	< 1.1 U	< 0.50 U	< 5.0 J	< 15 J	< 0.70 U
		Sep-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.60 U	< 5.0 J	< 15 J	< 0.50 U
		Apr-09			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.60 U	< 5.0 J	< 15 J	< 0.50 U
		Sep-09			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 15 J	< 5.0 U
		Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-6B	Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
				Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
				CGWSL:	15	12	5	70	700	125	30	5	750	620	5
				CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**												
EP (continued)	MW-7A	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 5.0 J	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 5.0 J	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 15 J	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-7B	Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-10	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 5.0 J	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-11A	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-11B	Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U		< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-15	Apr-08		< 0.60 U	< 0.70 U	18	< 0.50 U	< 5.0 J	< 5.0 J	< 1.1 U	< 0.50 U	< 5.0 J	< 15 J	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	5.0	< 0.50 U	33	< 5.0 J	< 0.50 U	< 0.60 U	< 5.0 J	< 15 J	< 0.50 U
		Apr-09		< 5.0 J	< 0.50 U	9.1	< 0.50 U	14	< 0.50 U	< 0.50 U	< 0.60 U	< 5.0 J	< 15 J	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	8.4	< 5.0 U	5.1	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-18A	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-18B	Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U		< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-22A	Apr-08		< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	8.3	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	7.3	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	5.5	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	7.9	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	6.5	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	5.9	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	8.2	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-22B	Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	9.1		< 5.0 U	< 5.0 U	< 15 U	< 5.0 U

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2010 Groundwater Report
Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
				Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
				CGWSL:	15	12	5	70	700	125	30	5	750	620	5
				CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	Location	Date	Dup												
EP (continued)	MW-70	Apr-08			< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08	FD		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-72	Apr-08			< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 5.0 J	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08			< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Mar-09			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-73	Apr-08			< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	7.5	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08			< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	5.3	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Mar-09			< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	5.5	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09			< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-74	Apr-08			< 5.0 J	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 5.0 J	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08			5.2	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 15 J	< 0.50 U
		Mar-09			< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09			< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 15 J	< 5.0 U
		Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10	FD		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-75	Apr-08			< 5.0 J	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	11	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08			< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	6.7	< 0.50 U	< 0.60 U	< 0.50 U	< 15 J	< 0.50 U
		Mar-09			< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	5.8	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09			< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	9.3	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Sep-09	FD		< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	10	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	7.0	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-76	Apr-08			< 5.0 J	< 5.0 J	< 0.60 U	< 0.50 U	< 0.50 U	5.4	< 1.1 U	< 0.50 U	< 0.50 U	< 15 J	< 0.70 U
		Sep-08			< 5.0 J	< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 15 J	< 0.50 U
		Mar-09			< 5.0 J	< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	5.9	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09			< 5.0 J	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	11	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	6.3	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-77	Apr-08			< 5.0 J	< 5.0 J	< 5.0 J	< 0.50 U	< 0.50 U	7.9	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08			< 5.0 J	< 5.0 J	**54**	< 0.50 U	5.7	13	< 0.50 U	< 0.60 U	< 5.0 J	< 15 J	< 0.50 U
		Mar-09			< 5.0 J	< 5.0 J	**12**	< 0.50 U	< 5.0 J	12	< 0.50 U	< 0.60 U	< 0.50 U	< 15 J	< 0.50 U
		Sep-09			< 5.0 J	< 5.0 J	**32**	< 5.0 U	< 5.0 J	10	< 5.0 U	< 5.0 U	< 5.0 J	< 15 J	< 5.0 U
		Apr-10			< 5.0 U	< 5.0 U	**20**	< 5.0 U	< 5.0 U	9.7	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10			< 5.0 U	< 5.0 U	**11**	< 5.0 U	< 5.0 U	9.8	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U

Table 4 - Summary of Groundwater Analytical Data
2010 Groundwater Report
Navajo Refinery, Artesia, New Mexico

		Analyte Group:	Volatile Organic Compounds										
		Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
		Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
		CGWSL:	15	12	5	70	700	125	30	5	750	620	5
		CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**										
EP (continued)	MW-78	Apr-08		< 5.0 J	< 5.0 J	< 5.0 J	< 0.50 U	< 0.50 U	< 5.0 J	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 5.0 J	< 5.0 J	< 5.0 J	< 0.50 U	< 5.0 J	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 15 J	< 0.50 U
		Mar-09		< 5.0 J	< 5.0 J	6.7	< 0.50 U	< 5.0 J	< 5.0 J	< 0.50 U	< 0.60 U	< 5.0 J	< 15 J	< 0.50 U
		Sep-09		5.0	< 5.0 J	13	< 5.0 U	< 5.0 J	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 J	< 15 J	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-79	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 5.0 J	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Mar-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Mar-09	FD	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-80	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Mar-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-81	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Mar-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-82	Apr-08		< 5.0 J	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 5.0 J	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Apr-08	FD	8.9	< 5.0 J	12	< 0.50 U	10	< 5.0 J	< 1.1 U	< 0.50 U	< 5.0 J	52	< 0.70 U
		Sep-08		< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08	FD	< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 5.0 J	< 1.0 U	< 0.50 U
		Mar-09		< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-83	Apr-08		8.9	< 5.0 J	13	< 0.50 U	11	< 5.0 J	< 1.1 U	< 0.50 U	< 5.0 J	53	< 0.70 U
		Sep-08		< 5.0 J	< 5.0 J	5.3	< 0.50 U	6.0	< 5.0 J	< 0.50 U	< 0.60 U	< 5.0 J	29	< 0.50 U
		Mar-09		6.2	< 5.0 J	5.5	< 0.50 U	6.3	< 5.0 J	< 0.50 U	< 0.60 U	< 5.0 J	44	< 0.50 U
		Sep-09		< 5.0 J	< 5.0 U	5.3	< 5.0 U	< 5.0 J	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 J	< 15 J	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-84	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	16	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	13	< 1.0 U	< 1.2 U	< 1.0 U	< 2.0 U	< 1.0 U
		Mar-09		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 J	< 1.0 U	< 1.2 U	< 1.0 U	< 2.0 U	< 1.0 U
		Sep-09		< 10 U	< 10 U	**< 10 U**	< 10 U	< 10 U	12	< 10 U	**< 10 U**	< 10 J	< 30 U	**< 10 U**
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	7.1	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
				Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
				CGWSL:	15	12	5	70	700	125	30	5	750	620	5
				CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**												
EP (continued)	MW-87	Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-88	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09	FD	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Sep-09	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	OCD-1R	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	OCD-2A	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Mar-09	FD	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	OCD-2B	Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U		< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	OCD-3	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Apr-08	FD	< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	OCD-4	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U

Table 4 - Summary of Groundwater Analytical Data
2010 Groundwater Report
Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
				Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
				CGWSL:	15	12	5	70	700	125	30	5	750	620	5
				CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**												
EP (continued)	OCD-5	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	OCD-6	Apr-08		< 5.0 J	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 5.0 J	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 UJ	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	OCD-7A	Apr-08		< 5.0 J	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 5.0 J	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Sep-09	FD	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	5.0	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 UJ	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	OCD-7B	Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U		< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U		< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	OCD-8A	Apr-08		< 5.0 J	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	8.3	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	8.7	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08	FD	< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	8.4	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	9.0	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	8.4	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	6.5	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	7.9	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	OCD-8B	Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U		< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
TMD	MW-8	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	5.6	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	5.7	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-16	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09	FD	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
				Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
				CGWSL:	15	12	5	70	700	125	30	5	750	620	5
				CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**												
TMD (continued)	MW-20	Apr-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-21	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	5.7	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	8.8	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	12	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	8.3	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	6.2	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-25	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-26	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-27	Apr-08												
		Sep-08												
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-68	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-71	Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-89	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 5.0 J	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 5.0 J	< 15 J	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 5.0 J	< 15 J	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U

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2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
				Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
				CGWSL:	15	12	5	70	700	125	30	5	750	620	5
				CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**												
TMD (continued)	NP-1	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	**190**	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	**230**	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	**150**	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	**130**	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	**150**	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	100	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	NP-6	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	22	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
N Refinery	MW-23	Apr-08		**660**	**130**	**14000**	< 0.50 U	**2600**	32	**330**	< 0.60 U	**1100**	**2200**	< 0.50 U
		Sep-08		**450**	**85**	**13000**	< 0.50 U	**1800**	33	**300**	< 5.0 J	680	**1800**	< 0.50 U
		Apr-09		**580**	**90**	**15000**	< 0.50 U	**1900**	27	**370**	< 0.60 U	600	**1700**	< 0.50 U
		Sep-09		**110**	**89**	**7700**	< 5.0 U	140	7.0	**99**	< 5.0 J	5.2	310	< 5.0 U
		Mar-10		**150**	< 5.0 U	**15000**	< 5.0 U	**1100**	8.1	**200**	< 5.0 U	9.7	500	< 5.0 U
		Oct-10		**190**	< 5.0 U	**14000**	< 5.0 U	**1200**	8.0	**190**	< 5.0 U	9.4	**< 1500 U**	< 5.0 U
	MW-29	Apr-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Mar-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-30	Mar-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-40	Mar-10		< 5.0 U	< 5.0 U	**55**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-41	Apr-08		< 5.0 J	< 5.0 J	**85**	< 0.50 U	< 5.0 J	8.0	< 5.0 J	< 0.60 U	< 0.50 U	17	< 0.50 U
		Sep-08		< 5.0 J	< 5.0 J	**76**	< 0.50 U	< 0.50 U	24	< 0.50 U	< 0.60 U	< 0.50 U	< 15 J	< 0.50 U
		Apr-09		< 5.0 J	< 0.50 U	**23**	< 0.50 U	< 0.50 U	60	< 0.50 U	< 0.60 U	< 0.50 U	< 15 J	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	**35**	< 5.0 U	< 5.0 U	24	< 5.0 U	< 5.0 U	< 5.0 U	< 15 J	< 5.0 U
		Mar-10		< 5.0 U	< 5.0 U	**75**	< 5.0 U	< 5.0 U	10	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	**210**	< 5.0 U	< 5.0 U	39	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-42	Apr-08		**52**	**22**	**2300**	< 0.50 U	< 5.0 J	27	5.3	< 0.60 U	< 5.0 J	99	< 0.50 U
		Sep-08		**270**	**120**	**2000**	< 0.50 U	26	24	**45**	< 0.60 U	6.1	470	< 0.50 U
		Apr-09		**250**	9.3	**1600**	< 0.50 U	27	28	**40**	< 0.60 U	5.7	420	< 0.50 U
		Apr-09	FD	**270**	9.0	**1700**	< 0.50 U	26	24	**41**	< 0.60 U	5.6	450	< 0.50 U
		Sep-09		**56**	**26**	**560**	< 5.0 U	< 5.0 J	31	< 5.0 J	< 5.0 U	< 5.0 J	98	< 5.0 U
		Mar-10		**54**	**23**	**660**	< 5.0 U	< 5.0 U	27	< 5.0 U	< 5.0 U	< 5.0 U	120	< 5.0 U
		Oct-10		**37**	< 5.0 U	**610**	< 5.0 U	< 5.0 U	26	< 5.0 U	< 5.0 U	< 5.0 U	80	< 5.0 U
	MW-43	Apr-08		**95**	9.4	**1800**	< 0.50 U	180	< 0.50 U	**39**	< 0.60 U	61	360	< 0.50 U
		Sep-08		**200**	**14**	**4400**	< 0.50 U	370	< 0.50 U	**73**	< 0.60 U	87	540	< 5.0 J
		Apr-09		**200**	**23**	**4900**	< 0.50 U	510	< 0.50 U	**84**	< 0.60 U	140	**720**	< 0.50 U
		Sep-09		**81**	**52**	**810**	< 5.0 U	24	8.7	< 5.0 J	< 5.0 U	50	220	< 5.0 U
		Mar-10		**120**	11	**4700 J**	< 5.0 U	200	6.1	**35**	< 5.0 UJ	120	460	< 5.0 U
		Oct-10		**89**	**< 50 U**	**5800**	< 50 U	59	< 50 U	**< 50 U**	**< 50 U**	99	460	**< 50 U**

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
				Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
				CGWSL:	15	12	5	70	700	125	30	5	750	620	5
				CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**												
N Refinery (continued)	MW-45	Apr-08			< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 5.0 J	< 1.0 U	< 0.50 U
		Sep-08			< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 5.0 J	< 5.0 J	< 0.50 U	< 0.60 U	< 5.0 J	< 15 J	< 0.50 U
		Apr-09			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 15 J	< 0.50 U
		Sep-09			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Mar-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Nov-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Nov-10	FD		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-46	Nov-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-55	Apr-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Mar-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-56	Apr-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Sep-09	FD		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Mar-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-59	Apr-10			< 5.0 U	< 5.0 U	**8.0**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-60	Apr-10			5.0	6.2	**170**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Nov-10			9.8	7.7	**220**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	20	< 5.0 U
	MW-61	Apr-08			**370**	**80**	**4000**	< 0.50 U	92	< 0.50 U	**250**	< 0.60 U	230	**980**	< 0.50 U
		Sep-08			**340**	**79**	**3500**	< 0.50 U	80	< 0.50 U	**220**	< 0.60 U	190	**760**	< 0.50 U
		Apr-09			**320**	**78**	**3600**	< 0.50 U	79	< 0.50 U	**170**	< 0.60 U	210	**820**	< 0.50 U
		Oct-09			**180**	**43**	**2400**	< 5.0 U	46	< 5.0 U	**130**	< 5.0 U	150	460	< 5.0 U
		Apr-10			**200**	**50**	**2200**	< 5.0 U	64	< 5.0 U	**150**	< 5.0 U	150	550	< 5.0 U
		Oct-10			**230**	< 5.0 U	**2000**	< 5.0 U	85	< 5.0 U	**160**	< 5.0 U	140	560	< 5.0 U
	MW-62	Apr-08			**180**	11	**3900**	< 0.50 U	60	< 0.50 U	**79**	< 0.60 U	< 5.0 J	380	< 0.50 U
		Sep-08			**190**	**14**	**3900**	< 0.50 U	56	13	**82**	< 0.60 U	< 5.0 J	400	< 0.50 U
		Apr-09			**140**	11	**3500**	< 0.50 U	44	17	**65**	< 0.60 U	< 5.0 J	320	< 0.50 U
		Oct-09			**80**	8.4	**2900**	< 5.0 U	32	19	**32**	< 5.0 U	< 5.0 J	240	< 5.0 U
		Apr-10			**52**	5.2	**1500 J**	< 5.0 U	39	36	14	< 5.0 U	< 5.0 U	170	< 5.0 U
		Oct-10			14 J	11	**560 J**	< 5.0 U	34	23	23	< 5.0 U	< 5.0 U	260	< 5.0 U
		Oct-10	FD		**85 J**	9.7	**1400 J**	< 5.0 U	33	21	25	< 5.0 U	< 5.0 U	250	< 5.0 U
	MW-67	Apr-08			< 0.50 U	< 0.50 U	**64**	< 5.0 J	< 5.0 J	27	< 5.0 J	< 5.0 J	< 5.0 J	< 15 J	**14**
		Sep-08			< 0.50 U	< 0.50 U	**110**	< 5.0 J	< 5.0 J	**1300**	< 5.0 J	< 5.0 J	< 5.0 J	< 15 J	**9.0**
		Apr-09			< 0.50 U	< 0.50 U	**78**	< 5.0 J	< 5.0 J	**150**	< 5.0 J	< 5.0 J	< 0.50 U	< 15 J	**17**
		Oct-09			< 5.0 U	< 5.0 U	**45**	< 5.0 J	< 5.0 J	110	< 5.0 U	< 5.0 J	< 5.0 J	< 15 J	5.0
		Mar-10			< 5.0 U	< 5.0 U	**86**	< 5.0 U	< 5.0 U	86	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	**6.3**
		Oct-10			< 5.0 U	< 5.0 U	**160**	< 5.0 U	< 5.0 U	**580**	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U

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2010 Groundwater Report
Navajo Refinery, Artesia, New Mexico

		Analyte Group:	Volatile Organic Compounds										
		Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
		Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
		CGWSL:	15	12	5	70	700	125	30	5	750	620	5
		CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	Location	Date	Dup										
N Refinery (continued)	MW-90	May-08		6.2	< 5.0 U	8.0	< 5.0 U	< 5.0 U	< 5.0 U	5.9	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Sep-08		< 0.50 U	< 0.50 U	29	< 0.50 U	< 5.0 J	< 0.50 U	7.1	< 0.60 U	< 5.0 J	< 1.0 U	< 0.50 U
		Sep-08	FD	< 0.50 U	< 0.50 U	29	< 0.50 U	< 5.0 J	< 0.50 U	7.7	< 0.60 U	< 5.0 J	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	20	< 0.50 U	< 5.0 J	< 0.50 U	< 5.0 J	< 0.60 U	< 5.0 J	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 J	< 5.0 U	14	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 J	< 15 U	< 5.0 U
		Mar-10		< 5.0 U	< 5.0 U	11	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	14	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-91	May-08		200	45	2200	< 5.0 U	1300	< 5.0 U	54	< 5.0 U	3100	1200	< 5.0 U
		Sep-08		140	26	1600	< 0.50 U	960	< 0.50 U	32	< 0.60 U	780	660	< 0.50 U
		Apr-09		140	34	1900	< 0.50 U	1100	< 0.50 U	43	< 0.60 U	2200	1100	< 0.50 U
		Oct-09		150	41	3900	< 5.0 U	1500	< 5.0 U	57	< 5.0 U	4800	1800	< 5.0 U
		Mar-10		170	49	3500	< 5.0 U	1500	< 5.0 U	47	< 5.0 U	3900	1900	< 5.0 U
		Oct-10		140	67	4800	< 5.0 U	1900	< 5.0 U	58	< 5.0 U	6000	2400	< 5.0 U
	MW-92	May-08		20	37	2500	48	530	110	190	11	18	86	19
		Sep-08		9.1	< 5.0 J	1400	15	290	38	84	17	14	62	31
		Apr-09		6.6	< 5.0 J	1800	28	220	68	90	7.9	16	57	20
		Oct-09		< 5.0 J	12	3600	94	260	260	110	< 5.0 U	18	40	< 5.0 J
		Mar-10		< 5.0 U	12	2200	60	160	130	34	< 5.0 U	13	34	< 5.0 U
	MW-93	May-08		190	< 5.0 U	2000	< 5.0 U	7.1	< 5.0 U	11	< 5.0 U	5.9	400	< 5.0 U
		Sep-08				1800		19			< 0.60 U	< 5.0 J	460	< 0.50 U
		Apr-09		300	25	2700	< 0.50 U	40	< 5.0 J	110	< 0.60 U	12	790	< 5.0 J
		Oct-09		190	16	1300	< 5.0 U	13	< 5.0 U	64	< 5.0 U	5.3	380 J	< 5.0 U
		Mar-10		180	25 J	1500 J	< 5.0 U	20 J	< 5.0 U	71 J	< 5.0 U	7.1	480	< 5.0 U
		Mar-10	FD	< 5.0 U	< 5.0 UJ	< 5.0 UJ	< 5.0 U	< 5.0 UJ	< 5.0 U	< 5.0 UJ	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		320	33	2700	< 5.0 U	42	< 5.0 U	100	< 5.0 U	11	870	< 5.0 U
	MW-95	May-08		< 5.0 U	< 5.0 U	110	< 5.0 U	6.0	< 5.0 U	8.8	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Sep-08		< 5.0 J	< 0.50 U	47	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.60 U	< 5.0 J	< 1.0 U	< 0.50 U
		Apr-09		< 5.0 J	< 0.50 U	23	< 0.50 U	< 5.0 J	< 0.50 U	< 5.0 J	< 0.60 U	< 5.0 J	< 15 J	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Mar-10		< 5.0 U	< 5.0 U	16	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-96	May-08		< 5.0 U	< 5.0 U	12	< 5.0 U	9.7	57000	9.1	< 5.0 U	< 5.0 U	28	< 5.0 U
		Sep-08		< 5.0 J	< 0.50 U	9.7	< 0.50 U	8.1	63000	7.2	< 0.60 U	< 5.0 J	23	< 0.50 U
		Apr-09		< 5.0 J	20	6.8	< 0.50 U	6.1	63000	< 5.0 J	< 0.60 U	< 5.0 J	24	< 0.50 U
		Apr-09	FD	< 5.0 J	18	8.3	< 0.50 U	5.9	64000	< 5.0 J	< 0.60 U	< 5.0 J	22	< 0.50 U
		Oct-09		< 5.0 J	11	< 5.0 J	< 5.0 U	< 5.0 J	53000	< 5.0 J	< 5.0 U	< 5.0 J	< 15 J	< 5.0 U
		Oct-09	FD	< 5.0 J	11	5.1	< 5.0 U	< 5.0 J	53000	< 5.0 J	< 5.0 U	< 5.0 J	< 15 J	< 5.0 U
		Mar-10		< 5.0 U	8.8	< 5.0 U	< 5.0 U	< 5.0 U	33000	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	30000	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-98	May-08		150	27	8100	< 5.0 U	330	5.8	83	< 5.0 U	270	440	< 5.0 U
		Sep-08		210	32	7500	< 0.50 U	450	< 0.50 U	120	< 0.60 U	250	< 750 J	< 0.50 U
		Apr-09		160	34	7100	< 0.50 U	590	< 0.50 U	93	< 0.60 U	180	700	< 0.50 U
		Sep-09		320	95	7700	< 5.0 U	1200	< 5.0 U	170	< 5.0 U	210	1300	< 5.0 U
		Apr-10		320	75	9500	< 5.0 U	1300	< 5.0 U	140	< 5.0 U	230	1600	< 5.0 U
		Oct-10		140	77	7600	< 25 U	770	< 25 U	160	< 25 U	190	1300	< 25 U

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
				Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
				CGWSL:	15	12	5	70	700	125	30	5	750	620	5
				CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	Location	Date	Dup												
N Refinery (continued)	RW-1	Apr-08			**590**	**140**	**1700**	**00**	270	47	**500**	**110**	120	580	**810**
		Sep-08			**370**	**62**	**2100**	**60**	300	24	**160**	**71**	160	360	**1500**
		Apr-09			**130**	10	**990**	**10**	110	39	28	**42**	21	170	**760**
		Oct-09			**590**	**150**	**1900**	**360**	430	46	**340**	**140**	310	**670**	**660**
		Nov-10			**35**	**69**	**950**	**3300**	210	29	**140**	**48**	49	230	**700**
	RW-2	Nov-10			**81**	**120**	**11000**	**460**	**1200**	43	**320**	**37**	130	**770**	**17**
	RW-7	Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 UJ	< 15 U	< 5.0 U
	RW-9	Apr-10			< 5.0 U	< 5.0 U	**230**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 UJ	< 15 U	< 5.0 U
		Apr-10	FD		< 5.0 U	< 5.0 U	**240**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 UJ	< 15 U	< 5.0 U
	RW-10	Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	RW-16A	Mar-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 UJ	< 5.0 UJ	< 15 U	< 5.0 U
S Refinery	KWB-2R	Oct-10			**510**	**41**	**5200**	< 5.0 U	**2000**	82	**280**	< 5.0 U	190	**730**	< 5.0 U
	MW-28	Apr-08			**150**	**69**	**310**	< 0.50 U	21	**8500**	19	< 0.60 U	8.0	130	< 0.50 U
		Apr-09			**190**	< 0.50 U	**340**	< 0.50 U	22	**7400**	11	< 0.60 U	8.8	140	< 0.50 U
		Sep-09			14	**25**	**180**	< 5.0 U	10	**7700**	< 5.0 J	< 5.0 U	5.7	49	< 5.0 U
		Apr-10			**100**	**48**	**130**	< 5.0 U	8.5	**5100**	< 5.0 U	< 5.0 U	< 5.0 UJ	62	< 5.0 U
		Oct-10			**44**	< 5.0 U	**180**	< 5.0 U	9.2	**3700**	< 5.0 U	< 5.0 U	5.2	58	< 5.0 U
	MW-49	Apr-08			**120**	**19**	**1000**	< 0.50 U	39	120	27	< 0.60 U	29	170	< 0.50 U
		Sep-08			**140**	**17**	**890**	< 0.50 U	38	**130**	27	< 0.60 U	23	150	< 0.50 U
		Apr-09			**92**	12	**650**	< 0.50 U	34	**160**	17	< 0.60 U	20	130	< 0.50 U
		Apr-10			**73**	6.1	**790**	< 5.0 U	16	110	< 5.0 U	< 5.0 U	9.6 J	120	< 5.0 U
		Oct-10			**61**	< 5.0 U	**450**	< 5.0 U	15	93	7.1	< 5.0 U	6.8	94	< 5.0 U
	MW-50	Apr-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-08	FD		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08			< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08	FD		< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Sep-09	FD		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 UJ	< 5.0 U	< 15 U	< 5.0 U
		Nov-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-52	Apr-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09			< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Sep-09	FD		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-57	Nov-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
				Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
				CGWSL:	15	12	5	70	700	125	30	5	750	620	5
				CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**												
S Refinery (continued)	MW-58	Apr-08			**30**	< 5.0 J	**640**	< 0.50 U	71	**180**	13	< 0.60 U	< 5.0 J	53	< 0.50 U
		Sep-08			**16**	< 5.0 J	**510**	< 0.50 U	42	**250**	< 5.0 J	< 0.60 U	< 5.0 J	29	< 0.50 U
		Apr-09			**31**	< 5.0 J	**730**	< 0.50 U	37	**220**	16	< 0.60 U	< 5.0 J	45	< 0.50 U
		Sep-09			**39**	6.8	**1800**	< 5.0 U	120	**190**	17	< 5.0 U	< 5.0 J	85	< 5.0 U
		Apr-10			**34**	< 5.0 U	**1100**	< 5.0 U	47	**180**	19	< 5.0 U	< 5.0 U	34	< 5.0 U
		Apr-10	FD		**34**	< 5.0 U	**1300**	< 5.0 U	47	**200**	18	< 5.0 U	< 5.0 U	33	< 5.0 U
		Oct-10			**53**	5.1	**6200**	< 5.0 U	270	**260**	16	< 5.0 U	8.0	200	< 5.0 U
	MW-66	Apr-08			**39**	< 5.0 J	**3300**	< 0.50 U	110	**7400**	**71**	< 0.60 U	< 5.0 J	50	< 0.50 U
		Sep-08			**46**	< 5.0 J	**5200**	< 0.50 U	140	**5500**	**110**	< 0.60 U	8.8	70	< 0.50 U
		Apr-09			**19**	< 5.0 J	**2100**	< 0.50 U	60	**5400**	**78**	< 0.60 U	< 5.0 J	21	< 0.50 U
		Sep-09			7.2	< 5.0 J	**3300**	< 5.0 U	37	**5500**	**47**	< 5.0 U	< 5.0 J	18	< 5.0 U
		Apr-10			6.0	< 5.0 U	**2300**	< 5.0 U	32	**4200**	**36**	< 5.0 U	< 5.0 UJ	21	< 5.0 U
		Oct-10			**64**	< 5.0 U	**7500**	< 5.0 U	190	**2900**	**89 UB**	< 5.0 U	24	130	< 5.0 U
	MW-99	Sep-08			**26**	< 5.0 J	**9800**	< 0.50 U	120	**4900**	9.9	< 0.60 U	420	200	< 0.50 U
		Apr-09			< 5.0 J	< 0.50 U	**550**	< 0.50 U	41	97	< 5.0 J	< 0.60 U	< 5.0 J	26	< 0.50 U
		Sep-09			**82**	12	**9200**	< 5.0 U	380	**5900**	27	< 5.0 U	750	610	< 5.0 U
		Apr-10			**120**	**< 25 U**	**9700**	< 25 U	450	**4300**	< 25 U	**< 25 U**	**2500 J**	**1100**	**< 25 U**
		Oct-10			13	< 5.0 U	**8000**	< 5.0 U	19	**5500**	< 5.0 U	< 5.0 U	45	130	< 5.0 U
	MW-101	May-08			5.3	< 5.0 U	**730**	< 5.0 U	47	85	5.2	< 5.0 U	< 5.0 U	16	< 5.0 U
		May-08	FD		8.9	< 5.0 U	**1100**	< 5.0 U	83	88	8.3	< 5.0 U	< 5.0 U	25	< 5.0 U
		Sep-08			5.4	< 0.50 U	**680**	< 0.50 U	49	99	5.9	< 0.60 U	< 5.0 J	16	< 0.50 U
		Apr-09			**42**	7.1	**4700**	< 0.50 U	150	**2600**	14	< 0.60 U	220	280	< 0.50 U
		Sep-09			< 5.0 U	< 5.0 U	**180**	< 5.0 U	8.5	100	< 5.0 J	< 5.0 U	< 5.0 J	< 15 J	< 5.0 U
		Apr-10			< 5.0 U	< 5.0 U	**560 J**	< 5.0 U	36	94 J	< 5.0 U	< 5.0 U	< 5.0 UJ	< 15 U	< 5.0 U
		Nov-10			< 5.0 U	< 5.0 U	**420**	< 5.0 U	25	91	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-103	Sep-08			**380**	**100**	**1200**	< 0.50 U	**1100**	< 0.50 U	**280**	< 0.60 U	380	**1300**	< 0.50 U
		Mar-09			**220**	**110**	**1000**	< 0.50 U	610	< 5.0 J	**190**	< 0.60 U	120	410	< 0.50 U
		Sep-09			**100**	**39**	**860**	< 5.0 U	350	< 5.0 U	**90**	< 5.0 U	22	170	< 5.0 U
		Apr-10			**81**	< 5.0 U	**810**	< 5.0 U	380	< 5.0 U	**59**	< 5.0 U	7.2	170	< 5.0 U
	MW-104	Sep-08			< 5.0 J	< 0.50 U	**230**	< 0.50 U	120	< 5.0 J	6.3	< 0.60 U	< 5.0 J	< 15 J	< 5.0 J
		Mar-09			< 0.50 U	< 0.50 U	**34**	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09			< 5.0 U	< 5.0 U	**190**	< 5.0 U	10	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10			< 5.0 U	< 5.0 U	**28**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10			< 5.0 U	< 5.0 U	**120**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10	FD		< 5.0 U	< 5.0 U	**150**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-106	Sep-09			**290**	**36**	**15000**	< 5.0 U	**1100**	39	**180**	< 5.0 U	260	560	< 5.0 U
		Apr-10			**240**	**< 50 U**	**9300**	< 50 U	**710**	< 50 U	**130**	**< 50 U**	120 J	440	**< 50 U**
		Oct-10			**250**	**< 50 U**	**14000**	< 50 U	600	< 50 U	**130**	**< 50 U**	140	450	**< 50 U**
	MW-107	Sep-09			**320**	**89**	**14000**	< 5.0 U	**1400**	**7400**	**190**	< 5.0 U	36	570	< 5.0 U
		Mar-10			**300**	**58**	**10000 J**	< 5.0 U	**1000**	**5800 J**	**150**	< 5.0 U	35	490	< 5.0 U
		Nov-10			**250**	**52**	**11000**	< 5.0 U	**1000**	**4600**	**140**	< 5.0 U	39	460	< 5.0 U
	RW-4	Apr-10			7.1	< 5.0 U	**280**	< 5.0 U	< 5.0 U	**2500**	< 5.0 U	< 5.0 U	5.3 J	36	< 5.0 U

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				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
				Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
				CGWSL:	15	12	5	70	700	125	30	5	750	620	5
				CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**												
S Refinery (continued)	RA-313	Mar-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08	FD	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	RA-1227	Nov-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Nov-10	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
Field E of Refinery	KWB-1A	Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	KWB-3AR	Apr-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08	FD	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	KWB-7	Apr-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	**160**	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	**140**	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	59	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	42	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	34	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	22	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	KWB-9	Apr-08		< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-08	FD	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	KWB-11A	Apr-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	19	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	11	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	12	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	24	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	6.5	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	KWB-11B	Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
				Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
				CGWSL:	15	12	5	70	700	125	30	5	750	620	5
				CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**												
Field E of Refinery (continued)	KWB-12A	Sep-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	KWB-12B	Oct-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	RW-11-1	Nov-10			5.0	< 5.0 U	160	< 5.0 U	24	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	RW-18	Apr-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	RA-4196	Mar-08			< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 5.0 J	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	7.1	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	5.4	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	6.2	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Nov-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	6.4	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	RA-4798	Mar-08			< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	5.0	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	18	< 5.0 U	< 5.0 U	< 5.0 J	< 15 U	< 5.0 U
		Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Nov-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	12	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
Crossgradient	KWB-13	Apr-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09	FD		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	NP-5	Apr-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	RA-3156	Mar-08			< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 5.0 J	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Nov-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

			Analyte Group:	**Volatile Organic Compounds**									
			Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
			Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			CGWSL:	15	12	5	70	700	125	30	5	750	620	5
			CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**											
Upgradient	MW-53	Apr-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	UG-1	Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10				< 5.0 U		< 5.0 U	< 5.0 U			< 5.0 U	< 15 U	
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	UG-2	Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10				< 5.0 U		< 5.0 U	< 5.0 U			< 5.0 U	< 15 U	
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	UG-3R	Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10				< 5.0 U		< 5.0 U	< 5.0 U			< 5.0 U	< 15 U	
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Cyanide	Cations/Anions						Water Quality		
				Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
				Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
				CGWSL:	200		250	1.6			600		1000	
				CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**											
NCL	MW-18	Apr-08				318	163	0.899	1.08	71.1	**1220**	443		16.3
		Sep-08				402	168	1.06	2.19	79.7	**1410**	365	**3240**	21.4
		Apr-09				344	177	0.721	1.45	76.9	**1240**	399	**2690**	13.7
		Sep-09					173	0.713			**1160**	430	**2680**	11.2
		Mar-10				372 UB	178 UB	1.03	1.70	92.1	**1330**	391	**2850**	14.7
		Oct-10			< 20.0 U	328 J	207	0.981	1.56	91.7	**1110**		**2650**	14
	MW-54A	Apr-08				378	**287**	0.836	0.285	47.1	**767**	535		< 1.00 J
		Sep-08				481	**277**	1.22	0.471	50.5	**764**	504	**2590**	5.89
		Apr-09				384	**286**	0.668	< 0.400 J	48.4	**754**	520	**2230**	< 0.500 J
		Oct-09					249	0.768			**779**	408	**2240**	< 0.500 J
		Oct-09	FD				**262**	0.797			**758**	504	**2280**	< 0.500 U
		Apr-10				408 UB	226 UB	1.09	< 1.00 U	67.5 UB	**843**	497	**2380**	2.83
		Oct-10				343	205	1.00	< 2.00 U	57.2	**671**		**1980**	< 0.100 U
	MW-54B	Apr-10				318 UB	153 UB	0.492	< 1.00 U	47.6 UB	**808**	388	**2080**	< 0.500 U
	MW-108	Oct-09					120	**4.93**			**978**	593	**2580**	0.544
		Mar-10				350 UB	161 UB	**4.24**	0.878	111 UB	**1150**	601	**2610**	< 0.500 U
		Apr-10				258 UB	90.8	1.42	4.18	48.3 UB	358	676	**1610**	< 0.500 U
		Oct-10				436	191	**3.92**	6.18	185	**1510**		**3340**	< 1.0 U
	NCL-31	Mar-10				369 UB	176 UB	1.34	0.441	190 UB	**1480**	591	**3000**	< 0.500 U
		Oct-10				278	179	1.52	< 1.00 U	187	**859**		**2250**	< 0.10 U
	NCL-32	Apr-08				431	176	**1.74**	7.42	61.6	**1060**	387		< 1.00 J
		Sep-08				1170	234	1.57	5.51	62.4	**1280**	355	**2470**	< 0.500 J
		Sep-08	FD			972	231	**1.71**	9.37	68.6	**1210**	656	**2730**	< 0.500 J
		Apr-09				453	204	1.49	5.83	64.8	**1130**	386	**2560**	< 0.500 J
		Sep-09					198	**2.54**			**1100**	290	**2540**	< 1.00 J
		Mar-10				1570	97.5 UB	**1.95**	36.6	80.4	**715**	190	**1920**	< 0.500 U
		Oct-10				423	43.4	**2.40**	21.6	26.1 UB	**840**		**1680**	4.9
	NCL-33	Apr-08				388	**473**	**2.25**	3.88	79.1	**824**	528		< 0.100 U
		Sep-08				546	**516**	**1.94**	4.39	99.7	**767**	523	**2720**	1.15
		Apr-09				476	**511**	**2.22**	4.06	94.4	**937**	483	**3160**	1.03
		Sep-09					**468**	**2.40**			**882**	450	**3010**	< 1.00 J
		Mar-10				450 UB	**462**	**2.46**	4.02	88.0	**645**	536	**2480**	< 0.500 U
		Oct-10				472	**383**	**2.59**	5.20	99.5 UB	**732**		**2420**	0.12 J
	NCL-34	Apr-08				205	**268**	1.27	1.04	98.2	155	582		< 0.100 U
		Apr-08	FD			196	**263**	1.28	1.17	110	161	592		< 0.100 U
		Sep-08				216	213	1.03	0.911	99.8	142	694	**1270**	< 0.500 J
		Apr-09				256	**434**	**2.22**	1.75	112	134	570	**1860**	1.03
		Sep-09					**379**	1.28			128	550	**1890**	< 1.00 J
		Mar-10				188 UB	187	1.30 J	1.16 J	103 UB	121 J	667	**1190 J**	< 0.500 U
		Mar-10	FD			381 UB	162 UB	**4.60 J**	0.961 J	119 UB	**1170 J**	576	**2800 J**	< 0.500 U
		Oct-10				276	**410**	1.52	1.93	112 UB	148		**1460**	0.18
		Oct-10	FD			253 UB	**435**	1.52	2.09	107	139		**1670**	0.29

Table 4 - Summary of Groundwater Analytical Data

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Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Cyanide	Cations/Anions						Water Quality		
				Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
				Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
				CGWSL:	200		250	1.6			600		1000	
				CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**											
NCL (continued)	NCL-44	Apr-08				227	181	1.54	1.96	56.1	487	568		< 1.00 J
		Sep-08				282	169	1.49	2.09	60.4	485	591	**1700**	< 0.500 J
		Apr-09				268	171	1.35	1.95	54.5	496	630	**1800**	< 0.500 J
		Sep-09					185	1.40			469	550	**1710**	< 1.00 J
		Mar-10				267 UB	166 UB	1.55	2.08	57.3	476	546	**1680**	< 0.500 U
		Oct-10				264	168	**1.67**	2.18	61.5 UB	443		**1620**	< 0.10 U
	NCL-49	Apr-08				431	170	0.404	0.696	115	**1760**	232		12.4
		Sep-08				464	166	0.567	0.730	122	**1720**	242	**3310**	10.1
		Sep-08	FD			442	164	0.583	0.678	120	**1700**	241	**3260**	9.65
		Apr-09				461	165	< 0.500 J	0.708	117	**1720**	260	**3180**	9.65
		Apr-09	FD			457	163	< 0.500 J	0.707	115	**1720**	202	**3210**	9.29
		Oct-09					152	0.561			**1630**	224	**3190**	9.33
		Apr-10				443	134 UB	0.486	< 1.00 U	120 UB	**1720**	229	**3130**	8.94
		Oct-10				409	134	0.641	< 2.00 U	106	**1590**		**2900**	5.42
	RW-17A	Mar-10				459 UB	**494 UB**	**2.61**	5.40	376	**3320**	526	**6680**	< 0.500 U
TEL	TEL-1	Apr-08				461	231	**1.99**	1.14	308	**1610**	495		< 0.100 U
		Sep-08				494	147	**2.75**	1.95	261	**1850**	421	**3860**	< 0.500 J
		Apr-09				214	249	**1.96**	0.805	444	**919**	582	**2590**	< 0.150 U
		Apr-09	FD			205	**251**	**1.93**	1.00	462	**908**	618	**2560**	< 0.500 J
		Sep-09					126	**2.14**			507	640	**2850**	< 1.00 J
		Apr-10				542	170 UB	**2.59**	1.75	278	**2150**	382	**4120**	< 0.500 U
		Oct-10				267	**256**	**2.24**	1.10	425	**967**		**2660**	< 10.0 U
	TEL-2	Apr-08				149	**378**	0.746	1.04	356	464	816		< 0.100 U
		Apr-08	FD			168	**373**	0.737	1.12	406	462	937		< 0.100 U
		Sep-08				239	**380**	0.897	1.42	379	**872**	931	**3290**	< 0.500 J
		Apr-09				224	**392**	0.562	1.19	384	**825**	825	**3040**	< 0.150 U
		Sep-09					**411**	0.900			**737**	930	**3030**	< 1.00 J
		Apr-10				304 UB	**278 UB**	0.833	2.54	337	**1130**	864	**3440**	< 0.500 U
		Oct-10				219	188	1.07	1.44	320	**746**		**2570**	0.293
	TEL-3	Apr-08				582	**263**	**2.46**	4.38	188	**1560**	526		< 0.100 U
		Apr-09				304	**597**	**2.06**	3.92	325	580	698	**2660**	< 0.500 J
		Sep-09					34.2	**2.93**			**1520**	400	**3180**	< 1.00 J
		Apr-10				570	14.2	**2.92**	5.27	28.3	**1640**	372	**2900**	< 0.500 U
		Apr-10	FD			546	14.0 UB	**2.89**	5.52	31.8	**1530**	342	**2860**	< 0.500 U
		Oct-10				568	8.82	**3.14**	6.99	16.1 UB	**1300**		**2530**	< 10.0 U
	TEL-4	Apr-08				201	**435**	0.614	0.511	235	472	891		< 0.100 U
		Sep-08				231	**375**	0.787	0.440	199	495	729	**2180**	< 0.500 J
		Apr-09				274	**508**	< 0.500 J	0.593	219	**680**	689	**2570**	< 0.150 U
		Sep-09					**595**	0.615			**844**	920	**3220**	< 1.00 J
		Apr-10				339 UB	**523**	0.602	0.538	311	**957**	774	**3400**	< 0.500 U
		Oct-10				270	**414**	0.787	< 1.00 U	251	556		**2370**	< 0.100 U

Table 4 - Summary of Groundwater Analytical Data

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Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Cyanide	Cations/Anions						Water Quality		
				Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
				Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
				CGWSL:	200		250	1.6			600		1000	
				CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	Location	Date	Dup											
EP	MW-1R	Apr-08				637	1830	< 1.00 J	4.50	991	1800	241	6340	< 0.100 U
		Sep-08				525	2130	0.748	5.80	1170	2000	291		< 0.200 J
		Apr-09				646	1830	0.515	3.62	1150	1840	167	6240	< 0.500 J
		Sep-09					1690	0.612			1850	198	5960	< 1.00 J
		Apr-10				576	1640	0.591	4.24	946 UB	1900	207	6040	< 0.500 U
	MW-2A	Apr-08				614	6200	5.75	5.64	3850	4460	490	15900	< 1.00 J
		Sep-08				685	7740	5.57	6.97	4370	5710	555	18000	< 0.500 J
		Apr-09				562	3750	4.74	5.34	2550	2960	335	10400	0.712
		Apr-09				478	3230	2.64	9.23	2540	4960	523	12800	< 0.150 U
		Sep-09					2020	5.45			1980	207	6900	< 1.00 J
		Apr-10				722	4780	4.16	5.85	3680	3940	378	6290	< 0.500 U
		Oct-10				664	3710	20.3	6.74	3010 UB	3550		10200	< 0.100 U
		Oct-10	FD			618	3480 J	20.0	6.37	2830 UB	3370 J		10100 J	< 0.100 U
	MW-2B	Apr-10				470 UB	586 UB	0.933	3.08	441 UB	1160 UB	168		< 0.500 U
	MW-3	Apr-08				485	1060	1.57	3.99	807	2090	279	5110	< 0.100 U
		Sep-08				533	1190	2.07	4.33	772	2440	266	5220	< 0.500 J
		Apr-09				517	1090	1.91	4.26	730	2260	236	4960	< 0.500 J
		Sep-09					976	2.11			1870	236	4700	< 1.00 J
		Apr-10				578	906 UB	1.94 J	3.82	838 UB	2030 UB	209	4850	< 0.500 U
		Oct-10				454 UB	894	2.31	5.59	676 UB	1580		4360	< 0.100 UJ
	MW-4A	Apr-08				354	1200	1.59	3.85	770	1650	225	4640	< 0.100 U
		Apr-08	FD			366	1210	1.55	3.84	808	1650	221	4690	< 1.00 J
		Sep-08				375	1210	1.79	4.62	841	1410	223	4520	< 0.500 J
		Apr-09				352	1180	1.55	5.33	725	1540	216	4540	< 0.500 J
		Sep-09					1280	1.65			1570	222	4710	< 1.00 J
		Apr-10				408 UB	1150 UB	1.70	5.00	778 UB	1700	251	4500	< 0.500 U
		Apr-10	FD			372 UB	1190 UB	1.61	4.48	718 UB	1780	253	4960	< 0.500 U
		Oct-10				443 UB	1310 J	18.9	5.74	955 UB	1700 J		4660 J	< 0.100 UJ
	MW-4B	Apr-10				298 UB	1010	0.757	2.36	612 UB	1200	207	3470	< 0.500 U
	MW-5A	Apr-08				1040	3630	2.34	16.2	4150	5760	784	16300	< 0.100 U
		Sep-08				524	4730	2.50	14.9	3090	7440	467	16000	< 0.500 J
		Sep-09					3360	2.71			5160	414	13200	< 1.00 J
		Sep-09	FD				3320	2.70			5160	419	16400	< 1.00 J
		Apr-10				483	4010	2.34	7.92	3340	7050	497	15200	< 0.500 U
		Oct-10				584	2760	18.7	10.4	3310 UB	4660		10700	< 0.100 U
	MW-5B	Apr-10				540	1720	0.852	9.18	1660	2740	358	7900	< 0.500 U
	MW-6A	Apr-08				247	863	1.36	1.17	761	1550	169	3770	< 0.100 U
		Sep-08				225	883	1.60	1.37	663	1680	149	3850	< 0.500 J
		Apr-09				294	864	1.35	1.32	733	1510	148	3720	< 0.500 J
		Sep-09					876	1.32			1410	130	3680	< 1.00 J
		Apr-10				316 UB	963 UB	1.33	1.20	770 UB	1540 UB	136	3700	< 0.500 U
	MW-6B	Apr-10				447 UB	1290 UB	0.544	4.22	694 UB	1530 UB	104	4570	< 0.500 U

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				Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
				Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
				CGWSL:	200		250	1.6			600		1000	
				CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**											
EP (continued)	MW-7A	Apr-08				377	**1970**	1.02	4.03	1600	**2420**	267	**7890**	< 0.100 U
		Sep-08				398	**2440**	1.17	5.11	1540	**2980**	297	**7390**	< 0.500 J
		Apr-09				434	**1980**	0.972	4.02	1820	**2450**	455	**6880**	< 0.150 U
		Sep-09					**1960**	1.10			**2430**	246	**7580**	< 1.00 J
		Apr-10				341 UB	**1850**	1.16	4.07	1560 UB	**2510**	278	**6580**	< 0.500 U
		Oct-10				393 UB	**1570**	**16.5**	4.19	1630 UB	**2080**		**6330**	< 0.100 U
	MW-7B	Apr-10				574	**1230**	0.913	6.42	890 UB	**1910**	189	**5030**	< 0.500 U
	MW-10	Apr-08				434	**1440**	< 1.00 J	3.65	908	**1930**	255	**5400**	< 0.100 U
		Sep-08				546	**1370**	0.702	3.48	1010	**1900**	256	**5610**	< 0.500 J
		Apr-09					**1370**	0.519	5.69	928	**1880**	216	**5260**	< 0.500 J
		Sep-09					**1680**	0.596			**1900**	236	**5530**	< 1.00 J
		Apr-10				516	**1340 UB**	0.517	3.22	1060 UB	**1940**	249	**5150**	< 0.500 U
		Oct-10				568 UB	**1160**	0.730	3.70	977	**1710**		**5060**	< 1.00 U
	MW-11A	Apr-08				967	**9040**	< 1.00 J	20.2	4120	**3020**	431	**20300**	< 0.100 U
		Sep-08				1030	**9020**	< 0.500 J	22.0	4410	**3110**	392	**20700**	0.540
		Apr-09				1160	**9040**	0.503	21.2	4930	**2820**	416	**18000**	< 0.500 J
		Sep-09					**9290**	0.698			**2850**	366	**19100**	< 1.00 J
		Apr-10				1160	**8570**	0.710	20.5	4890	**2980**	418	**17400**	< 0.500 U
		Apr-10	FD			1130	**8300**	0.675	21.9	4810	**2880**	398	**17600**	< 0.500 U
	MW-11B	Apr-10				862	**6250**	0.723	34.4	3680 R	**3020**	259	**14500**	< 0.500 U
	MW-15	Apr-08				587	**1370**	**1.84**	6.19	773	**2170**	184	**5710**	< 0.100 U
		Sep-08				511	**1100**	**2.93**	6.12	794	**1870**	182	**4920**	< 0.500 J
		Apr-09				621	**1280**	**3.43**	7.25	806	**2070**	167	**5290**	< 0.150 U
		Sep-09					**1500**	1.22			**1970**	111	**5830**	< 1.00 J
		Apr-10				650	**1280 UB**	**4.01**	7.74	816 UB	**2150**	199	**5520**	< 0.500 U
	MW-18A	Apr-08				678	**5490**	**1.72**	36.7	4040	**4530**	350	**19100**	< 0.100 U
		Sep-08				709	**7950**	**2.85**	39.3	4160	**6370**	340	**18800**	< 0.500 J
		Apr-09				649	**5410**	**2.41**	31.3	3530	**5000**	372	**15600**	< 0.150 U
		Sep-09					**6130**	**2.32**			**5180**	308	**16400**	< 1.00 J
		Apr-10				727	**5220**	1.16	35.6	3810	**5250**	328	**13800**	< 0.500 U
		Oct-10		< 20.0 U		680 UB	**6000**	**19.3**	43.2	3630 UB	**5480**		**14400**	< 0.100 U
	MW-18B	Apr-10				604	**1060 UB**	0.636	6.34	701 UB	**2060**	199	**5110**	< 0.500 U
	MW-22A	Apr-08				445	**1740**	0.673	3.52	1060	**1940**	226		1.33
		Sep-08				554	**1800**	0.586	3.25	1280	**2010**	229	**6300**	< 0.500 J
		Apr-09				565	**1750**	0.561	3.64	1320	**1920**	196	**5780**	< 0.500 J
		Sep-09					**1810**	0.517			**2040**	217	**6430**	< 1.00 J
		Apr-10				474	**1650**	0.344	3.45	1140 UB	**2030**	219	**6070**	< 0.500 U
		Apr-10	FD			469	**1620**	0.360	3.51	1140 UB	**1960**	229	**5860**	< 0.500 U
		Oct-10												
	MW-22B	Apr-10				485	**1310 UB**	0.364	3.71	972 UB	**1910**	249	**5380**	< 0.500 U

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Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Cyanide	Cations/Anions						Water Quality		
				Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
				Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
				CGWSL:	200		250	1.6			600		1000	
				CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**											
EP (continued)	MW-70	Apr-08				668	**1040**	0.726	4.33	673	**1910**	246	**5210**	< 1.00 J
		Sep-08				661	**1100**	0.731	4.54	633	**1990**	234	**5260**	< 0.500 J
		Sep-08	FD			668	**1160**	0.720	4.46	647	**2090**	237	**5030**	< 0.500 J
		Apr-09				647	**1100**	< 0.500 J	4.38	637	**2010**	264	**4990**	< 0.150 U
		Sep-09					**1050**	0.606			**1970**	217	**5390**	< 1.00 J
		Apr-10				651	**838 UB**	0.481	4.79	663 UB	**1760**	209		< 0.500 U
		Oct-10												
	MW-72	Apr-08				658	**3730**	**6.54**	8.36	2110	**3080**	406	**11000**	< 1.00 J
		Sep-08				882	**3970**	**5.61**	10.0	2580	**3140**	369		< 0.500 J
		Mar-09				762	**3800**	**5.84**	8.88	2130	**2760**	317	**10600**	< 0.500 J
		Sep-09					**4050**	**5.36**			**2820**	228	**10800**	< 1.00 J
		Apr-10				904	**3790**	**5.88**	9.30	2540	**2860**	368	**9710**	< 0.500 U
		Oct-10				666 UB	**2940**	**5.92**	8.78	1950	**2370**		**8530**	< 1.00 U
	MW-73	Apr-08				546	**2450**	**1.87**	2.70	2070	**3930**	536	**10300**	< 1.00 J
		Sep-08				600	**2360**	< 1.00 J	2.40	2330	**3700**	514		< 0.500 J
		Mar-09				571	**2410**	**2.06**	2.20	2040	**3770**	452	**10200**	< 0.500 J
		Sep-09					**2290**	**3.38**			**3570**	402	**9130**	1.44
		Apr-10				699	**2190**	**3.85 J**	3.81	2710	**3640**	447	**9390**	1.26
		Oct-10				633 UB	**1920**	**1.96**	2.60	2170	**3250**		**8920**	< 0.100 UJ
	MW-74	Apr-08				519	**2100**	**8.60**	37.6	1770	**3320**	388	**8480**	< 1.00 J
		Sep-08				612	**2360**	**7.41**	35.8	1920	**3720**	403		< 0.500 J
		Mar-09				636	**2060**	**8.53**	36.2	1930	**3270**	360	**8140**	0.552
		Sep-09					**2050**	**8.73**			**3240**	373	**8610**	3.16
		Apr-10				683	**1960**	**8.49**	35.3	2270	**3440**	388	**8920**	13.9
		Apr-10	FD			655	**1950**	**8.01**	34.4	2250	**3450**	368	**8820**	13.8
		Oct-10				643	**1810**	**23.3**	47.8	2410 UB	**3330**		**8670**	< 0.100 U
	MW-75	Apr-08				339	**1600**	**8.43**	25.8	1400	**2050**	623	**6260**	< 0.100 U
		Sep-08				418	**1670**	**8.44**	23.7	1610	**2180**	630		< 0.200 J
		Mar-09				340	**1480**	**9.93**	21.5	1510	**2020**	509	**5840**	< 0.500 J
		Sep-09					**1500**	**8.48**			**1840**	591	**5900**	< 1.00 J
		Sep-09	FD				**1550**	**8.46**			**1910**	581	**5800**	< 1.00 J
		Apr-10				444 UB	**1450 J**	**8.66 J**	20.0 J	1890 J	**1940**	626 J	**6060 J**	< 0.500 U
		Oct-10				421 UB	**1310**	**21.7**	19.7	1760 UB	**1930**		**5330**	< 0.100 U
	MW-76	Apr-08				369	**1210**	**3.35**	28.1	938	**2010**	301	**5630**	< 1.00 J
		Sep-08				510	**1510**	**3.61**	26.3	1120	**2300**	323		< 0.200 J
		Mar-09				415	**1400**	**3.32**	25.2	949	**1960**	266	**5460**	0.724
		Sep-09					**1310**	**3.22**			**2000**	344	**5710**	< 1.00 J
		Apr-10				418 UB	**1380 UB**	**3.24**	28.1	1010 UB	**2030 UB**	288	**5320**	< 0.500 U
		Oct-10				389 UB	**1220**	**2.72**	28.4	904 UB	**1640**		**4850**	< 0.100 U
	MW-77	Apr-08				382	**1620**	**3.30**	29.8	1130	**2110**	412	**6520**	< 1.00 J
		Sep-08				651	**1600**	**2.30**	51.0	1650	**2750**	659		< 0.200 J
		Mar-09				439	**1580**	**2.76**	43.3	1210	**2420**	463	**6460**	< 0.200 J
		Sep-09					**1510**	**2.53**			**2310**	494	**6080**	< 1.00 J
		Apr-10				505	**1410 UB**	**2.15**	55.2	1330 UB	**2810**	517	**6920**	< 0.500 U
		Oct-10		< 100 U		452 UB	**1170**	1.37	62.3	1140 UB	**2200**		**2340**	< 0.100 U

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Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Cyanide	Cations/Anions						Water Quality		
				Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
				Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
				CGWSL:	200		250	1.6			600		1000	
				CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**											
EP (continued)	MW-78	Apr-08				360	**1590**	**4.90**	27.9	1120	**1970**	378	**6290**	< 0.100 U
		Sep-08				349	**1680**	**6.16**	28.6	1160	**2010**	344		< 0.200 J
		Mar-09				372	**1110**	**8.38**	21.9	835	**2000**	443	**5420**	< 0.200 J
		Sep-09					**1080**	**11.1**			**1760**	358	**5030**	< 1.00 J
		Apr-10				369 UB	**622**	**15.2**	22.1	650 UB	**2150**	557	**5120**	1.06
	MW-79	Apr-08				336	**1800**	**13.2**	9.30	1310	**2210**	292	**6620**	< 1.00 J
		Sep-08				454	**1940**	**10.7**	10.9	1490	**2120**	259		0.489
		Mar-09				562	**2120**	**11.4**	10.1	1490	**2230**	246	**6600**	0.762
		Mar-09	FD			606	**2290**	**11.4**	11.3	1690	**2460**	216	**6680 H**	0.760
		Sep-09					**2170**	**10.2**			**2180**	218	**7770**	< 1.00 J
		Apr-10				684	**2230**	**10.0**	10.5	1630 UB	**2410**	219	**6670**	1.13
		Oct-10				804 UB	**1790**	**9.62**	10.7	1540	**2160**		**6530**	2.00
	MW-80	Apr-08				495	**1720**	**4.01**	4.02	1040	**2210**	248	**6270**	< 1.00 J
		Mar-09				535	**1300**	**4.75**	3.56	1200	**1900**	207	**5110**	0.809
		Sep-09					**1340**	**4.28**			**1930**	184	**5650**	< 1.00 J
		Apr-10				720	**1330 UB**	**3.70**	3.54	1060 UB	**2130**	164	**5750**	< 0.500 U
	MW-81	Apr-08				497	**1370**	**9.58**	7.67	862	**2030**	251	**5600**	2.78
		Sep-08				518	**1450**	**7.64**	8.19	870	**1990**	249		6.23
		Mar-09				566	**1490**	**8.92**	8.81	1060	**2260**	286	**6140**	21.6
		Sep-09					**1290**	**8.55**			**1990**	218	**4990**	4.57
		Apr-10				625	**1240 UB**	**8.55**	8.77	1380 UB	**2250**	268	**5790**	25.7
	MW-82	Apr-08				245	**1450**	**12.0**	8.22	1340	**2280**	798	**6500**	< 1.00 J
		Apr-08	FD			304	**1340**	**3.21**	18.5	828	**1510**	670	**5230**	< 1.00 J
		Sep-08				387	**1410**	**10.8**	8.11	1790	**2390**	794		< 0.200 J
		Sep-08	FD			412	**1560**	**10.5**	8.80	1850	**2620**	846		< 0.200 J
		Mar-09				348	**1460**	**13.1**	8.91	1630	**2380**	852	**6320**	< 0.500 J
		Sep-09					**1480**	**13.4**			**2420**	718	**7090**	< 1.00 U
		Apr-10				382 UB	**1530 UB**	**11.0**	8.25	1930	**2390**	994	**6320**	< 0.500 U
	MW-83	Apr-08				290	**1350**	**3.19**	19.8	794	**1530**	548	**5310**	< 0.100 U
		Sep-08				403	**1280**	**3.86**	20.6	968	**1970**	516		0.220
		Mar-09				339	**1180**	**4.03**	29.2	946	**1840**	502	**5050**	< 0.500 J
		Sep-09					**715**	**4.32**			**2950**	655	**6690**	< 1.00 J
		Apr-10				334 UB	**1020 UB**	**3.55**	34.8	936 UB	**2410**	527	**5490**	< 0.500 U
		Oct-10				433 UB	**440**	**4.73 J**	51.5	694 UB	**2940**		**17300**	2.96
	MW-84	Apr-08				495	**1930**	**4.36**	8.11	1200	**3550**	418	**9200**	< 1.00 J
		Sep-08				653	**1590**	**4.30**	7.81	1450	**3580**	449		< 0.500 J
		Mar-09				608	**1770**	**4.84**	6.64	1400	**3490**	561	**8470**	< 0.500 J
		Sep-09					**2010**	**4.84**			**3780**	434	**8380**	< 1.00 J
		Apr-10				622	**1580 UB**	**6.79**	7.51	1560 UB	**4100**	487	**9060**	< 0.500 U
		Oct-10												

Table 4 - Summary of Groundwater Analytical Data
2010 Groundwater Report
Navajo Refinery, Artesia, New Mexico

		Analyte Group:	Cyanide	Cations/Anions						Water Quality		
		Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
		Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
		CGWSL:	200		250	1.6			600		1000	
		CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**									
EP (continued)	MW-87	Apr-09			677	**4340**	1.52	23.1	2670	**4110**	255	**14300**	< 0.500 J
		Sep-09				**4290**	**1.67**			**4300**	270	**13000**	< 1.00 J
		Apr-10			697	**4100**	0.913	23.3	3120	**4260**	268	**11600**	< 0.500 U
		Apr-10	FD		616	**4310 J**	0.840 J	22.7 J	2770 J	**4640 J**	278	**3320 J**	< 0.500 U
		Oct-10											
		Oct-10	FD										
	MW-88	Apr-08			558	**1740**	1.04	3.14	1390	**2230**	228	**6440**	< 0.100 U
		Sep-08			441	**1450**	0.944	3.70	1070	**1990**	239	**5530**	< 0.500 J
		Apr-09			374	**1470**	0.733	3.79	1010	**1890**	201	**5580**	0.595
		Apr-09	FD		392	**1500**	0.765	2.94	1030	**1990**	192	**6500**	< 0.500 J
		Sep-09				**1370**	0.814			**1800**	207	**5380**	< 1.00 J
		Sep-09	FD			**1370**	0.818			**1800**	212	**5390**	< 1.00 J
		Apr-10			409 UB	**1370 UB**	0.917	3.21	1080 UB	**1910**	219		< 0.500 U
		Oct-10											
	OCD-1R	Apr-08			655	**2340**	**5.59**	5.47	1560	**2480**	251	**7800**	< 0.100 U
		Sep-08			576	**4270**	**5.18**	6.29	2340	**3670**	272	**12000**	< 0.500 J
		Apr-09			569	**2170**	**5.26**	5.21	1220	**2220**	172	**6220**	< 0.500 J
		Apr-10			668	**2720**	**4.93**	5.09	1920	**2740**	268	**5760**	< 0.500 U
		Oct-10											
	OCD-2A	Apr-08			458	**1760**	< 1.00 J	3.48	1140	**2380**	227	**6850**	< 0.100 U
		Sep-08			507	**2020**	1.02	3.88	1050	**2460**	182	**6760**	0.624
		Mar-09	FD		656	**2270**	0.776	4.81	1390	**2650**	236	**6980 H**	0.714
		Apr-09			590	**2360**	0.811	4.09	1250	**2770**	175	**7080**	< 0.500 J
		Sep-09				**1570**	0.718			**1770**	169	**5380**	< 1.00 J
		Apr-10			604	**1910**	1.11	2.94	1430 UB	**2770**	259	**7030**	< 0.500 U
		Oct-10											
	OCD-2B	Apr-10			676	**1420**	0.757	5.53	776 UB	**1860**	128		< 0.500 U
	OCD-3	Apr-08			604	**1890**	< 1.00 J	14.1	1360	**2380**	279	**7190**	< 0.100 U
		Apr-08	FD		494	**1710**	0.937	13.3	1220	**2180**	259	**6720**	< 0.100 U
		Sep-08			434	**1700**	1.03	13.8	1100	**2290**	223	**6260**	< 0.500 J
		Apr-09			426	**1010**	0.783	12.9	596	**1350**	125	**3700**	< 0.500 J
		Sep-09				**958**	0.949			**1490**	130	**4120**	< 1.00 J
		Apr-10			562	**1410**	0.896	12.6	1100 UB	**2150**	219	**5640**	< 0.500 U
		Oct-10											
	OCD-4	Apr-08			832	**4540**	< 0.100 U	35.2	2550	**2660**	205	**12500**	< 0.100 U
		Sep-08			674	**4780**	< 0.0500 U	37.5	2550	**2680**	228	**13100**	< 0.500 J
		Apr-09			777	**4630**	0.595	35.4	2380	**2910**	161	**10800**	< 0.500 J
		Sep-09				**4590**	0.723			**2770**	193	**10800**	< 1.00 J
		Apr-10			868	**4630**	0.780	35.5	2890	**2910**	229	**11600**	< 0.500 U
		Oct-10											

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Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Cyanide	Cations/Anions						Water Quality		
				Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
				Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
				CGWSL:	200		250	1.6			600		1000	
				CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**											
EP (continued)	OCD-5	Apr-08				746	**4720**	< 0.100 U	31.9	2710	**2640**	217	**12900**	< 0.100 U
		Sep-08				621	**5710**	< 0.500 J	28.8	2560	**3360**	277	**12600**	< 0.500 J
		Apr-09				789	**4950**	0.614	32.8	2820	**2990**	184	**11600**	< 0.500 J
		Sep-09					**4690**	0.754			**2890**	217	**12600**	< 1.00 J
		Apr-10				878	**4580**	0.775	29.2	3170	**2880**	199	**12100**	< 0.500 U
		Oct-10												
	OCD-6	Apr-08				614	**3510**	**3.37**	10.2	2720	**3560**	380	**11400**	< 0.100 U
		Sep-08				594	**4130**	**2.44**	12.6	2470	**3900**	648	**11700**	< 0.500 J
		Apr-09				599	**3480**	**3.22**	11.6	2710	**3270**	566	**11400**	< 0.500 J
		Sep-09					**3680**	**3.29**			**3170**	564	**11300**	< 1.00 J
		Apr-10				773	**3660**	**3.15**	13.1	3310	**2960**	487	**10400**	< 0.500 U
		Oct-10												
	OCD-7A	Apr-08				541	**2260**	**4.73**	7.13	1930	**3230**	283	**9120**	< 0.100 U
		Sep-08				614	**2560**	**4.80**	7.49	2060	**3690**	605	**9350**	< 0.500 J
		Apr-09				550	**2170**	**4.57**	7.16	2000	**3050**	601	**9210**	0.673
		Sep-09					**2200**	**4.32**			**3280**	540	**9530**	< 1.00 J
		Sep-09	FD				**2160**	**4.41**			**3220**	554	**9890**	< 1.00 J
		Apr-10				719	**2010**	**4.12**	6.86	2690	**3210**	597	**8740**	< 0.500 U
		Oct-10												
	OCD-7B	Apr-10				642	**676 UB**	1.00	10.7	841 UB	**2330**	193	**4900**	< 0.500 U
		Apr-10	FD			628	**688 UB**	1.03	10.9	832 UB	**2380**	189	**4780**	< 0.500 U
	OCD-8A	Apr-08				662	**2530**	**2.81**	7.37	2360	**3320**	525	**10200**	< 0.100 U
		Sep-08				515	**3150**	**2.11**	10.6	2260	**4130**	551	**10600**	< 0.500 J
		Sep-08	FD			511	**3430**	**2.07**	10.8	2200	**4380**	607	**11000**	< 0.500 J
		Apr-09				573	**2700**	**2.84**	7.88	2220	**3380**	499	**9550**	< 0.150 U
		Sep-09					**2880**	**3.40**			**3840**	520	**10100**	< 1.00 J
		Apr-10				576	**2270**	**2.87**	7.73	2100	**3420**	527	**8930**	< 0.500 U
		Oct-10		< 20.0 U										
	OCD-8B	Apr-10				637	**2040**	0.803	8.18	1450 UB	**2810**	259	**7940**	< 0.500 U
TMD	MW-8	Apr-08				322	**260**	**2.21**	1.48	299	**1910**	279	**3580**	< 1.00 J
		Sep-08				392	**283**	**1.92**	1.64	328	**2070**	290	**4150**	0.989
		Apr-09				359	**344**	**1.89**	1.53	275	**2570**	296	**4380**	3.21
		Oct-09					**425**	**2.02**			**2690**	293	**5350**	12.2
		Apr-10				468 UB	**326 UB**	**1.94**	1.57	399 UB	**2680**	298	**4760**	5.69
		Oct-10				513 UB	**472**	**3.41**	2.11	422	**2850**		**5140**	16.3
	MW-16	Apr-08				526	**627**	**2.11**	9.76	449	**2390**	295	**5140**	< 0.100 U
		Sep-08				471	**526**	**2.08**	9.83	426	**2240**	290		< 0.200 J
		Apr-09				528	**502**	**2.12**	8.10	434	**2280**	249	**4740**	0.577
		Apr-09	FD			549	**521**	**2.15**	8.80	442	**1990**	296	**4830**	0.579
		Sep-09					**495**	**2.01**			**2350**	262	**4510**	< 1.00 J
		Apr-10				481	**418 UB**	**2.26**	8.47	355 UB	**2320**	271	**4500**	< 0.500 U

Table 4 - Summary of Groundwater Analytical Data

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Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Cyanide	Cations/Anions						Water Quality		
				Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
				Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
				CGWSL:	200		250	1.6			600		1000	
				CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**											
TMD (continued)	MW-20	Apr-08				441	**431**	**2.45**	0.611	282	**3080**	312		2.63
		Sep-08				495	**398**	**2.14**	0.685	290	**3150**	295	**5880**	2.33
		Apr-09				494	**353**	**2.32**	0.632	290	**3120**	277	**5480**	2.12
		Oct-09					**301**	**2.46**			**3000**	273	**5710**	1.50
		Apr-10				525	**279 UB**	**2.51**	< 1.00 U	301 UB	**3170**	269	**5170**	0.811
	MW-21	Apr-08				391	**393**	1.28	1.82	380	**2880**	314	**5250**	5.08
		Sep-08				559	**391**	**1.74**	2.00	489	**2980**	328	**5690**	7.49
		Apr-09				556	**482**	**1.71**	1.92	479	**3150**	301	**5800**	15.6
		Oct-09					**475**	**1.62**			**2930**	293	**5950**	16.8
		Apr-10				598	**519 UB**	**1.88**	1.96	503 UB	**2800**	259	**5830**	27.4
		Oct-10				514 UB	**479**	**1.96**	2.06	420	**2500**		**5210**	22.1
	MW-25	Apr-08				270	**1050**	1.16	3.70	642	**1360**	191	**3920**	< 1.00 J
		Sep-08				292	**891**	1.08	3.48	614	**1270**	183	**3770**	< 0.500 J
		Apr-09				294	**882**	0.878	5.20	581	**1240**	157	**3570**	0.525
		Sep-09					**825**	1.10			**1230**	159	**3560**	< 1.00 J
		Apr-10				259 UB	**748 UB**	1.03	3.57	445 UB	**1240 UB**	178	**3430**	< 0.500 U
	MW-26	Apr-08				522	**714**	**1.81**	4.48	422	**3270**	201	**6660**	< 0.100 U
		Sep-08				452	**468**	1.48	4.08	338	**2390**	189		0.219
		Apr-09				566	**734**	**1.74**	4.38	502	**3540**	177	**6720**	< 0.500 J
		Sep-09					**590**	**1.92**			**2860**	179	**5310**	< 1.00 J
		Apr-10				449 UB	**526 UB**	**1.83**	4.43	332 UB	**2920**	205	**5410**	< 0.500 U
	MW-27	Apr-08					**271**	1.12			**1400**	210	**2840**	6.12
		Sep-08				463	218	1.12	9.56	155	**1410**	214	**2880**	1.61
		Apr-09				441	212	0.979	9.23	142	**1430**	201	**2720**	1.65
		Sep-09					201	1.18			**1350**	199	**2710**	2.60
		Apr-10				352 UB	166 UB	1.10	9.08	132 UB	**1420**	186	**2610**	1.16
	MW-68	Apr-08				254	120	**1.90**	4.28	131	**918**	338	**2040**	< 1.00 J
		Sep-08				313	**260**	**1.74**	4.04	179	**1130**	281	**2730**	5.99
		Apr-09				239	186	**1.80**	3.81	142	**1150**	234	**2290**	3.32
		Sep-09					**381**	**1.61**			**1380**	281	**3200**	9.38
		Apr-10				275 UB	215 UB	**1.87**	4.12	180 UB	**1200**	307	**2460**	3.47
	MW-71	Apr-10				572	**714 UB**	1.50	3.37	406 UB	**2680**	259	**5850**	42.9
		Oct-10		< 20.0 U		669 UB	**759**	1.29	3.81	448	**3190**		**5510**	48.8
	MW-89	Apr-08				466	240	**1.87**	10.1	161	**1710**	222	**3310**	< 1.00 J
		Sep-08				502	245	**1.97**	14.7	175	**1560**	264		0.264
		Sep-08				549	**1240**	**4.25**	3.67	1060	**2030**	227		0.230
		Apr-09				536	**419**	**2.31**	8.33	188	**3190**	186	**3040**	0.550
		Sep-09					218	**3.09**			**1630**	199	**3020**	< 1.00 J
		Apr-10				470	240 UJ	**3.14 J**	9.92 J	168 UJ	**1740 J**	< 5.00	**10800 J**	< 0.500 U

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				Analyte Group:	Cyanide	Cations/Anions						Water Quality		
				Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
				Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
				CGWSL:	200		250	1.6			600		1000	
				CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**											
TMD (continued)	NP-1	Apr-08												
		Sep-08												
		Apr-09												
		Sep-09												
		Apr-10					**689 UB**	**1.94**			**2970**	365	**6260**	30.2
		Oct-10												
	NP-6	Apr-08				560	**472**	**2.36**	3.42	453	**3170**	353	**5850**	14.9
		Sep-08				565	**707**	**1.94**	3.25	437	**2660**	292	**6070**	41.9
		Apr-09				577	**671**	**1.93**	3.23	416	**2640**	313	**5180**	36.4
		Oct-09					**780**	**2.22**			**2710**	278	**6660**	41.9
		Oct-10												
N Refinery	MW-23	Apr-08				116	**448**	0.590	1.45	401	28.7	962		< 0.100 U
		Sep-08				123	**488**	0.420	1.53	407	6.24	991	**2020**	< 0.500 J
		Apr-09				112	**467**	0.592	1.30	433	15.9	1140	**2040**	< 0.150 U
		Sep-09					**555**	1.06			29.7	1010	**2270**	< 0.500 J
		Mar-10				106	**507**	1.46	1.24	452	37.1	1120	**2220**	< 0.500 U
		Oct-10				89.2 UB	**503**	1.33	1.26	437	24.1		**2040**	0.255
	MW-29	Apr-08				393	**495**	**2.54**	7.04	291	**2650**	510		1.72
		Sep-08				397	**481**	**2.07**	4.44	335	**2140**	645	**4890**	< 0.500 J
		Apr-09				440	**398**	**1.97**	3.18	415	**1890**	591	**3900**	< 0.150 U
		Sep-09					**454**	**1.69**			**2140**	670	**4780**	< 1.00 J
		Mar-10				371 UB	**348 UB**	**2.23**	5.40	335 UB	**1760**	637	**3880**	< 0.500 U
		Oct-10				388	**332**	**2.47**	4.66	346	**1670**		**4010**	< 1.00 U
	MW-30	Mar-10				473 UB	**416 UB**	1.02	1.53	323	**1930**	521	**4160**	0.891
	MW-40	Mar-10				294 UB	123 UB	1.45	0.963	86.3	**912**	516	**2120**	< 0.500 U
	MW-41	Apr-08				247	**438**	0.715	0.540	451	**1120**	1110		< 0.100 U
		Sep-08				290	**855**	0.628	0.545	539	**1170**	1120	**4550**	< 0.500 J
		Apr-09				316	**995**	0.522	0.870	680	**1250**	1090	**4430**	1.08
		Sep-09					**736**	0.546			**1210**	1040	**4070**	< 1.00 J
		Mar-10				234 UB	**595 UB**	0.667	0.486	450	**1170**	952	**3590**	< 0.500 U
		Oct-10				312	**875**	0.73	< 1.00 U	614	**886**		**3750**	< 1.00 U
	MW-42	Apr-08				269	**598**	< 0.100 U	0.979	424	**959**	1200		< 0.100 U
		Sep-08				217	**601**	0.753	0.544	396	**840**	953	**3490**	< 0.500 J
		Apr-09				203	**693**	0.502	0.682	392	**991**	875	**3460**	< 0.150 U
		Apr-09	FD			210	**641**	0.595	0.743	410	**874**	1120	**3400**	1.07
		Sep-09					**750**	0.605			**979**	1030	**3680**	< 1.00 J
		Mar-10				257 UB	**278 UJ**	0.655	0.469	453	359 UJ	1050	**3380**	< 0.500 U
		Oct-10				244	**670**	0.74	< 1.00 U	419	**730**		**3420**	< 1.00 U
	MW-43	Apr-08				140	**721**	0.627	0.470	614	215	1020		< 0.100 U
		Sep-08				123	**726**	0.881	0.495	745	188	1200	**2790**	< 0.500 J
		Apr-09				99.6	**652**	0.624	0.508	632	140	1120	**2290**	< 0.150 U
		Sep-09					**626**	0.690			128	972	**2280**	< 0.500 J
		Mar-10				104 UB	**623**	0.958	0.456	597	65.8	1220	**2420**	< 0.500 U
		Oct-10		< 20.0 U		87.3	**610**	0.93	< 1.00 U	627	39		**2220**	< 1.00 U

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Navajo Refinery, Artesia, New Mexico

		Analyte Group:	Cyanide	Cations/Anions						Water Quality		
		Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
		Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
		CGWSL:	200		250	1.6			600		1000	
		CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**									
N Refinery (continued)	MW-45	Apr-08			333	204	1.80	3.97	221	1720	367		< 0.100 U
		Sep-08			335	223	1.86	4.02	220	1580	355	3320	< 0.500 J
		Apr-09			383	264	1.75	5.69	207	1690	304	3200	< 0.500 J
		Sep-09				343	2.00			1840	320	3850	< 1.00 J
		Mar-10			462 UB	353 UB	1.65	4.51	202	2060	436	4190	< 0.500 U
		Nov-10		< 20.0 U	487	377	1.96	4.54	212	1920		4290	< 10.0 U
		Nov-10	FD	< 20.0 U	540	368	1.82	5.15	235	1730		4020	< 10.0 U
	MW-46	Nov-10			800	357	2.02	13.7	182	2050		4270	< 10.0 U
	MW-55	Apr-08			430	296	< 0.100 U	0.749	209	2130	354		3.77
		Sep-08			572	227	1.30	0.975	262	3010	288	5500	19.7
		Apr-09			447	278	0.911	0.897	218	2140	313	4190	6.23
		Sep-09				277	1.15			2480	280	4850	6.58
		Mar-10			495 UB	243	1.71	0.764	193	2640	261	4760	10.8
		Oct-10		< 20.0 U	530	130	2.48	1.15	156	2400		4160	9.65
	MW-56	Apr-08			436	426	< 0.100 U	1.79	220	1700	516		< 1.00 J
		Sep-08			516	310	1.01	2.20	266	1830	450	3890	0.766
		Apr-09			524	329	0.750	2.09	217	1920	432	3940	0.619
		Sep-09				337	0.854			1850	380	4030	< 1.00 J
		Sep-09	FD			338	0.853			1830	390	4100	< 1.00 J
		Mar-10			442 UB	306 UB	0.863	1.84	187 UB	1790	416	3890	< 0.500 U
		Oct-10			511	360	1.1	2.08	207	1800		3830	< 1.00 U
	MW-59	Apr-10			494	228 UB	0.984	0.605	140	1750	382	3420	< 0.500 U
	MW-60	Apr-10			404 UB	316 UB	0.807	0.627	194	1750	704	3840	< 0.500 U
		Nov-10		< 20.0 U	383	289	0.381	< 2.00 U	193	1460		3380	< 10.0 U
	MW-61	Apr-08			429	1440	0.655	0.769	260	623	580		< 0.100 U
		Sep-08			477	1860	0.498	0.804	332	914	674	5740	< 0.500 J
		Apr-09			438	1190	0.703	0.846	382	1010	653	4670	< 0.500 J
		Oct-09				1050	0.858			824	658	4320	< 0.500 U
		Apr-10			514	809 UB	1.08	0.628	575 UB	1440 UB	507	4440	< 0.500 UJ
		Oct-10			395	700	1.14	< 1.00 U	422	1220		3700	0.140 J
	MW-62	Apr-08			180	128	0.855	0.860	195	272	957		< 0.100 U
		Sep-08			198	177	0.601	0.816	185	235	872	1620	< 0.500 J
		Apr-09			186	171	0.720	1.08	177	158	943	1600	< 0.150 U
		Oct-09				201	0.888			105	806	1600	< 0.500 J
		Apr-10			237 UB	228	1.10	0.891	172 UB	164	835	1570	< 0.500 U
		Oct-10			250	234	1.13	1.01	140 UB	211		1550	0.101
		Oct-10	FD		257	264	1.12	1.00	140 UB	217		1590	< 0.100 U
	MW-67	Apr-08			194	251	0.546	0.415	139	360	707		< 0.100 U
		Sep-08			206	288	0.204	0.466	133	393	690	1770	< 0.500 J
		Apr-09			177	238	< 0.250 U	0.632	127	322	729	1590	< 0.150 U
		Oct-09				202	< 0.500 J			558	544	2030	< 0.500 J
		Mar-10			173 UB	243	0.432	0.602	134 UB	246	687	1520	< 0.500 U
		Oct-10		< 20.0 U	167	201	0.570	< 1.00 U	147	197		1350	< 0.100 U

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Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Cyanide	Cations/Anions						Water Quality		
				Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
				Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
				CGWSL:	200		250	1.6			600		1000	
				CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**											
N Refinery (continued)	MW-90	May-08				277	69.1	0.892	0.738	184	**1150**	598		< 0.100 U
		Sep-08				321	193	**2.54**	2.83	420	**2640**	546	**5060**	10.1
		Sep-08	FD			338	195	**2.56**	3.08	444	**2610**	548	**5150**	9.83
		Apr-09				283	114	1.31	1.69	311	**1640**	567	**3770**	< 0.150 U
		Oct-09					98.9	1.27			**1500**	603	**3420**	< 0.500 U
		Mar-10				245 UB	117 UB	1.31	1.10	220 UB	**1430**	612	**2960**	< 0.500 U
		Oct-10				288	111	1.56	1.37 UB	280	**1330**		**2980**	< 0.10 U
	MW-91	May-08				256	67.2	0.902	0.402	49.0	544	795		< 0.100 U
		Sep-08				260	78.0	0.373	0.769	50.1	**621**	793	**2020**	< 0.500 J
		Apr-09				241	48.8	0.625	0.523	51.3	535	713	**1820**	< 0.150 U
		Oct-09					20.1	1.12			**790**	722	**2250**	0.562
		Mar-10				324 UB	13.4 UB	1.24	0.332	33.3	**664**	787	**2040**	< 0.500 U
		Oct-10				323	17.9	1.39	< 1.00 U	39.2 UB	581		**1890**	0.11
	MW-92	May-08				172	**486**	0.832	0.545	333	315	1200		0.476
		Sep-08				162	**426**	0.673	0.488	340	376	933	**2400**	< 0.500 J
		Apr-09				172	**401**	0.549	0.590	325	310	970	**2280**	< 0.150 U
		Oct-09					**603**	0.871			40.0	1100	**2260**	< 0.100 U
		Mar-10				119 UB	**488**	0.997	1.11	377 UB	64.8	1150	**2190**	< 0.500 U
	MW-93	May-08				778	75.9	1.60	8.28	95.7	**713**	549		< 0.100 U
		Sep-08				622	78.6	0.878	5.63	88.7	**932**	510	**2330**	< 0.500 J
		Apr-09				329	60.1	1.26	4.55	90.3	**817**	529	**2000**	< 0.500 J
		Oct-09					46.7	1.32			**709**	480	**1920**	< 0.500 J
		Mar-10				378 UB	47.9 J	**1.64 J**	2.28 J	81.8 J	**847 J**	642	**2180 J**	< 0.500 U
		Mar-10	FD			451 UB	**572 J**	**2.41 J**	5.11 J	379 UJ	**3350 J**	531	**6530 J**	< 0.500 U
		Oct-10				355	42.3	1.55	2.46 UB	88.8	**686**		**1740**	0.14 J
	MW-95	May-08				218	**251**	0.643	0.508	105	426	861		< 0.100 U
		Sep-08				269	**306**	0.216	0.327	100	**648**	636	**2130**	< 0.500 J
		Apr-09				240	**261**	< 0.500 J	0.446	112	477	669	**1980**	< 0.150 U
		Oct-09					235	0.657			488	643	**2060**	< 0.500 J
		Mar-10				219 UB	**263**	0.631	0.559	142 UB	302	697		< 0.500 U
	MW-96	May-08				169	247	0.988	0.893	215	293	837		< 0.100 U
		Sep-08				194	250	0.888	1.28	216	294	961	**1750**	< 0.500 J
		Apr-09				164	248	0.667	0.829	214	308	839	**1880**	< 0.150 U
		Apr-09	FD			166	242	0.630	0.780	214	337	854	**1830**	< 0.150 U
		Oct-09					222	1.04			243	757	**1790**	0.633
		Oct-09	FD				220	0.791			242	801	**1710**	< 0.500 J
		Mar-10				178 UB	149 UB	0.951	1.01	225 UB	422	827	**1760**	< 0.500 U
		Oct-10				187	133	1.18	1.14 UB	236	359		**1730**	0.24
	MW-98	May-08				311	38.0	0.966	0.352	209	**1910**	472		< 0.100 U
		Sep-08				311	22.9	0.842	0.344	123	**1670**	439	**3410**	< 0.500 J
		Apr-09				294	18.3	0.730	< 0.400 J	72.9	**1610**	320	**2860**	< 0.150 U
		Sep-09					55.4	**1.64**			**2040**	518	**3810**	< 0.500 J
		Apr-10				509	59.1	**1.64**	< 0.400 U	90.5 UB	**1950**	567	**3760**	< 0.500 U
		Oct-10				397	54.8	1.43	< 1.00 U	70.3 UB	**1540**		**3160**	< 0.100 U

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		Analyte Group:	Cyanide	Cations/Anions						Water Quality		
		Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
		Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
		CGWSL:	200		250	1.6			600		1000	
		CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**									
N Refinery (continued)	RW-1	Apr-08			198	**336**	0.914	1.39	278	**701**	769		< 1.00 J
		Sep-08			252	**266**	0.850	1.46	242	595	781	**2330**	< 0.500 J
		Apr-09			300	**312**	0.573	1.84	290	**736**	820	**2670**	< 0.150 U
		Oct-09				**324**	0.597			**671**	742	**2510**	< 0.500 J
		Nov-10			470	**296**	0.755	3.71	275	**905**		**3270**	< 10.0 U
	RW-2	Nov-10			243	**271**	0.966	2.07	245	34.3		**2100**	< 10.0 U
	RW-7	Apr-10			164	**280**	0.709	0.893	131	164	814	**1600**	< 0.500 U
	RW-9	Apr-10			240 UB	**296 UB**	1.22	2.18	361	**878**	784	**2510**	< 0.500 U
		Apr-10	FD		193 UB	**251 UB**	1.33	2.19	288	**750**	694	**2470**	< 0.500 U
	RW-10	Apr-10			293 UB	183 UB	**2.74**	5.98	200	**1430**	201	**2890**	< 0.500 U
	RW-16A	Mar-10			483 UB	**535**	**4.92**	1.27	508	**3000**	526	**6410**	1.46
S Refinery	KWB-2R	Oct-10			113	**363**	**1.73**	< 2.00 U	292	13.2		**1580**	< 0.100 UJ
	MW-28	Apr-08			232	180	1.10	0.576	89.7	**816**	1080		< 0.100 U
		Apr-09			251	179	0.919	0.484	99.8	567	858	**2090**	< 0.150 U
		Sep-09				182	1.10			460	760	**1830**	< 1.00 J
		Apr-10			255 UB	182 UB	1.01	0.716	112	**614**	764	**2150**	< 0.500 U
		Oct-10		45.0	292	230 J	1.1 J	1.20 J	86.4 UB	**740**		**2560 J**	< 1.00 U
	MW-49	Apr-08			202	**445**	1.34	2.14	285	359	818		< 0.100 U
		Sep-08			204	**499**	1.22	2.28	273	394	719	**2360**	< 0.500 J
		Apr-09			216	**541**	0.977	2.12	298	358	703	**2310**	1.07
		Apr-10			184 UB	**464**	1.24	2.55	278	329	754	**2170**	< 0.500 U
		Oct-10		< 20.0 U	166	**416**	1.36	2.17	260	288		**1940**	< 0.100 U
	MW-50	*Apr-08*			*346*	172	0.766	2.11	117	**1320**	359		< 0.100 U
		Apr-08	FD		356	178	0.757	1.90	121	**1330**	373		< 0.100 U
		Sep-08			433	181	0.759	2.13	127	**1240**	370	**2780**	< 0.500 J
		Sep-08	FD		389	193	0.749	2.21	119	**1270**	364	**2700**	< 0.500 J
		Apr-09			374	170	0.583	2.11	116	**1290**	304	**2700**	< 0.500 J
		Sep-09				167	0.863			**1310**	311	**2690**	0.565
		Sep-09	FD			167	0.723			**1280**	316	**2730**	< 0.500 J
		Apr-10			489	170 UB	0.828	2.19	159 UB	**1420 UB**	338	**2750**	< 0.500 U
		Nov-10			337	156	0.840	2.23	112	**1230**		**2510**	< 10.0 U
	MW-52	Apr-08			197	**345**	**1.67**	0.392	358	**1090**	590		4.12
		Sep-08			234	**283**	**1.64**	0.438	383	**1090**	611	**2780**	2.86
		Apr-09			190	**261**	1.40	< 0.400 J	342	**1060**	616	**2600**	2.24
		Sep-09				180	1.42			**1030**	552	**2330**	2.18
		Sep-09	FD			181	**1.71**			**1020**	538	**2500**	2.11
		Apr-10			215 UB	221 UB	**1.67**	< 1.00 U	366 UB	**1080**	517	**2750**	3.08
		Oct-10		< 20.0 U	160	159	**1.76**	< 2.00 U	284	**849**		**2220**	1.15
	MW-57	Nov-10			679	**1380**	**2.78**	3.02	924	**3410**		**8720**	< 10.0 U

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Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Cyanide	Cations/Anions						Water Quality		
				Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
				Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
				CGWSL:	200		250	1.6			600		1000	
				CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**											
S Refinery (continued)	MW-58	Apr-08				185	**319**	0.822	< 0.200 J	91.8	201	793		< 0.100 U
		Sep-08				234	**328**	0.987	0.410	108	228	805	**1640**	< 0.100 J
		Apr-09				214	**327**	0.701	< 0.20 U	102	209	770	**1610**	< 0.150 U
		Sep-09					**317**	1.11			95.9	794	**1500**	< 0.500 U
		Apr-10				210 UB	**303**	0.933	< 1.00 U	84.2 UB	157 J	756	**1710**	< 0.500 U
		Apr-10	FD			195 UB	**260**	0.998	< 1.00 U	83.0 UB	90.9 J	776	**1510**	< 0.500 U
		Oct-10			< 20.0 U	217	**282**	0.977	< 2.00 U	80.3	< 0.500 U		**1300**	< 0.100 U
	MW-66	Apr-08				180	246	0.994	0.868	195	5.01	978		< 0.100 U
		Sep-08				180	219	1.03	3.11	162	1.37	945	**1140**	< 0.500 J
		Apr-09				153	238	0.901	1.09	191	6.21	883	**1230**	< 0.150 U
		Sep-09					231	1.05			6.96	750	**1230**	< 0.100 J
		Apr-10				142 UB	216	1.04	0.920	180	3.59 UB	864	**1340**	< 0.500 U
		Oct-10			< 20.0 U	119	200	1.2	1.80	149 UB	1.1		**1010**	< 1.00 U
	MW-99	Sep-08				185	**290**	0.415	0.578	200	236	828	**1780**	< 0.500 J
		Apr-09				177	248	< 0.500 J	0.594	133	218	616	**1390**	< 0.150 U
		Sep-09					249	< 0.500 J			205	774	**1680**	< 0.500 J
		Apr-10				183 UB	**268**	0.534	0.632	200	236	804	**1790**	< 0.500 U
		Oct-10				187	**290**	0.58	< 1.00 U	192	200		**1510**	< 1.00 U
	MW-101	May-08				219	250	0.829	0.478	170	239	693		< 0.100 U
		May-08	FD			204	250	0.824	0.647	156	235	689		< 0.100 U
		Sep-08				221	**291**	0.642	0.635	157	263	690	**1530**	< 0.500 J
		Apr-09				171	**289**	< 0.500 J	0.581	180	229	718	**1680**	< 0.150 U
		Sep-09					241	0.847			212	617	**1440**	< 0.500 U
		Apr-10				186 UB	244	0.658	0.649	154	195	663	**1430**	< 0.500 U
		Nov-10				172	**271**	0.734	< 1.00 U	139	187		**1320**	< 10.0 U
	MW-103	Sep-08											**1860**	
		Mar-09				12.1	**919**	**12.0**	1.15	1050	42.5	1020	**2710**	< 1.00 J
		Sep-09					**819**	**11.7**			39.8	1060	**2700**	< 0.500 J
		Apr-10				12.3	**817**	**12.4**	0.729	974	12.1 UJ	1380	**3070**	< 0.500 U
	MW-104	Sep-08											**1810**	
		Mar-09				208	64.8	**2.91**	5.01	38.3	**620**	139	**1180**	< 1.00 J
		Sep-09					74.1	**2.33**			**730**	202	**1560**	< 0.500 J
		Apr-10				151	26.9	**2.53**	4.55	31.9	436	148	874	< 0.500 U
		Oct-10				264	87	**2.0 J**	7.07	46.5 UB	**620**		**1500**	< 1.00 U
		Oct-10	FD			262	96.6 J	**2.03 J**	7.25 J	48.5 UB	**691**		**1500 J**	< 1.00 U
	MW-106	Sep-09					83.2	0.989			**1880**	508	**3680**	0.507
		Apr-10				366 UB	36.6	0.919	1.70	146	**1640**	452	**3270**	< 0.500 U
		Oct-10				365	54.3	0.956	< 1.00 U	196	**1460**		**3400**	< 10.0 U
	MW-107	Sep-09					**306**	0.918			< 2.50 J	730	**1570**	< 0.500 J
		Mar-10				128	**253**	1.23	0.989	61.9	0.813	727	**1270**	< 0.500 U
		Nov-10				111	**272**	1.20	1.15	61.2	1.03		**1160**	< 1.00 U
	RW-4	Apr-10				178	**297**	0.667	1.41	171	404	613	**1780**	< 0.500 U

Table 4 - Summary of Groundwater Analytical Data
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		Analyte Group:	Cyanide	Cations/Anions						Water Quality		
		Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
		Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
		CGWSL:	200		250	1.6			600		1000	
		CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**									
S Refinery (continued)	RA-313	Mar-08				28.4	0.843			483	193	**1030**	< 1.00 J
		Sep-08			180	16.0	0.775	1.06	14.4	441	199	952	0.636
		Sep-08	FD		183	15.6	0.776	1.09	14.5	436	205	866	0.639
		Oct-09				15.2	0.711			429	184	976	1.14
		Apr-10			207 UB	33.6	0.698	0.965	21.3 UB	494	199	**1030**	< 0.500 U
		Apr-10	FD		215 UB	34.3	0.698	1.11	22.8 UB	496	189	**1100**	0.992
	RA-1227	Nov-10				135	0.373			**1340**		**2520**	< 10.0 U
		Nov-10	FD			140	0.344			**1340**		**2880**	< 10.0 U
Field E of Refinery	KWB-1A	Sep-08			423	210	1.01	1.06	178	**1830**	438	**3750**	< 0.500 J
		Apr-09			385	210	0.784	1.02	170	**1890**	365	**3610**	< 0.500 J
		Sep-09				198	0.955			**1850**	409	**3570**	0.709
		Apr-10			355 UB	223 UB	1.11	1.07	149 UB	**1950**	421	**3840**	< 0.500 U
		Oct-10		< 20.0 U	409 UB	220	1.15	0.996	155	**1490 J**		**3840**	< 0.100 U
		Oct-10	FD	< 20.0 U	434 UB	248	1.18	1.07	170	**1660**		**3730**	< 0.100 U
	KWB-3AR	Apr-08			541	206	0.213	1.53	334	**2600**	334		22.6
		Sep-08			707	243	0.280	0.828	419	**2770**	367	**5410**	19.7
		Sep-08	FD		657	248	0.261	0.847	392	**2790**	333	**5330**	19.9
		Apr-09			601	176	< 0.250 U	1.05	329	**2780**	379	**5270**	12.1
		Sep-09				176	< 0.500 J			**3050**	335	**5490**	11.9
		Apr-10			615	**292 UB**	0.284	0.938	467 UB	**3200**	373	**5340**	18.0
		Oct-10		< 20.0 U	532	216	0.511	< 2.00 U	428	**2810**		**5230**	8.78
		Oct-10	FD	< 20.0 U	502	237 J	0.501	< 2.00 U	434 J	**2720**		**4870**	9.14 J
	KWB-7	Apr-08			256	**393**	0.566	0.490	201	**722**	844		3.63
		Sep-08			422	**585**	0.645	0.633	297	**1120**	373	**3860**	14.8
		Apr-09			313	**474**	< 0.500 J	1.25	229	**860**	630	**2940**	5.74
		Oct-09				**517**	0.789			**1010**	686	**3130**	7.15
		Apr-10			273 UB	**419 UB**	0.771	0.558	228 UB	**895 UB**	769	**2820**	1.27
		Oct-10		< 20.0 U	323	**468**	0.870	< 2.00 U	230	**830**		**2940**	0.518
	KWB-9	Apr-08			348	189	0.259	0.830	130	**1290**	482		< 1.00 J
		Apr-08	FD		361	197	0.252	0.761	135	**1330**	509		< 1.00 J
		Sep-08			396	196	0.308	0.824	144	**1340**	474	**3140**	< 0.500 J
		Apr-09			433	205	< 0.250 U	0.812	141	**1370**	482	**2990**	0.564
		Sep-09				242	< 0.500 U			**1450**	424	**3070**	1.17
		Apr-10			532	**269 UB**	0.198	< 1.00 U	180 UB	**1570**	438	**3540**	1.65
		Oct-10		< 20.0 U	473	**259**	0.358	< 2.00 U	151	**1510**		**3140**	0.508
	KWB-11A	Apr-08			260	**1060**	0.615	0.510	202	**1500**	614		5.94
		Sep-08			341	**591**	0.584	0.748	217	**647**	569	**3100**	22.0
		Apr-09			389	**864**	< 0.500 J	1.67	269	**814**	466	**3510**	30.1
		Oct-09				**890**	0.840			**954**	477	**3940**	33.7
		Apr-10			404 UB	**909**	0.633	< 1.00 U	319 UB	**879 UB**	555	**3740**	27.4
		Oct-10		< 20.0 U	541 UB	**960**	1.01	0.603	364	**903**		**4020**	26.9
	KWB-11B	Oct-10		< 20.0 U	409	**288**	0.483	3.11	81.5	**1180**		**2690**	1.26

Table 4 - Summary of Groundwater Analytical Data

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Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Cyanide	Cations/Anions						Water Quality		
				Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
				Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
				CGWSL:	200		250	1.6			600		1000	
				CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**											
Field E of Refinery (continued)	KWB-12A	Sep-08				576	114	0.436	3.32	203	**2260**	364	**3850**	5.99
		Sep-09					130	< 0.500 J			**2290**	281	**4010**	5.47
		Oct-10		< 20.0 U		541	126	0.447 J	< 2.00 U	134	**2200**		**3740**	5.61 J
	KWB-12B	Oct-10		< 20.0 U		538	116 J	0.305	< 2.00 U	140 J	**2090**		**3760**	4.42 J
	RW-11-1	Nov-10				398	189	0.605	6.06	73.0	**766**		**2660**	< 10.0 U
	RW-18	Apr-08				420	**261**	**2.31**	1.11	235	**3400**	321		< 1.00 J
		Sep-08				530	**283**	**1.95**	0.899	252	**3190**	307	**5990**	0.925
		Apr-09				509	**321**	**1.98**	0.864	231	**3140**	255	**5520**	1.07
		Sep-09					**309**	**1.93**			**2920**	296		1.53
		Apr-10				413 UB	**362 UB**	**2.30**	0.950	188 UB	**3190**	311	**5480**	0.822
	RA-4196	Mar-08					**677**	0.486			**1280**	198	**3460**	< 0.100 U
		Sep-08				394	**268**	0.200	2.34	146	**1190**	219	**2510**	< 0.500 J
		Apr-09				377	**875**	< 0.250 U	2.89	419	**1230**	157	**3370**	< 0.150 U
		Sep-09					**329**	< 0.500 U			**1280**	197	**2770**	< 0.500 J
		Apr-10				412 UB	187 UB	0.115	2.36	121 UB	**1120**	213	**2400**	< 0.500 U
		Nov-10					201	0.274			**1150**		**2440**	< 10.0 U
	RA-4798	Mar-08					77.4	0.293			**875**	173	**1700**	< 1.00 J
		Sep-08				298	84.8	0.230	2.23	58.4	**876**	182	**1720**	< 0.500 J
		Apr-09				238	70.0	< 0.250 U	2.02	44.7	**768**	128	**1460**	< 0.500 J
		Sep-09					165	< 0.500 U			**1560**	286	**3000**	0.758
		Apr-10				283 UB	73.0	0.154	1.74	47.8 UB	**842**	179	**1740**	1.20
		Nov-10					139	0.251			**1210**		**2460**	< 10.0 U
Crossgradient	KWB-13	Apr-08				419	160	0.640	1.22	129	**1760**	328		14.5
		Sep-08				457	196	0.653	1.11	147	**1940**	321	**3590**	17.9
		Apr-09				496	181	< 0.500 J	1.02	154	**1760**	255	**3270**	13.0
		Apr-09	FD			505	181	< 0.500 J	1.25	124	**1760**	282	**3370**	13.8
		Sep-09					157	0.501			**1710**	286	**3500**	14.4
		Apr-10				431 UB	158 UB	0.582	1.40	139 UB	**1900**	294	**3540**	14.5
	NP-5	Apr-08				430	153	**2.63**	0.729	480	**4160**	305		4.23
		Sep-08				525	161	**2.33**	0.474	545	**4040**	285	**7210**	4.85
		Apr-09				527	171	**2.62**	0.441	516	**4470**	289	**6930**	< 0.150 U
		Oct-09					164	**2.70**			**3980**	258	**6690**	5.75
		Apr-10				521	216 UB	**2.77**	< 1.00 U	452 UB	**3860**	249	**6050**	6.39
	RA-3156	Mar-08					233	0.136			**1570**	250	**3190**	5.69
		Sep-08				522	235	0.181	2.73	163	**1540**	262	**3080**	5.64
		Apr-09				454	218	< 0.250 U	2.54	140	**1490**	231	**2880**	5.28
		Apr-10				555	209 UB	< 0.100 U	2.32	171 UB	**1570**	239	**3070**	5.12
		Nov-10					215	0.235			**1460**		**3120**	< 10.0 U

Table 4 - Summary of Groundwater Analytical Data

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				Analyte Group:	Cyanide	Cations/Anions						Water Quality		
				Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
				Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
				CGWSL:	200		250	1.6			600		1000	
				CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**											
Upgradient	MW-53	Apr-08				262	71.3	0.835	0.998	98.8	**1090**	285		< 0.100 U
		Sep-08				326	132	0.973	1.15	84.4	**1270**	261	**2490**	3.60
		Apr-09				330	119	0.848	1.07	98.1	**1250**	265	**2370**	0.507
		Oct-09					135	0.990			**1290**	223	**2460**	2.27
		Apr-10				290 UB	109 UB	0.870	< 1.00 U	85.8 UB	**1330**	239	**2390 J**	< 0.500 U
		Apr-10	FD			350 UB	108 UB	0.851	< 1.00 U	106 UB	**1310**	199	902 J	< 0.500 U
	UG-1	Apr-09				907	177	< 0.500 J	7.06	70.5	**1900**	1330	**3410**	5.54
		Oct-09					166	0.691			**1810**	252	**3450**	7.21
		Apr-10				530 UB	159 UB	0.627	1.69	87.6 UB	**1820**	219	**3410**	7.36
		Oct-10			< 20.0 U	494	151	0.680	< 2.00 U	78.8	**1590**		**3060**	6.61
	UG-2	Apr-09				374	62.1	1.25	4.61	75.9	**1010**	120	**1940**	1.70
		Oct-09					53.0	1.30			**961**	247	**1900**	2.56
		Apr-10				267 UB	44.0	1.34	3.05	71.0 UB	**910**	249	**1900**	2.44
		Oct-10			< 20.0 U	263	45.4	1.34 J	2.46	71.1	**809**		**1740**	1.90
	UG-3R	Apr-09				434	62.9	< 0.250 U	4.06	63.3	**1390**	379	**2590**	4.96
		Oct-09					68.0	0.565			**1330**	208	**2520**	5.38
		Apr-10				464	59.6	0.372	2.10	79.4 UB	**1360**	209	**2470**	6.28
		Oct-10			< 20.0 U	359	46	0.50 J	1.82	49.3 UB	**1100**		**2170**	1.97

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Navajo Refinery, Artesia, New Mexico

Abbreviation	Definition
X	Reported concentration equal to X was above the CGWSL.
< x	Analyte was not detected at reporting limit equal to x. If the < x value is bolded, the reporting limit exceeded the CGWSL.
CGWSL	Critical Groundwater Screening Level (see Table 3)
CGWSL Source	Source for CGWSL value (see Table 3)
Dup	Duplicate sample indicator
EPA MCL	EPA Maximum Contaminant Level from "Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites"
FD	Field Duplicate sample
mg/L	milligrams per liter
NMED TPH	New Mexico Environment Department TPH Screening Guidelines, October 2006
NMED TW	New Mexico Environment Department Soil Screening Levels, Revions 4.0, June 2006, Tap Water Screening Level
ug/L	micrograms per liter
WQCC Dom	NMED Groundwater standard for domestic exposure taken from 20.6.2.3103.B
WQCC HH	NMED Groundwater standard for human health exposure taken from 20.6.2.3103.A
WQCC Irr	NMED Groundwater standard for irrigation exposure taken from 20.6.2.3103.C

Lab Footnote	Definition
B	Analyte was also detected in the associated method blank.
J	Indicates an estimated value.
R	Rejected.
U	The compound was analyzed for but not detected at the reporting limit shown.

Table 5
RO System Reject Water Analytical Data
Navajo Refinery, Artesia, New Mexico

		Metals																				
		Aluminum	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Mag nesium	Man ganese	Molyb denum	Nickel	Potas sium	Selenium	Silver	Sodium	Vanadium	Zinc
	Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
	CGWSL:	5	0.01	1	0.004	0.75	0.005	--	0.05	0.05	1	1	0.05	-	0.2	1	0.2	-	0.05	0.05	-	0.18	10
	Source:	WQCC	MCL	WQCC	MCL	WQCC	MCL		WQCC	WQCC	WQCC	WQCC	WQCC		WQCC	WQCC	WQCC		WQCC	WQCC		EPA	WQCC
	Date																						
Reverse Osmosis Reject Water	12/27/2004	<0.01	0.00725	0.0669	<0.002	0.071	<0.002	628	<0.005	<0.005	0.00586	<0.2	<0.005	198	<0.005	0.00793	<0.005	4.11	0.01	<0.005	131	0.0104	0.0259
	1/16/2007	<0.01	<0.005	0.0638	<0.002	0.0568	<0.002	694	<0.005	<0.005	<0.005	<0.2	<0.005	233	<0.005	0.00744	<0.005	4.48	0.0095	<0.005	234	0.00991	0.00839
	2/22/2007	<0.01	0.00941	0.0681	<0.002	0.0643	<0.002	735	<0.005	<0.005	<0.005	<0.2	<0.005	246	<0.005	0.00813	<0.005	4.49	0.00761	<0.005	320	0.0102	0.00734
	7/5/2007	0.0168	<0.005	0.0553	<0.002	0.0644	<0.002	600	<0.005	<0.005	<0.005	<0.2	<0.005	176	<0.005	0.00882	<0.005	3.47	0.00763	<0.005	167	0.00974	0.00749
	12/14/2007	<0.01	<0.005	0.0704	<0.002	0.0752	<0.002	594	<0.005	<0.005	<0.005	<0.2	<0.005	208	<0.005	0.00952	<0.005	4.32	0.00793	<0.005	218	0.0104	0.00677
	2/7/2008	<0.01	<0.005	0.0564	<0.002	0.0773	<0.002	548	<0.005	<0.005	<0.005	<0.2	<0.005	179	<0.005	0.00639	<0.005	3.34	0.0058	<0.005	206	0.00771	<0.005
	5/22/2008	<0.01	<0.005	0.0602	<0.002	0.0819	<0.002	562	<0.005	<0.005	<0.005	<0.2	<0.005	180	<0.005	0.0073	<0.005	3.72	0.00877	<0.005	167	0.0116	0.00694
	8/29/2008	<0.01	<0.005	0.0783	<0.002	0.0896	<0.002	786	<0.005	<0.005	<0.005	<0.2	<0.005	247	<0.005	0.0108	<0.005	4.68	0.00658	<0.005	152	0.0106	0.00657
	12/4/2008	NA	<0.005	0.0759	NA	NA	<0.002	NA	<0.005	NA	NA	NA	<0.005	NA	NA	NA	NA	NA	0.00942	<0.005	NA	NA	NA
	2/23/2009	<0.01	<0.005	0.0611	<0.002	0.0786	<0.002	698	<0.005	<0.005	<0.005	<0.2	<0.005	215	<0.005	0.00976	<0.005	4.14	0.00893	<0.005	192	0.0107	<0.005
	5/7/2009	<0.05	<0.025	0.074	<0.01	<0.1	<0.01	596	<0.025	<0.025	<0.025	<1	<0.025	198	<0.025	<0.025	<0.025	4	<0.025	<0.025	224	<0.025	<0.025
	8/25/2009	NA	<0.005	0.0751	NA	NA	<0.002	NA	<0.005	NA	NA	NA	<0.005	NA	NA	NA	NA	NA	0.0082	<0.005	NA	NA	NA
	11/9/2009	NA	<0.005	0.0816	<0.002	<0.005	<0.002	NA	<0.005	NA	NA	NA	<0.005	NA	NA	NA	NA	NA	0.00702	<0.005	NA	NA	NA
	2/25/2010	NA	<0.005	0.0644	NA	NA	<0.002	NA	<0.005	NA	NA	NA	<0.005	NA	NA	NA	NA	NA	0.00668	<0.005	NA	NA	NA
	5/27/2010	NA	<0.005	0.0529	NA	NA	<0.002	602	<0.005	NA	NA	NA	<0.005	144	NA	NA	NA	3.22	0.00627	<0.005	115	NA	NA
	8/12/2010	NA	<0.005	0.0819	NA	NA	<0.004	651	<0.005	NA	NA	NA	<0.010	186	NA	NA	NA	4.72	0.0106	<0.005	164	NA	NA
	11/23/2010	NA	<0.025	0.344	NA	NA	<0.01	NA	<0.025	NA	NA	NA	<0.025	NA	NA	NA	NA	NA	0.0347	<0.025	NA	NA	NA

		Volatiles				Semi Volatiles	Anions				Total Alkalinity
		Benzene	Ethyl benzene	Tetrachloro ethene	Xylenes	Naph thalene	Chloride	Fluoride	Nitrate/Nitrite as Nitrogen	Sulfate	
	Units:	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
	CGWSL:	5	700	5	620	30	250	1.6	1	600	-
	Source:	MCL	MCL	MCL	WQCC	WQCC	WQCC	WQCC	WQCC	WQCC	-
	Date										
Reverse Osmosis Reject Water	12/27/2004	<5	<5	<5	<10	<10	233	**3.16**	**1.78**	**1660**	622
	1/16/2007	NA	NA	NA	NA	NA	**515**	**3.98**	NA	**2160**	669
	2/22/2007	<5	<5	<5	<15	<5	**583**	**3.38**	**1.56**	**1920**	638
	7/5/2007	<5	<5	<5	<15	<5	**328**	**2.91**	**1.86**	**1560**	520
	12/14/2007	<5	<5	<5	<15	<5	**464**	**3.46**	0.58	**1910**	982
	2/7/2008	<5	<5	<5	<15	<5	**417**	**2.55**	0.928	**1540**	575
	5/22/2008	<5	<5	<5	<15	<5	**293**	**2.82**	NA	**1530**	296
	8/29/2008	<5	<5	<5	<15	<5	241	**3.98**	NA	**1980**	869
	12/4/2008	<5	<5	<5	<15	<5	**307**	**3.76**	NA	**1810**	819
	2/23/2009	NA	NA	NA	NA	NA	**325**	**3.17**	NA	**1740**	691
	5/7/2009	NA	NA	NA	NA	NA	**392**	**2.83**	NA	**1740**	664
	8/25/2009	NA	NA	NA	NA	NA	**461**	**3.62**	NA	**1870**	729
	11/9/2009	NA	NA	NA	NA	NA	**525**	**3.92**	NA	**2040**	787
	2/25/2010	NA	NA	NA	NA	NA	**355**	**3.1**	NA	**1650**	613
	5/27/2010	NA	NA	NA	NA	NA	180	**2.66**	NA	**1290**	557
	8/12/2010	NA	NA	NA	NA	NA	**357**	**3.95**	NA	**2220**	920
	11/23/2010	NA	NA	NA	NA	NA	**344**	**3.46**	NA	**1750**	822

Footnotes and Definitions

3.16 Concentration shown exceeds the groundwater standard

Abbreviations:

CGWSL = Critical Groundwater Screening Level (see Table 3)
mg/L = Milligrams per liter
µg/L = Micrograms per liter
NA = Not analyzed

CGWSL Source (see Table 3):

" - " = No standard available
MCL = Maximum Contaminant Level from the National Primary Drinking Water Standards
NMED TPH = New Mexico Environment Department Total Petroleum Hydrocarbon Standards Oct 2006
WQCC = Water Quality Control Commission; standard for groundwater from NMAC 20.6.2.3103

of the well was communicated to Navajo and the well was replaced prior to the second semiannual sampling event.

- MW-57 was not sampled because a pump was present in the well.
- MW-63 was not sampled because the well was plugged due to Refinery expansion activities.
- MW-100 was not sampled because the well was plugged due to Refinery expansion activities.
- MW-108 was sampled early in the sampling event (March 30, 2010). However, it was determined that the well had not been developed following installation. The well was developed and resampled on April 16, 2010.
- RA 314 was not sampled because the well has been removed from service and no pump or power was available.
- RW-11 was not sampled because it was dry.
- Additional samples were collected from select wells in the Evaporation Pond area during the first semiannual sampling event to evaluate the underlying valley fill aquifer as part of the Evaporation Ponds Phase 3 Additional Corrective Action Investigation. These wells included MW-2B, MW-4B, MW-5B, MW-6B, MW-7B, MW-11B, MW-18B, MW-22B, OCD-2B, OCD-7B and OCD-8B.
- Five wells in and downgradient from the Evaporation Pond area were analyzed for total arsenic as well as dissolved arsenic using two separate filter sizes as part of the Evaporation Ponds Phase 3 Additional Corrective Action Investigation. These wells included MW-10, MW-18A, MW-70, MW-78 and MW-83.

- **Second Semiannual Sampling Event (September to October 2010):**
  - KWB-P2 was not sampled due to low water volume in the casing. This well is actually a piezometer and had only 4 feet of water present when gauged. The well purges completely dry using either low-flow or submersible pumps.

In general, the 2010 groundwater monitoring program was completed according to the provisions of the Workplan. Minor exceptions to the planned monitoring occurred, but do not significantly alter the effectiveness of the program. A map of monitor well locations is included in Figure 2.

The following conclusions are based upon the information obtained in 2010 and comparison to data from prior years:

- Groundwater flow direction and gradient remains consistent with that measured in past years and is to the east toward the Pecos River. (Figures 3, 4, 5 and 6)

- The extent of PSH plumes was consistent with the extent of PSH reported in 2009. PSH thickness increased significantly between the first and second semiannual sampling events in MW-94, caused by a leak in an underground pipe. (Figure 7)

- Concentrations of organic constituents have generally remained stable or have declined.

- The operation of the recovery trench system was curtailed due to limitations of the Refinery wastewater treatment system early in 2010, which led to degradation of the pumps in the recovery system.

Navajo is currently designing and implementing a significant upgrade of the recovery trench system, including installation of separate product and produced groundwater piping, standardized pumps and improved gauges. A copy of the conceptual design for the upgraded system was submitted to NMED and OCD in January 2011. The upgrades to the recovery system are anticipated to be completed within calendar year 2011. Until the system upgrades have been completed, the existing recovery system will continue to be monitored and operated manually. A summary of production from recovery trenches and wells is included in Table 6.

For a more detailed review of the sampling and monitoring events, please see the 2010 *Annual Groundwater Report* that was sent to OCD in February, 2010.

SUMMARY OF SUMP AND UNDERGROUND LINES TESTED

As part of Navajo's Discharge Permit, we are required to test all sumps and underground process/wastewater lines. Enclosed are two spread sheets, titled **Table 7 NAVAJO REFINING COMPANY SEWER TESTING** and **Table 8 NAVAJO REFINING COMPANY LISTING OF ALL SUMPS** respectively. These spreadsheets detail test date, test method, pass/fail, tested by, and any repairs that were needed or made to the applicable sump or sewer. These spreadsheets are just the summary of the testing we do.The actual test pages, sign off sheets, etc. are kept in a file at the refinery for inspection by OCD as our permit requires.

SUMMARY OF SPILLS, RELEASES AND FIRES

Reportable spills, releases, and fires numbered 40 during 2010. All documents associated with these releases are found in Appendix 1. They are summarized below:

Table 6
Summary of Production from Recovery Trenches and Wells
Navajo Refinery, Artesia, New Mexico

Recovery Well	Volume of Hydrocarbons Recovered (gallons)					Volume of Water Recovered (gallons)				
	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total 2010	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total 2010
RW-1	0	0	0	0	0	0	0	0	0	0
RW-2	0	0	0	0	1	0	0	0	0	0
RW-3	0	0	0	0	0	0	0	0	0	0
RW-4	0	0	0	0	0	0	0	0	0	0
RW-5	1,036	0	0	0	1,036	6,035	0	0	0	6,035
RW-6	0	0	0	0	0	0	0	0	0	0
RW-7	0	0	0	0	0	0	0	0	0	0
RW-8	0	0	0	0	0	0	0	0	0	0
RW-9	0	0	0	0	0	0	0	0	0	0
RW-10	0	0	0	0	0	0	0	0	0	0
RW-11	0	0	0	0	0	0	0	0	0	0
RW-12	0	0	0	0	0	0	0	0	0	0
RW-13	3	0	0	0	3	0	0	0	0	0
RW-14	0	0	0	0	0	0	0	0	0	0
RW-15	0	0	0	0	0	0	0	0	0	0
RW-16	0	0	0	0	0	0	0	0	0	0
RW-17	0	0	0	0	0	0	0	0	0	0
RW-18	0	0	0	0	0	0	0	0	0	0
Chase	35	0	0	1,447	1,482	0	0	0	143,243	143,243
KWB-4	6	0	0	0	6	0	0	0	0	0
KWB-6	2	0	0	0	2	0	0	0	0	0
KWB-8	0	0	0	0	0	0	0	0	0	0
MW-85	1	0	0	0	1	0	0	0	0	0
MW-86	1	0	0	0	1	0	0	0	0	0
MW-94	1	0	0	4,141	4,142	0	0	0	460	460
MW-102	2	0	0	0	2	0	0	0	0	0
TOTAL	1,085	0	0	5,588	**6,673**	6,035	0	0	143,703	**149,738**

NAVAJO REFINING COMPANY TABLE 7
ARTESIA REFINERY
SEWER TESTING

Updated January 10, 2011

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

UNIT NO.	DWG NO.	LINE, BOX OR HUB #	TEST MEDIUM	TEST DATE	TEST METHOD	TESTED BY	TEST PASS/FAIL	COMMENTS / REPAIR METHOD
2	55-Z-32-D-01	PSB 199 - SPS 8702 - PSB 200 - SPS 8701	WATER	10/8/2009	HYDRO	GILES	PASS	
2	55-Z-32-D-01	PSB 199 - SPS 8700 - PSB 198 - SPS 8697 - PSB 195	WATER	10/14/2009	HYDRO	GILES	PASS	
2	55-Z-32-D-01	PSB 195 - SPS 8691 - SPS 8691 - PSB 193 - SPS 8694 - PSB 194	WATER	10/19/2009	HYDRO	GILES	PASS	
2	55-Z-32-D-01	PSB 192 - SPS 8692 - SPS 8691 - SPS 8693	WATER	10/19/2009	HYDRO	GILES	PASS	
2	55-Z-32-D-01	SPS 8699 - SPS 8697 - SPS 8698 - PSB 197	WATER	10/23/2009	HYDRO	GILES	PASS	
2	55-Z-32-D-01	SPS 8695 - PSB 196 - SPS 8696	WATER	10/23/2009	HYDRO	GILES	PASS	
7	55-Z-32-D-18	NPS 8204 TO PSB-36 & PSB-34 TO NPS 8205, PSB -35 TO 8204 TO PSB-36	WATER	6/27/2007	HYDRO	GILES	PASS	
7	55-Z-32-D-18	PSB-36 TO NPS 8206 TO PSB-37 TO 8207 TO PSB-36	WATER	6/29/2007	HYDRO	GILES	PASS	
7	**55-Z-32-D-18**	**NPS 8184 TO PSB-23**	**WATER**	**6/29/2007**	**HYDRO**	**GILES**	**FAIL**	
7	**55-Z-32-D-18**	**NPS 8184 TO PSB-23**	**WATER**	**3/5/2008**	**HYDRO**	**GILES**	**PASS**	**REPAIRED ENTIRE LINE AND RETESTED**
7	55-Z-32-D-18	PSB-23 TO NPS 8186 TO PSB-24 TO NPS 8187 TO PSB-27	WATER	6/29/2007	HYDRO	GILES	PASS	
7	**55-Z-32-D-18**	**NPS 8188 TO PSB-25 TO NPS 8189 TO PSB-26 TO PSB-27**	**WATER**	**7/6/2007**	**HYDRO**	**GILES**	**FAIL**	
7	**55-Z-32-D-18**	**NPS 8188 TO PSB-25 TO NPS 8189 TO PSB-26 TO PSB-27**	**WATER**	**5/5/2008**	**HYDRO**	**GILES**	**PASS**	**REPAIRED ENTIRE LINE AND RETESTED**
7	55-Z-32-D-18	NTLB 01-02 TO NPS 8149, NTLB 02-03 8150	WATER	7/26/2007	HYDRO	GILES	PASS	
7	**55-Z-32-D-18**	**PSB-36 TO NTLB 03 TO NTL 8151 TO NTLB -04**	**WATER**	**7/26/2007**	**HYDRO**	**GILES**	**FAIL**	
7	**55-Z-32-D-18**	**PSB-36 TO NTLB 03 TO NTL 8151 TO NTLB -04**	**WATER**	**5/9/2008**	**HYDRO**	**GILES**	**PASS**	**REPLACED ENTIRE LINE AND RETESTED**
7	**55-Z-32-D-18**	**NPS 8182 TO NPS 8183 TO NPS 8156**	**WATER**	**9/25/2007**	**HYDRO**	**GILES**	**FAIL**	
7	**55-Z-32-D-18**	**NPS 8182 TO NPS 8183 TO NPS 8156**	**WATER**	**5/10/2008**	**HYDRO**	**GILES**	**PASS**	**REPAIRED ENTIRE LINE AND RETESTED**
8	55-Z-32-D-07	TFPS 8141 TO TFPS 8141	WATER	7/23/2009	HYDRO	GILES	PASS	
8	55-Z-32-D-07	TFPS 8141 TO TFPS 8141	WATER	7/30/2009	HYDRO	GILES	PASS	
8	55-Z-32-D-07	TFPS 8141 TO TFB 01	WATER	8/4/2009	HYDRO	GILES	PASS	
8	55-Z-32-D-07	TFPS 8141 TO TFB 01	WATER	8/12/2009	HYDRO	GILES	PASS	
8	55-Z-32-D-07	TFB 01 TO FFB 8142 TO SMB 07 TFPS 8140 FO TFPS 8139	WATER	8/17/2009	HYDRO	GILES	PASS	
8	55-Z-32-D-07	TFPS 8143 TO TFB 01	WATER	8/18/2009	HYDRO	GILES	PASS	
8	55-Z-32-D-08	TFB 01 TO TFB 8144	WATER	8/21/2009	HYDRO	GILES	PASS	
8	55-Z-32-D-04	STLB 06 TO STL 8136	WATER	9/4/2009	HYDRO	GILES	PASS	
8	55-Z-32-D-04	STLB 06 TO STL 8137	WATER	9/4/2009	HYDRO	GILES	PASS	
8	55-Z-32-D-05	STLB 06 TO STL 8137	WATER	9/10/2010	HYDRO	GILES	PASS	
8	55-Z-32-D-06	STLB 06 TO STL 8137	WATER	9/16/2009	HYDRO	GILES	PASS	
8		**TPBS 8147 - TFB 04 - TFB 05 - TFPS 8148 -NMB 02**	**WATER**	**9/7/2009**	**HYDRO**	**GILES**	**FAIL**	
8		**TPBS 8147 - TFB 04 - TFB 05 - TFPS 8148 -NMB 02**	**WATER**	**9/14/2009**	**HYDRO**	**GILES**	**PASS**	**REPAIRED ENTIRE LINE AND RETESTED**
8		**TFBS 8145 - TFBS 8144 - TFB 03 TO TFBS 8146 - NMB 01**	**WATER**	**9/7/2009**	**HYDRO**	**GILES**	**FAIL**	
8		**TFBS 8145 - TFBS 8144 - TFB 03 TO TFBS 8146 - NMB 01**	**WATER**	**9/11/2009**	**HYDRO**	**GILES**	**PASS**	**REPAIRED ENTIRE LINE AND RETESTED**
9	**55-Z-32-D-12**	**NPS 8499 TO PSB-74 TO NPS 8500 TO PSB-73**	**WATER**	**11/4/2008**	**HYDRO**	**GILES**	**FAIL**	
9	**55-Z-32-D-12**	**NPS 8499 TO PSB-74 TO NPS 8500 TO PSB-73**	**WATER**	**11/10/2008**	**HYDRO**	**GILES**	**PASS**	**REPLACED ENTIRE LINE AND RETESTED**
9	**55-Z-32-D-12**	**NPS 8520 - NPS 8529 - NPS 8530 - NPS 8531**	**WATER**	**12/7/2009**	**HYDRO**	**GILES**	**FAIL**	**ENTIRE LINE IS OUT OF SERVICE UNTIL REPLACED**
9	**55-Z-32-D-12**	**NPS 8520 - NPS 8529 - NPS 8530 - NPS 8531**	**WATER**	**12/22/2009**	**HYDRO**	**GILES**	**PASS**	**REPAIRED ENTIRE LINE AND RETESTED**
9	**55-Z-32-D-12**	**NPS 8520 - NPS 8527 - NPS 8528**	**WATER**	**12/7/2009**	**HYDRO**	**GILES**	**FAIL**	**ENTIRE LINE IS OUT OF SERVICE UNTIL REPLACED**
9	**55-Z-32-D-12**	**NPS 8520 - NPS 8527 - NPS 8528**	**WATER**	**1/12/2010**	**HYDRO**	**GILES**	**PASS**	**REPAIRED ENTIRE LINE AND RETESTED**
9	**55-Z-32-D-12**	**NPS 8570 - NPS 8525 - NPS 8526**	**WATER**	**12/7/2009**	**HYDRO**	**GILES**	**FAIL**	**ENTIRE LINE IS OUT OF SERVICE UNTIL REPLACED**
9	**55-Z-32-D-12**	**NPS 8570 - NPS 8525 - NPS 8526**	**WATER**	**2/1/2010**	**HYDRO**	**GILES**	**PASS**	**REPAIRED ENTIRE LINE AND RETESTED**
9	55-Z-32-D-12	NPS 8570 - NPS 8524 - NPS 8522	WATER	12/7/2009	HYDRO	GILES	FAIL	ENTIRE LINE IS OUT OF SERVICE UNTIL REPLACED
9	55-Z-32-D-12	NPS 8570 - NPS 8524 - NPS 8522	WATER	2/11/2010	HYDRO	GILES	PASS	REPAIRED ENTIRE LINE AND RETESTED

NAVAJO REFINING COMPANY TABLE 7
ARTESIA REFINERY
SEWER TESTING

Updated January 10, 2011

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UNIT NO.	DWG NO.	LINE, BOX OR HUB #	TEST MEDIUM	TEST DATE	TEST METHOD	TESTED BY	TEST PASS/FAIL	COMMENTS / REPAIR METHOD
9	55-Z-32-D-12	NPS 8520 - NPS 8523	WATER	12/7/2009	HYDRO	GILES	FAIL	ENTIRE LINE IS OUT OF SERVICE UNTIL REPLACED
9	55-Z-32-D-12	NPS 8520 - NPS 8523	WATER	2/24/2010	HYDRO	GILES	PASS	REPAIRED ENTIRE LINE AND RETESTED
9	55-Z-32-D-12	PSB 103 - NPS 8532 - PSB 102 - NPS 8533 - PSB 101	WATER	12/7/2009	HYDRO	GILES	FAIL	ENTIRE LINE IS OUT OF SERVICE UNTIL REPLACED
9	55-Z-32-D-12	PSB 103 - NPS 8532 - PSB 102 - NPS 8533 - PSB 101	WATER	3/1/2010	HYDRO	GILES	PASS	REPAIRED ENTIRE LINE AND RETESTED
9	55-Z-32-D-12	PSB 101 - NPS 8534 - PSB 100 - PSB 98	WATER	12/7/2009	HYDRO	GILES	FAIL	ENTIRE LINE IS OUT OF SERVICE UNTIL REPLACED
9	55-Z-32-D-12	PSB 103 - NPS 8532 - PSB 102 - NPS 8533 - PSB 101	WATER	3/5/2010	HYDRO	GILES	PASS	REPAIRED ENTIRE LINE AND RETESTED
9	55-Z-32-D-12	PSB 97 - NPS 8536 - PSB 98 - NPS 8537 - PSB 99	WATER	12/7/2009	HYDRO	GILES	FAIL	ENTIRE LINE IS OUT OF SERVICE UNTIL REPLACED
9	55-Z-32-D-12	PSB 97 - NPS 8536 - PSB 98 - NPS 8537 - PSB 99	WATER	3/9/2010	HYDRO	GILES	PASS	REPAIRED ENTIRE LINE AND RETESTED
10	55-Z-32-D-15	NPS 8237 TO NPS 8235	WATER	8/11/2008	HYDRO	GILES	PASS	
10	55-Z-32-D-14	PSB-53 TO NPS 8232 TO PSB-52 TO PSB-54 TO NPS 8237	WATER	8/11/2008	HYDRO	GILES	FAIL	
10	55-Z-32-D-14	PSB-53 TO NPS 8232 TO PSB-52 TO PSB-54 TO NPS 8237	WATER	8/13/2008	HYDRO	GILES	PASS	REPLACED ENTIRE LINE AND RETESTED
10	55-Z-32-D-15	PSB-51 TO PSB-52 TO NPS 8231	WATER	8/11/2008	HYDRO	GILES	FAIL	
10	55-Z-32-D-15	PSB-51 TO PSB-52 TO NPS 8231	WATER	8/13/2008	HYDRO	GILES	PASS	REPLACED ENTIRE LINE AND RETESTED
10	55-Z-32-D-16	PSB-17 TO NPS 8239	WATER	10/13/2008	HYDRO	GILES	PASS	
10	55-Z-32-D-16	PSB-57 TO PSB-56 TO NPS 8240, 8243, 8244	WATER	10/13/2008	HYDRO	GILES	PASS	
10	55-Z-32-D-16	PSB-57 TO PSB-56 TO NPS 8240 TO NPS 8245	WATER	10/14/2008	HYDRO	GILES	PASS	
10	55-Z-32-D-16	PSB-56 TO PSB-55 TO NPS 8241 TO NPS 8248	WATER	10/15/2008	HYDRO	GILES	PASS	
10	55-Z-32-D-16	PSB-56 TO PSB-55 TO NPS 8241	WATER	10/15/2008	HYDRO	GILES	PASS	
10	55-Z-32-D-15	PSB-51 TO NPS 8229 TO NPS 8230	WATER	8/14/2008	HYDRO	GILES	FAIL	
10	55-Z-32-D-15	PSB-51 TO NPS 8229 TO NPS 8230	WATER	8/18/2008	HYDRO	GILES	PASS	REPLACED ENTIRE LINE AND RETESTED
11	55-Z-32-D-19	PSB-04 TO 8194	WATER	6/12/2007	HYDRO	GILES	FAIL	
11	55-Z-32-D-19	PSB-04 TO 8194	WATER	1/10/2008	HYDRO	GILES	PASS	REPLACED ENTIRE LINE AND RETESTED
11	55-Z-32-D-19	NPS 8194 TO 8197 TO 8195 TO PSB-28	WATER	6/14/2007	HYDRO	GILES	FAIL	
11	55-Z-32-D-19	NPS 8194 TO 8197 TO 8195 TO PSB-28	WATER	1/31/2008	HYDRO	GILES	PASS	REPAIRED ENTIRE LINE AND RETESTED
11	55-Z-32-D-19	NPS 8194 TO PSB-32 TO 8198 TO 8199 PSB-29 TO PSB-30	WATER	6/15/2007	HYDRO	GILES	FAIL	
11	55-Z-32-D-19	NPS 8194 TO PSB-32 TO 8198 TO 8199 PSB-29 TO PSB-30	WATER	3/14/2008	HYDRO	GILES	PASS	REPAIRED ENTIRE LINE AND RETESTED
11	55-Z-32-D-19	PSB-32 TO LINE 8200	WATER	6/26/2007	HYDRO	GILES	FAIL	
11	55-Z-32-D-19	PSB-32 TO LINE 8200	WATER	4/8/2008	HYDRO	GILES	PASS	REPLACED ENTIRE LINE AND RETESTED
11	55-Z-32-D-19	PSB-32 TO NPS 8211 PSB-32 TO LINE 8120 TO PSB-40	WATER	6/26/2007	HYDRO	GILES	FAIL	
11	55-Z-32-D-19	PSB-32 TO NPS 8211 PSB-32 TO LINE 8120 TO PSB-40	WATER	4/25/2008	HYDRO	GILES	PASS	REPAIRED ENTIRE LINE AND RETESTED
11	55-Z-32-D-19	NPS 8201 TO PSB-33 TO NPS 8202 TO PSB-07	WATER	6/27/2007	HYDRO	GILES	PASS	
12	55-Z-32-D-19	NPS 8918 TO PSB-05 TO NPS 8167 PSB-10	WATER	6/6/2007	HYDRO	GILES	FAIL	
12	55-Z-32-D-19	NPS 8918 TO PSB-05 TO NPS 8167 PSB-10	WATER	8/8/2007	HYDRO	GILES	PASS	REPLACED ENTIRE LINE AND RETESTED
12	55-Z-32-D-19	NPS 8161 PSB-05 TO PSB-06	WATER	6/9/2007	HYDRO	GILES	FAIL	
12	55-Z-32-D-19	NPS 8161 PSB-05 TO PSB-06	WATER	8/8/2007	HYDRO	GILES	PASS	REPLACED ENTIRE LINE AND RETESTED
12	55-Z-32-D-19	NPS 8162 TO NPS 8161 TO NPS 8168 PSB-06 TO PSB-05	WATER	6/9/2007	HYDRO	GILES	PASS	
13	55-Z-32-D-18	PSB-14 TO NPS 8171 TO NPS 8172 TO NPS 8174 TP [SB-16 TO NPS 8173	WATER	8/15/2007	HYDRO	GILES	FAIL	
13	55-Z-32-D-18	PSB-14 TO NPS 8171 TO NPS 8172 TO NPS 8174 TP [SB-16 TO NPS 8173	WATER	12/10/2007	HYDRO	GILES	PASS	REPLACED ENTIRE LINE AND RETESTED
13	55-Z-32-D-18	PSB-07 TO NPS 8190 TO NTLB 06 TO NTL 8154 TO NPS 8177 TP PSB-19 TO NPS 7178 TO NPS 8179 TO PSB-20 TO NPS 8180 TO PSB-21 TO NTLB 077	WATER	9/20/2007	HYDRO	GILES	FAIL	
13	55-Z-32-D-18	PSB-07 TO NPS 8190 TO NTLB 06 TO NTLB 8154 TO NPS 8177 TP PSB-19 TO NPS 7178 TO NPS 8179 TO PSB-20 TO NPS 8180 TO PSB-21 TO NTLB 077	WATER	4/18/2008	HYDRO	GILES	PASS	REPAIRED ENTIRE LINE AND RETESTED

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ARTESIA REFINERY
SEWER TESTING

Updated January 10, 2011

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UNIT NO.	DWG NO.	LINE, BOX OR HUB #	TEST MEDIUM	TEST DATE	TEST METHOD	TESTED BY	TEST PASS/FAIL	COMMENTS / REPAIR METHOD
13	55-Z-32-D-18	NTLB-04 TO NPS 8152 TO NTLB-05 TO NPS 8209 TO PSB-39 & 8152 TO PSB-42	WATER	9/11/2007	HYDRO	GILES	PASS	
13	55-Z-32-D-18	NTLB-05 TO NTLB-06 TO PSB-41 TO NTL 8153 & PSB-17 & PSB-18 TO NPS 8175 TO NPS 8176	WATER	9/20/2007	HYDRO	GILES	FAIL	
13	55-Z-32-D-18	NTLB-05 TO NTLB-06 TO PSB-41 TO NTL 8153 & PSB-17 & PSB-18 TO NPS 8175 TO NPS 8176	WATER	5/24/2009	HYDRO	GILES	PASS	REPLACED ENTIRE LINE AND RETESTED
13	55-Z-32-D-18	PSB-27 TO NTLB-06 TO NPS 8190 TO NPS 8191	WATER	9/20/2007	HYDRO	GILES	FAIL	
13	55-Z-32-D-18	PSB-27 TO NTLB-06 TO NPS 8190 TO NPS 8191	WATER	4/21/2008	HYDRO	GILES	PASS	REPAIRED ENTIRE LINE AND RETESTED
20	55-Z-32-D-17	NPS 8218 TO NPS 8216 TO PSB-45 TO NPS 8217	WATER	10/5/2007	HYDRO	GILES	PASS	
20	55-Z-32-D-17	NPS 8218 TO PSB-47 TO PSB 8219 TO PSB-46 TO NPS 8220 TO NPS 8221 TO NPS 8222	WATER	10/10/2007	HYDRO	GILES	FAIL	
20	55-Z-32-D-17	NPS 8218 TO PSB-47 TO PSB 8219 TO PSB-46 TO NPS 8220 TO NPS 8221 TO NPS 8222	WATER	6/26/2008	HYDRO	GILES	PASS	REPLACED ENTIRE LINE AND RETESTED
20	55-Z-32-D-17	NPS 8218 TO PSB-50 TO NPS 8227 TO NPS 8226 TO NPS 8224 TO PSB-48 TO NPS 8225	WATER	10/16/2007	HYDRO	GILES	FAIL	
20	55-Z-32-D-17	NPS 8218 TO PSB-50 TO NPS 8227 TO NPS 8226 TO NPS 8224 TO PSB-48 TO NPS 8225	WATER	7/17/2008	HYDRO	GILES	PASS	REPAIRED ENTIRE LINE AND RETESTED
21	55-Z-32-D-02	PSB 136 TO PSB 137 TO SPS 862 TO SPS 8621	WATER	9/11/2009	HYDRO	GILES	FAIL	
21	55-Z-32-D-02	PSB 136 TO PSB 137 TO SPS 862 TO SPS 8621	WATER	9/15/2009	HYDRO	GILES	PASS	REPAIRED ENTIRE LINE AND RETESTED
21	55-Z-32-D-02	SPS 8618 - SPS 8616 - PSB 135 - PSB 134 - PSB 136	WATER	9/11/2009	HYDRO	GILES	FAIL	
21	55-Z-32-D-02	SPS 8618 - SPS 8616 - PSB 135 - PSB 134 - PSB 136	WATER	9/17/2009	HYDRO	GILES	PASS	REPAIRED ENTIRE LINE AND RETESTED
21	55-Z-32-D-02	PSB 139 - PSB 139 - PSB 140 - PSB 141 - PSB 143 - SPS 8622 - SPS 8323 - SPS 8324 - SPS 8325	WATER	9/23/2009	HYDRO	GILES	FAIL	
21	55-Z-32-D-02	PSB 139 - PSB 139 - PSB 140 - PSB 141 - PSB 143 - SPS 8622 - SPS 8323 - SPS 8324 - SPS 8325	WATER	9/28/2009	HYDRO	GILES	PASS	REPAIRED ENTIRE LINE AND RETESTED
21	55-Z-32-D-02	PSB 149 - PSB 148 - PSB 147 - PSB 146 -SPS 8031 - SPS 8636 - SPS 3632	WATER	9/30/2009	HYDRO	GILES	PASS	
33	55-Z-32-D-10	NPS 8553 - NPS 8557 - NPS 8558 - NPS 8559	WATER	10/8/2009	HYDRO	GILES	PASS	
33	55-Z-32-D-10	NPS 8559 - 8558 - 8557 - NPS 8553	WATER	10/9/2009	HYDRO	GILES	PASS	
33	55-Z-32-D-10	NPS 8553 - 8556 - 8555 - 8552 - 8551 - 8550	WATER	10/12/2009	HYDRO	GILES	PASS	
33	55-Z-32-D-10	NPS 8553 - NPS 8552 - NPS 8551 - NPS 8556 - NPS 8550 - NPS 8555	WATER	10/14/2009	HYDRO	GILES	PASS	
33	55-Z-32-D-10	NPS 8568 - 8569 - 8570	WATER	10/30/2009	HYDRO	GILES	PASS	
33	55-Z-32-D-10	NPS 8568 - PSB 267 - PSB 262	WATER	11/4/2009	HYDRO	GILES	PASS	
33	55-Z-32-D-10	NPS 8564 - 8563 - 8562 - 8550	WATER	11/8/2009	HYDRO	GILES	FAIL	
33	55-Z-32-D-10	NPS 8564 - 8563 - 8562 - 8550	WATER	11/20/2009	HYDRO	GILES	PASS	REPAIRED ENTIRE LINE AND RETESTED
33	55-Z-32-D-10	NPS 8560 - 8561 - 8550	WATER	11/24/2009	HYDRO	GILES	PASS	
33	55-Z-32-D-10	NPS 8565 - 8566 - 8567	WATER	11/27/2009	HYDRO	GILES	FAIL	
33	55-Z-32-D-10	NPS 8565 - 8566 - 8567	WATER	12/7/2009	HYDRO	GILES	PASS	REPAIRED ENTIRE LINE AND RETESTED
37	55-Z-32-D-19	NPS 8160 FROM PSB-01 TO PSB-02	WATER	5/30/2007	HYDRO	GILES	PASS	
37	55-Z-32-D-19	NPS 8727 FROM PSB-02 TO PSB-02A	WATER	5/30/2007	HYDRO	GILES	PASS	
37	55-Z-32-D-19	NPS 8726 TO PSB-02A	WATER	5/31/2007	HYDRO	GILES	PASS	
37	55-Z-32-D-19	NPS 8158 FROM PSB-02A TO PSB-03	WATER	5/31/2007	HYDRO	GILES	PASS	
37	55-Z-32-D-19	NPS 8726 TO PSB-02A	WATER	5/31/2007	HYDRO	GILES	PASS	
37	55-Z-32-D-19	NPS 8164 TO PSB-07 , PSB-08 TO NMB-04	WATER	6/22/2007	HYDRO	GILES	FAIL	
37	55-Z-32-D-19	NPS 8164 TO PSB-07 , PSB-08 TO NMB-04	WATER	7/2/2007	HYDRO	GILES	PASS	REPAIRED ENTIRE LINE AND RETESTED

NAVAJO REFINING COMPANY TABLE 7
ARTESIA REFINERY
SEWER TESTING

Updated January 10, 2011

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

UNIT NO.	DWG NO.	LINE, BOX OR HUB #	TEST MEDIUM	TEST DATE	TEST METHOD	TESTED BY	TEST PASS/FAIL	COMMENTS / REPAIR METHOD
37	55-Z-32-D-19	NPS 8157 TO PSB-04 TO NPS 8198	WATER	6/22/2007	HYDRO	GILES	PASS	
37	55-Z-32-D-19	NPS 8213 TO PSB-43	WATER	10/2/2007	HYDRO	GILES	PASS	
37	**55-Z-32-D-19**	**NPS 8215 TO NPS 8214 TO PSB-44 TO PSB-45**	**WATER**	**10/2/2007**	**HYDRO**	**GILES**	**FAIL**	
37	**55-Z-32-D-19**	**NPS 8215 TO NPS 8214 TO PSB-44 TO PSB-45**	**WATER**	**6/17/2008**	**HYDRO**	**GILES**	**PASS**	**REPAIRED ENTIRE LINE AND RETESTED**
41	55-Z-32-D-02	STLB 03 - SPS 8715 - SPS 8716 - PSB 710 - SPS 8717 - PSB 709	WATER	6/6/2010	HYDRO	GILES	PASS	
41	55-Z-32-D-02	SPS 8718 - PSB 711 - SPS 8719 - SPS 8720 - PSB 712 - SPS 871	WATER	6/9/2010	HYDRO	GILES	PASS	
41	55-Z-32-D-02	PSB 211 - SPS 8722 - PSB 713 - SPS 8723 - SPS 8724 - SPS 8725 - SPS 8723	WATER	6/12/2010	HYDRO	GILES	PASS	
41	55-Z-32-D-02	STLB 08 - STL 8132 - SPS 8713 - SPS 8714 - PSB 208	WATER	6/15/2010	HYDRO	GILES	PASS	
41	55-Z-32-D-01	STLB 08 - STL 8131 - STLB 02 - SPS 8711 - PSB 205	WATER	6/15/2010	HYDRO	GILES	PASS	
41	55-Z-32-D-01	PSB 205 - SPS 8710	WATER	6/22/2010	HYDRO	GILES	PASS	
41	55-Z-32-D-01	PSB 207 - STLB 02 - STL 8131 PSB 206 - STLB 01	WATER	6/22/2010	HYDRO	GILES	PASS	
41	55-Z-32-D-01	PSB 205 - SPS 8709 - PSB 204	WATER	6/29/2010	HYDRO	GILES	PASS	
41	55-Z-32-D-01	PSB 204 - SPS 8707 - PSB 203 - PSB 202 - SPS 8706	WATER	6/29/2010	HYDRO	GILES	PASS	
70	**55-Z-32-D-14**	**NPS 8473 TO NPS 8474**	**WATER**	**3/12/2009**	**HYDRO**	**GILES**	**FAIL**	
70	**55-Z-32-D-14**	**NPS 8473 TO NPS 8474**	**WATER**	**3/16/2009**	**HYDRO**	**GILES**	**PASS**	**REPLACED ENTIRE LINE AND RETESTED**
70	**55-Z-32-D-14**	**NPS 8473 TO NPS 8462 TO NPS 8470**	**WATER**	**3/13/2009**	**HYDRO**	**GILES**	FAIL	
70	**55-Z-32-D-14**	**NPS 8473 TO NPS 8462 TO NPS 8470**	**WATER**	**3/26/2009**	**HYDRO**	GILES	PASS	**REPLACED ENTIRE LINE AND RETESTED**
70	**55-Z-32-D-14**	**NPS 8473 TO NPS 8474**	**WATER**	**3/23/2009**	**HYDRO**	GILES	FAIL	
70	**55-Z-32-D-14**	**NPS 8473 TO NPS 8474**	**WATER**	**3/26/2009**	**HYDRO**	GILES	PASS	**REPAIRED ENTIRE LINE AND RETESTED**
70	**55-Z-32-D-14**	**NPS 8470 TO NPS 8473**	**WATER**	**4/17/2009**	**HYDRO**	**GILES**	**FAIL**	
70	**55-Z-32-D-14**	**NPS 8470 TO NPS 8473**	**WATER**	**4/22/2009**	**HYDRO**	**GILES**	**PASS**	**REPAIRED ENTIRE LINE AND RETESTED**
70	55-Z-31-D-14	NPS 8470 TO NPS 8464 TO NPS 8453	WATER	4/17/2009	HYDRO	GILES	PASS	
70	**55-Z-31-D-15**	**NPS 8470 TO NPS 8465**	**WATER**	**4/21/2009**	**HYDRO**	**GILES**	FAIL	
70	**55-Z-31-D-15**	**NPS 8470 TO NPS 8465**	**WATER**	**4/24/2009**	**HYDRO**	**GILES**	**PASS**	**REPAIRED ENTIRE LINE AND RETESTED**
70	**55-Z-31-D-14**	**NPS 8470 TO NPS 8471**	**WATER**	**4/22/2009**	**HYDRO**	**GILES**	FAIL	
70	**55-Z-31-D-14**	**NPS 8470 TO NPS 8471**	**WATER**	**4/27/2009**	**HYDRO**	**GILES**	**PASS**	**REPAIRED ENTIRE LINE AND RETESTED**
70	55-Z-32-D-14	NPS 8470 TO NPS 8473	WATER	4/23/2009	HYDRO	GILES	PASS	
70	**55-Z-32-D-14**	**NPS 8470**	**WATER**	**5/4/2009**	**HYDRO**	**GILES**	**FAIL**	
70	**55-Z-32-D-14**	**NPS 8470**	**WATER**	**5/8/2009**	**HYDRO**	**GILES**	**PASS**	**REPAIRED ENTIRE LINE AND RETESTED**
70	**55-Z-32-D-15**	**NPS 8471 TO NPS 8470**	**WATER**	**6/15/2009**	**HYDRO**	**GILES**	**FAIL**	
70	**55-Z-31-D-15**	**NPS 8470 TO NPS 8465**	**WATER**	**6/15/2009**	**HYDRO**	**GILES**	**PASS**	**REPAIRED ENTIRE LINE AND RETESTED**
70	55-Z-32-D-15	NPS 8465-8467 TO 8468 TO 8569 TO 8455	WATER	6/15/2009	HYDRO	GILES	PASS	
70	55-Z-32-D-15	NPS 8466 TO NPS 8455	WATER	6/23/2009	HYDRO	GILES	PASS	
80	55-Z-32-D-13	NPS 8512 - PSB 91 & PSB 92 - NPS 8516 - NPS 8515 - NPS 8514	WATER	4/21/2010	HYDRO	GILES	PASS	
80	55-Z-32-D-13	NPS 8514 - PSB 94 - NPS 8513	WATER	4/29/2010	HYDRO	GILES	PASS	
80	55-Z-32-D-13	NPS 8513 - PSB 95	WATER	4/29/2010	HYDRO	GILES	PASS	
80	55-Z-32-D-13	NPS 8130 - NPS 8502	WATER	5/6/2010	HYDRO	GILES	PASS	
80	55-Z-32-D-13	NPS 8507 - PSB 87 -NPS 8509 - PSB 89	WATER	5/13/2010	HYDRO	GILES	PASS	
80	55-Z-32-D-13	PSB 89 -NPS 8510 - PSB 90 NPS 8511 - PSB 91	WATER	5/13/2010	HYDRO	GILES	PASS	
80	55-Z-32-D-13	PSB 87 - NPS 8508 - PSB 88	WATER	5/18/2010	HYDRO	GILES	PASS	
80	55-Z-32-D-13	NPS 8503 - NPS 8505 - NPS 8504 - PSB 85 - PSB 86	WATER	5/18/2010	HYDRO	GILES	PASS	
44/45	55-Z-32-D-14	PSB 84 TO NPS 8475-PSB 83-NPS 8476-NPS 8489- 8490	WATER	7/2/2009	HYDRO	GILES	PASS	
44/45	55-Z-32-D-14	NPS 8488 TO NPS 8487 TO PSB 75	WATER	7/8/2009	HYDRO	GILES	PASS	

NAVAJO REFINING COMPANY TABLE 7
ARTESIA REFINERY
SEWER TESTING

Updated January 10, 2011

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UNIT NO.	DWG NO.	LINE, BOX OR HUB #	TEST MEDIUM	TEST DATE	TEST METHOD	TESTED BY	TEST PASS/FAIL	COMMENTS / REPAIR METHOD
44/45	55-Z-32-D-14	NPS 8487 - NPS 8495 - NPS 8490 - NPS 8486	WATER	7/11/2009	HYDRO	GILES	PASS	
44/45	55-Z-32-D-14	PSB 75 - NPS 8486	WATER	7/16/2009	HYDRO	GILES	PASS	
44/45	55-Z-32-D-14	PSB 78 - NPS 8483 - PSB 77 - NPS 8482 - NPS 8462 - 8484 - 8485	WATER	7/20/2009	HYDRO	GILES	PASS	

NAVAJO REFINING COMPANY
ARTESIA REFINERY
LISTING OF ALL SUMPS

REVISION #8 — ALL SUMPS SHOWN ON DRAWING 55-Z-32-D-01 — TABLE 8 — JANAURY 10, 2011

NO. OF SUMPS	SUMP ID #	LOCATION	DESCRIPTION	APPROX DIMENSIONS	LAST TEST DATE	NEXT TEST DUE	TEST PASS / FAIL	TESTED BY	TEST METHOD	REPAIR METHOD	COMMENT
1	02SUMP01	UNDER H-20	CONCRETE BOX	2'-0" x 2'-0" x 3'-0" D	8/18/2009	8/18/2014	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
2	02SUMP02	UNDER H-19	CONCRETE BOX	2'-6" x 2'-6" x 15" D	6/1/2005	6/1/2010	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
	02SUMP02	UNDER H-19	CONCRETE BOX	2'-6" x 2'-6" x 15" D	8/5/2010	8/5/2015	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
3	08SUMP01	UNLOADING RACK SOUTH OF 400 TANK	CONCRETE BOX	7'-6" L x 4'-6" W x 3'-0" D	8/25/2008	8/25/2013	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
4	08SUMP02	SPILL COLLECTION BOX AT CBO RR RACK (NORTH)	STEEL BOX	2' x 2' x 2'	8/18/2009	8/18/2014	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
5	08SUMP03	SPILL COLLECTION BOX AT CBO RR RACK (SOUTH)	STEEL BOX	2' x 2' x 2'	8/18/2009	8/18/2014	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
6	08SUMP04	CBO BETWEEN TRUCK RACK & RAILROAD (NORTH)	CONCRETE BOX	8' x 6' x 8'	8/18/2009	8/18/2014	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
7	08SUMP05	CBO BETWEEN TRUCK RACK & RAILROAD (SOUTH)	CONCRETE BOX	8' x 6' x 8'	8/18/2009	8/18/2014	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
8	08SUMP06	P-139 EAST OF CBO RACK	CONCRETE BOX	3' x 3' x 3'	8/18/2009	8/18/2014	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
9	08SUMP07	WATER DRAW NORTH SIDE OF 834 TANK	55 GALLON STEEL DRUM	N/A	8/21/2009	8/21/2014	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
10	08SUMP08	SOUTHWEST CORNER OF 834 TANK	U/G STEEL TANK	N/A	2/14/2005	2/14/2010	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
	08SUMP08	SOUTHWEST CORNER OF 834 TANK	U/G STEEL TANK	N/A	8/5/2010	8/5/2015	FAIL/PASS	GILES, INC.	HYDRO/LEVEL CHECK		METAL BOX LEAKED, REPLACED WITH CONCRETE BOX
	08SUMP09	836 TANK WATER DRAW PIT	CONCRETE BOX	18' x 6' x 2'	N/A	N/A					LOCATED IN NE CORNER OF DIKE - **OUT OF SERVICE**
11	08SUMP10	WATER DRAW PIT EAST SIDE OF 835 TANK	CONCRETE BOX	9'-8" x 5'-8" x 2'-6"	8/21/2009	8/21/2014	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
	08SUMP11	SLURRY SLINGER SLUDGE PIT	STEEL BOX	9' x 7' x 5'	N/A	N/A					**OUT OF SERVICE**
	08SUMP12	SLURRY SLINGER SLUDGE PIT	STEEL BOX	9' x 7' x 5'	N/A	N/A					**OUT OF SERVICE**
	08SUMP13	SLURRY SLINGER SLUDGE PIT	STEEL BOX	9' x 7' x 5'	N/A	N/A					**OUT OF SERVICE**
12	08SUMP14	WATER DRAW PIT AT EAST SIDE OF 815 TANK	CONCRETE BOX	8'-0" x 4'-0" x 3'-9" D	1/2/2006	1/2/2011	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
	08SUMP14	WATER DRAW PIT AT EAST SIDE OF 815 TANK	CONCRETE BOX	8'-0" x 4'-0" x 3'-9" D	8/5/2010	8/5/2015	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
13	08SUMP15	BLENDER PUMP PIT	CONCRETE BOX	4' x 4' x 4'	8/27/2008	8/27/2013	PASS	GILES, INC.	HYDRO/LEVEL CHECK		NORTH OF BLENDER BUILDING
14	08SUMP16	SEWER BOX LIFTING STATION SW CORNER OF DIKE @ 401 TK	CONCRETE BOX	8' x 8' x 8'	8/21/2009	8/21/2014	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
15	08SUMP17	WEST SIDE OF 450 TANK	CONCRETE BOX	3' x 3' x 4'	8/21/2009	8/21/2014	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
16	08SUMP18	WEST SIDE OF 415 TANK	CONCRETE BOX	8' x 6' x 6' DEEP	8/21/2009	8/21/2014	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
17	08SUMP19	SE CORNER #2 YARD AT NAPHTHA TRANSFER PUMPS	CONCRETE BOX	3' x 3' x 3'	8/21/2009	8/21/2014	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
18	08SUMP20	WEST OF #3 BLENDER	CONCRETE BOX	3' x 3' x 3'	8/27/2008	8/27/2013	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
19	08SUMP21	ASPHALT RACK SOUTH OF 433 TANK	CONCRETE BOX	4' x 4' x 4'	9/20/2004	9/20/2009	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
	08SUMP21	ASPHALT RACK SOUTH OF 433 TANK	CONCRETE BOX	4' x 4' x 4'	8/5/2010		FAIL	GILES, INC.	HYDRO/LEVEL CHECK		
	08SUMP21	ASPHALT RACK SOUTH OF 433 TANK	CONCRETE BOX	4' x 4' x 4'	8/12/2010	8/12/2015	PASS	GILES, INC.	HYDRO/LEVEL CHECK		REPAIRS COMPLETE
	08SUMP22	WATER DRAW PIT AT 437 TANK	CONCRETE BOX	20' x 40' x 3'	N/A	N/A					**OUT OF SERVICE, REMOVED BY ENG. PROJECTS JAN. 2008**
	08SUMP23	WATER DRAW PIT AT 439 TANK	CONCRETE BOX	20' x 40' x 3'	N/A	N/A					**OUT OF SERVICE**
20	08SUMP24	SOUTH OF 438 TANK	U/G STEEL TANK	N/A	8/27/2009	8/27/2014	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
21	08SUMP25	WEST OF 400 TANK	U/G STEEL TANK	N/A	8/17/2009	8/17/2014	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
22	08SUMP26	SPILL RETENTION SUMPS @ GASOLINE LOADING RACK	CONCRETE BOX	2' x 2'-6" x 2'	9/21/2008	9/21/2013	PASS	GILES, INC.	HYDRO/LEVEL CHECK		HOLLY ENERGY PARTNERS
23	08SUMP27	SPILL RETENTION SUMPS @ GASOLINE LOADING RACK	CONCRETE BOX	2' x 2'-6" x 2'	9/2/2008	9/2/2013	PASS	GILES, INC.	HYDRO/LEVEL CHECK		HOLLY ENERGY PARTNERS
24	08SUMP28	NORTH SIDE OF 110 TANK	U/G STEEL TANK	N/A	8/27/2009	8/27/2014	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
25	08SUMP29	LIFT STATION @ FILTER MANIFOLD S. OF LPG LOADING RACK	U/G STEEL TANK	6' DIAMETER x 4' DEEP	8/27/2009	8/27/2014	PASS	GILES, INC.	HYDRO/LEVEL CHECK		HOLLY ENERGY PARTNERS
26	08SUMP30	SUMP BETWEEN 431 TANK AND 432 TANK	CONCRETE BOX	6' x 8' x 7'-6"	8/31/2009	8/31/2014	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
27	08SUMP31	SOUTH ASPHALT LOADING RACK	CONCRETE BOX	5' x 8'-6" x 6'	8/31/2009	8/31/2014	PASS	GILES, INC.	HYDRO/LEVEL CHECK		LOCATED UNDERNEATH DOGHOUSE AT RACK
	08SUMP32	SOUTHWEST OF 834 TANK	U/G STEEL TANK	N/A	N/A	N/A					**OUT OF SERVICE**
28	08SUMP33	EASTOF 115 TANK BY HEP PUMPS	METAL BOX	5' x 3' x 3'	12/8/2008		FAIL	GILES, INC.	HYDRO/LEVEL CHECK		
28	08SUMP33	EASTOF 115 TANK BY HEP PUMPS	METAL BOX	5' x 3' x 3'	1/15/2009	1/15/2014	PASS	GILES, INC.	HYDRO/LEVEL CHECK		**REPAIRED METAL BOX**
29	08SUMP34	EL PASO PUMP STATION	METAL BOX	6' x 4' x 8'	12/5/2008	12/5/2013	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
30	08SUMP35	EL PASO PUMP STATION	METAL BOX	5' x 3' x 3'	12/5/2008	12/5/2013	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
31	08SUMP36	EL PASO PUMP STATION	METAL BOX	6' x 4'	12/5/2008	12/5/2013	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
32	08SUMP37	FOUR CORNERS STATION "HEP"	METAL BOX	6' x 4'	12/5/2008	12/5/2013	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
33	08SUMP38	FOUR CORNERS STATION "HEP"	METAL BOX	6' x 4'	12/5/2008	12/5/2013	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
34	08SUMP39	SW OF 1225 TANK	CONCRETE BOX	7' x 11' x 8' D		6/1/2014					**New installation in June 2009**
35	09SUMP01	FLUORIDE PRECIPITATOR	CONCRETE BOX	4'-0" x 4'-0" x 3' D	10/25/2007		FAIL	GILES, INC.	HYDRO/LEVEL CHECK		
35	09SUMP01	FLUORIDE PRECIPITATOR	CONCRETE BOX	4'-0" x 4'-0" x 3' D	10/27/2007	10/26/2012	PASS	GILES, INC.	HYDRO/LEVEL CHECK		REPAIRED WITH CONCRETE PATCH
36	10SUMP01	SLURRY BARREL @ NORTH PLANT SOUTH OF X-245	1/2 - 55 GALLON STEEL DRUM	N/A	N/A	Replace as req'd					LOCATED IN NORTH PLANT NW OF OLD COMFORT STATION
37	10SUMP02	SLURRY BARREL @ NORTH PLANT SOUTH OF X-245	1/2 - 55 GALLON STEEL DRUM	N/A	N/A	Replace as req'd					LOCATED IN NORTH PLANT NW OF OLD COMFORT STATION
38	10SUMP03	FLUE GAS SCRUBBER - FCCU	CONCRETE BOX	4'-0" x 4'-0" x 4' D	10/25/2007	10/24/2012	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
39	10SUMP04	FLUE GAS SCRUBBER - FCCU	CONCRETE BOX	4'-0" x 4'-0" x 3' D	10/25/2007		FAIL	GILES, INC.	HYDRO/LEVEL CHECK		
39	10SUMP04	FLUE GAS SCRUBBER - FCCU	CONCRETE BOX	4'-0" x 4'-0" x 3' D	11/3/2007	11/2/2012	PASS	GILES, INC.	HYDRO/LEVEL CHECK		REPAIRED WITH CONCRETE PATCH
	10SUMP04	FLUE GAS SCRUBBER - FCCU	CONCRETE BOX	4'-0" x 4'-0" x 3' D	8/5/2010	8/5/2015	PASS	GILES, INC.	HYDRO/LEVEL CHECK		

NAVAJO REFINING COMPANY
ARTESIA REFINERY
LISTING OF ALL SUMPS

REVISION #8 — ALL SUMPS SHOWN ON DRAWING 55-Z-32-D-01 — TABLE 8 — JANAURY 10, 2011

NO. OF SUMPS	SUMP ID #	LOCATION	DESCRIPTION	APPROX DIMENSIONS	LAST TEST DATE	NEXT TEST DUE	TEST PASS / FAIL	TESTED BY	TEST METHOD	REPAIR METHOD	COMMENT
40	21SUMP01	UNDER D-202 (VACUUM UNIT)	CONCRETE BOX	2'-6" x 2'-6" x 2'-6" D	10/29/2007	10/28/2012	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
	21SUMP01	UNDER D-202 (VACUUM UNIT)	CONCRETE BOX	2'-6" x 2'-6" x 2'-6" D	8/12/2010	8/12/2015	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
41	21SUMP02	EAST OF X-407 ON BRADLEY BLVD	CONCRETE BOX	1'-6" x 1'-6" x 15" D	10/29/2007	10/28/2012	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
	21SUMP02	EAST OF X-407 ON BRADLEY BLVD	CONCRETE BOX	1'-6" x 1'-6" x 15" D	8/12/2010	8/12/2015	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
	43SUMP01	WEST END OF S.P. ALKY.C.T. Y-2 (NORTH)	CONCRETE BOX	6'-0" x 8'-0" x 6'-6" D	N/A	N/A					OUT OF SERVICE
	43SUMP02	WEST END OF S.P. ALKY.C.T. Y-2 (SOUTH)	CONCRETE BOX	10'-0" x 8'-0" x 6'-6" D	N/A	N/A					OUT OF SERVICE
42	44SUMP16	H-21 PUMP OUT SUMP (NW CORNER OF CURBED AREA AT H-21)	CONCRETE BOX	2'-8" x 2'-8" x 2'-0" D	10/29/2007	10/28/2012	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
43	46SUMP01	NORTH TOOL ROOM	CONCRETE BOX	2' x 2' x 2'	9/4/2009	9/4/2014	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
44	46SUMP02	SE CORNER OF TRUCKING YARD	CONCRETE BOX	3' x 3' x 2'-6"	9/4/2009	9/4/2014	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
45	46SUMP03	DIESEL STORAGE TANK AT MULCOCK WELL GENERATOR	FIBERGLASS	10' x 8' x 1'-9"	9/3/2009		FAIL	GILES, INC.	HYDRO/LEVEL CHECK		
45	46SUMP03	DIESEL STORAGE TANK AT MULCOCK WELL GENERATOR	FIBERGLASS	10' x 8' x 1'-9"	9/7/2009	9/7/2014	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
	46SUMP04	NP BUNDLE SLAB CATCH BASIN	CONCRETE BOX W/ BAFFLE	50' x 3' x 3'-6"	7/14/2004	7/14/2009	PASS	GILES, INC.			NOT A SUMP - BOX TIED TO SEWER LINE (SEE SEWER DWGS)
46	46SUMP05	DIESEL STORAGE TANK SOUTH OF #2 WAREHOUSE	FIBERGLASS	16' x 8' x 1'-9"	8/28/2008	8/28/2013	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
47	46SUMP06	HYDRAULIC FLUID CONTAINMENT SOUTH OF #2 WAREHOUSE	FIBERGLASS	7'-6" x 6'-6" x 1'-6"	8/28/2008	8/28/2013	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
48	46SUMP07	UNLEADED GASOLINE STORAGE TK SOUTH OF WELDING SHOP	FIBERGLASS	12' x 8' x 2'	8/28/2008	8/28/2013	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
	46SUMP08	SP BUNDLE/SLAB CATCH BASIN	CONCRETE BOX W/ BAFFLE	50' x 3' x 3'-6"	7/13/2004	7/13/2009	PASS	GILES, INC.			NOT A SUMP - BOX TIED TO SEWER LINE (SEE SEWER DWGS)
49	46SUMP09	CHEMICAL PAD WEST END OF #2 YARD	CONCRETE BOX	3' x 3' x 3'	9/16/2009	9/16/2014	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
50	46SUMP10	EAST OF MECHANIC SHOP	CONCRETE BOX	4' x 2'-9" x 3'	9/4/2008	9/4/2013	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
51	46SUMP11	EAST OF MECHANIC SHOP	CONCRETE BOX	3' x 3' x 3'	9/16/2009	9/16/2014	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
52	46SUMP12	NW CORNER OF ELECTRICAL SHOP	U/G STEEL TANK	N/A	9/5/2008	9/5/2013	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
53	46SUMP13	NORTH OF INSTRUMENT SHOP	CONCRETE BOX	5' x 5' x 5'	9/4/2008	9/4/2013	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
54	46SUMP15	SAMPLE SUMP NORTH OF LAB	CONCRETE BOX	4' x 4' x 4' (approx)	8/12/2010	8/12/2015	PASS	GILES, INC.	HYDRO/LEVEL CHECK		
55	46SUMP16	CHEMICAL STORAGE AREA, NORTH OF WAREHOUSE "EAST"	CONCRETE BOX		8/12/2010	8/12/2015	PASS	GILES, INC.	HYDRO/LEVEL CHECK		"NEW ADDITION" REQUIRES ADDED TO DRAWING
56	46SUMP17	CHEMICAL STORAGE AREA, NORTH OF WAREHOUSE "WEST"	CONCRETE BOX		8/12/2010	8/12/2015	PASS	GILES, INC.	HYDRO/LEVEL CHECK		"NEW ADDITION" REQUIRES ADDED TO DRAWING
57	63SUMP01	NORTHSIDE OF HYDROGEN UNIT	CONCRETE BOX	3'-0" x 3'-0" x 4'-3" D	8/12/2010	8/12/2015	PASS	GILES, INC.	HYDRO/LEVEL CHECK		THIS SUMP WILL BECOME PSB WHEN NEW H2 UNIT IS BUILT
						Test in 2011					

1) On January 10, 2010, Tk-836 (wastewater) was overrun onto the ground. The level indicator had frozen giving the operators a faulty reading. Approximately 1360 bbls of wastewater mixed with snow and rain was recovered using a vacuum truck. The C-141 for this release along with sampling data, photos and waste manifests are included in Appendix 1.

2) On February 1, 2010, a sump near Tk-836 was overrun (wastewater) while operators were skimming the tank. Ten bbls were released with 8 bbls recovered using a vacuum truck. The C-141 for this release along with sampling data and photos are included in Appendix 1.

3) On February 20, 2010, a leak in our Effluent Line was discovered between the Chukka and Gaines Injection Wells. The line was blocked in and repaired. Volume of the release is unknown and no liquids were recovered. The C-141 for this release along with sampling data and photos are included in Appendix 1.

4) On February 23, 2010, a rail loading valve was left open and 8 bbls of Carbon Black Oil (CBO) was spilled. The valve was closed as soon as it was noticed. None of the product could be recovered. The C-141 for this release along with sampling data, waste manifests and photos are included in Appendix 1.

5) On April 15, 2010, a leak in our Effluent Line was discovered between the Chukka and Gaines Injection Wells. The line was blocked in and repaired. Volume of the release is unknown and no liquids were recovered. The C-141 for this release along with sampling data is included in Appendix 1.

6) On April 28, 2010, as part of our PraxAir leak detection program, two leaks were found in underground lines. The first was near Tk-124. This leak was a pin hole with no saturated soil around the leak. The leak was clamped. The second leak was near Tk-115. Again, it was a pinhole with no saturated soil. It was also clamped. The C-141s for these releases along with sampling data, waste manifests and photos are included in Appendix 1.

7) On May 3, 2010, a leak in our Effluent Line was discovered between the Chukka and Mewbourne Injection Wells. The line was blocked in and repaired. Volume of the release is unknown and no liquids were recovered. The C-141 for this release along with sampling data and photos are included in Appendix 1.

8) On July 6, 2010, a leak of Gas Oil was discovered on the northwest side of Tk-433. Upon investigation, it was discovered that Tk-433 had a hole in its floor. The tank was emptied and repaired. Contaminated soil was dug up around and under the tank but the integrity of the tank was being compromised. Digging was halted and the remainder of contamination had to

be left in place. The C-141 for this release along with sampling data, waste manifests and photos are included in Appendix 1.

9) On August 12, 2010, a bleeder valve on a diesel pipeline was left open by our Pipeline Subsidiary Holly Energy Partners. Fourteen bbls of diesel was released with 13 bbls recovered. Personnel on the scene immediately used shovels to dig a hole for the product to run into and a vacuum truck was nearby to recover product. The C-141 for this release along with waste manifests and photos are included in Appendix 1.

10) On August 21, 2010, our oily water sewers overflowed during a heavy rainstorm. Two trash pumps were put into service until the level in the sewer came down. Five bbls of oily water were released with none recovered. The C-141 for this release along with sampling data, waste manifests and photos are included in Appendix 1.

11) On September 27, 2010, a leak in our Effluent Line was discovered between the Chukka and Gaines Injection Wells. The line was blocked in and repaired. Volume of the release is unknown and no liquids were recovered. The C-141 for this release along with sampling data and photos is included in Appendix 1.

12) On October 25, 2010, while gauging monitor wells, it was discovered that MW-94 had thirteen feet of JP-8 in it. Underground lines in the area were shut in and hydrotesting began. It was found that a JP-8 line going to Tk-835 was leaking. The line was dug up and repaired. Pumping in MW-94 was begun as well as in RW-8. Those efforts continue currently. The C-141 for this release along with photos are included in Appendix 1.

13) On November 5, 2010, a release of twenty three (23) bbls of waste water was reported. A fast line being used to bypass the Alky API had come out of the sewer box it was in and released the water to ground. Twenty bbls of water were recovered by vacuum truck. The C-141 for this release along with sampling data, waste manifests and photos are included in Appendix 1.

14) On November 27, 2010, Y-12 Cooling Tower overflowed when City Water was being added as make up. When the spill was noticed, the City frsh water was turned off. The C-141 for this release along with sampling data and MSDS of the additive added to the cooling tower are included in Appendix 1.

15) On December 2, 2010, a leak was discovered on our Effluent Line near the Mewbourne Injection Well. The line was blocked in and repaired. Volume of the release is unknown and no liquids were recovered. The C-141 for this release along with sampling data, waste manifests and photos are included in Appendix 1.

10) On January 30, 2010, there was a small flange fire on D-354 in the CCR Unit. The fire was extinguished with a steam hose. There were no injuries and no cleanup actions needed.

11) On March 2, 2010, Tk-82 caught fire while being welded on. The fire was extinguished by Navajo's Fire Team. Two men died and two others were seriously injured in the fire. The tank was extensively damaged.

12) On April 2, 2010, hydrogen caught fire in the Diesel Hydrotreater Unit when a nitrogen purge valve was mistakenly opened. The valve was closed to put the fire out. A nearby monitor also helped putting the fire out. There were no injuries and no cleanup actions needed.

13) On April 17, 2010, a pump seal on P-928 in the FCC Unit leaked Gas Oil and caught fire. The fire was extinguished with a hand held fire extinguisher. There were no injuries and no cleanup actions needed.

14) On April 17, 2010, a flange in the CCR Unit developed a small leak and flashed. It was extinguished using a hand held extinguisher. There were no injuries and no cleanup actions needed.

15) On April 19, 2010, a relief valve in the JP-8 Desulferizer lifted causing a small fire at the North Plant Flare. There were no injuries and no cleanup actions needed.

16) On May 31, 2010, there was a fire in the Vacuum Unit at exchanger X-2110. The bell head leaked Vacuum Gas Oil and flashed. The fire was extinguished using a hand held extinguisher. There were no injuries and no cleanup actions needed.

17) On June 4, 2010, two roll-off bins holding filters containing iron sulfide caught fire. The Navajo Fire Team extinguished the fires using water and dry chemicals. The tarps on the bins were damaged by the fires.There were no injuries and no cleanup actions needed.

18) On June 6, 2010, a roll-off bin holding filters containing iron sulfide caught fire. The Navajo Fire Team extinguished the fires using water and dry chemicals. The tarps on the bins were damaged by the fires. There were no injuries and no cleanup actions needed.

19) On June 11, 2010, A High Pressure Flush Pump in the ROSE #2 Unit blew a seal and leaked Light Cycle Oil (LCO) which caught on fire. It was extinguished using a hand held extinguisher. There were no injuries and no cleanup actions needed.

20) On August 9, 2010, the top manway on D-8801 in the #1 Hydrogen Unit caught fire due to a leaking gasket. It was extinguished using a hand held extinguisher. There were no injuries and no cleanup actions needed.

21) On September 23, 2010, Y-4 Cooling Tower caught on fire while it was being demolished. Slag from a cutting torch fell onto the dry wood and ignited it. There were no damages except to the cooling tower. It was extinguished using a near by monitor. There were no injuries and no cleanup actions needed.

22) On October 3, 2010, a fire was discovered in H-102. The fire was due to a ruptured tube that leaked naptha. The fire was extinguished by Navajo's Fire Team using foam. There were no injuries and no cleanup actions needed.

23) On December 10, 2010, the insulation on Tk-410 began smoldering while cutting bolts with a cutting torch. It was extinguished using a hand held extinguisher. There were no injuries and no cleanup actions needed. The only damage was to the tank insulation.

24) On December 14, 2010, the insulation on piping going to Tk-814 ignited. It was extinguished using a hand held extinguisher. There were no injuries and no cleanup actions needed. The only damage was to the insulation.

SUMMARY OF NEW GROUNDWATER CONTAMINATION

In 2010, Navajo found only one area that has new groundwater contamination. In October, while gauging monitor wells, it was discovered that MW-94 had thirteen feet of product in it. This well had previously been clean. The well is located in the northwest portion of the refinery near Recovery Trench RW-8. We collected a sample of the product in the well and had our lab run tests to determine what the product was. It was determined that it was Jet Fuel. We then singled out the line in the area that carries Jet Fuel and ran a hydrotest on the line. It was found to be leaking and we dug it up and repaired it.

We installed a pumping system into MW-94 and began recovering product out of the well. That effort is still ongoing. Table 6 summarizes the production of hydrocarbons from our recovery trenches and monitor wells.

SUMMARY OF EPA/NMED RCRA ACTIVITY

As OCD is aware, Navajo is in the process of investigating numerous areas of the refinery and outlying areas as part our Post-Closure Permit with NMED. During 2010, we performed several investigations and submitted several reports. Those are as follows:

Evaporation Ponds Workplan

16) On December 3, 2010, a leak in our Effluent Line was discovered between the Chukka and Mewbourne Injection Wells. The line was blocked in and repaired. Volume of the release is unknown and no liquids were recovered. The C-141 for this release along with sampling data and photos is included in Appendix 1.

In 2010, Navajo had twenty three (23) fires that were reported to OCD. All C-141's for these incidents are included in Appendix 1. They are as follows:

1) On January 10, 2010, there was a fire at the API lift station in the Waste Water Treater. The fire was extinguished with dry chemical. There were no injuries and no cleanup actions needed.

2) 2) On January 11, 2010, we had a fire on the outside insulation of Tk-1227. The fire was extinguished by a near-by fire monitor. There were no injuries and no cleanup actions needed.

3) On January 13, 2010, we had another fire in the insulation of Tk-1227. The fire was extinguished by a near-by fire monitor. There were no injuries and no cleanup actions needed.

4) On January 14, 2010, we had another fire on the outside of Tk-1227. The fire was extinguished by a near-by fire monitor. There were no injuries and no cleanup actions needed.

5) On January 14, 2010, there was a flash fire in the North Plant Utilities. Pipefitters were cutting a cooling water return line when it flashed out the end of the pipe. There were no injuries and no cleanup actions needed.

6) On January 17, 2010 there was a fire at pump P-178. The pump seal failed and allowed crude oil to spill out and catch fire. The fire was extinguished by the refinery fire team. There were no injuries but the pump and some overhead electrical wiring were damaged.

7) On January 20, 2010, carry over from the South Plant Flare caught Tk-110 and Tk-438 on fire. Navajo's Fire Team extinguished the fires. No one was injured and the tanks weren't damaged.

8) On January 20, 2010, we had another fire in the insulation of Tk-1227. The fire was extinguished by a near-by fire monitor. There were no injuries and no cleanup actions needed.

9) On January 22, 2010, there was a flange fire off of the W-58 tower in the Sats Gas Unit. The fire was caused by sparks from welding. The fire was extinguished with a hand held extinguisher. There were no injuries and no cleanup actions needed.

After numerous Investigations in the area of the Evaporation Ponds, NMED identified data gaps based on the current site conditions. The following gaps were identified:

It is not clear whether the Pecos River is a gaining or losing stream near the EPs and whether the shallow saturated zone beneath the EPs is in communication with the surface water in the river.

- The concentration of constituents of concern (COCs) in the deeper groundwater has not been measured since 1995; thus, it is not known if the underlying aquifer remains unimpacted.

- DRO concentrations exceed the most conservative NMED screening level for potable groundwater in the downgradient direction, yet the volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs) do not exceed their respective screening levels (including drinking water standards) in those same wells. It is not clear whether the concentrations reported for DRO include biogenic material in addition to petroleum hydrocarbons emanating from the EPs or whether the correct screening level is being used to evaluate the DRO concentrations.

- It is unclear if arsenic concentrations in groundwater are associated with colloidal matter or are actually representative of dissolved arsenic.

The proposed scope of services described in this Work Plan was focused on filling these data gaps.

This workplan was submitted to NMED in February, 2010.

Area of Concern (AOC) Group 3 Corrective Action Investigation Work Plan

AOC Group 3 includes 5 SWMUs, as described below.

Clarified Slurry Oil Tanks (SWMU 17 / Group 3 AOC1)

The clarified slurry oil tanks are located in the northwestern portion of the refinery and include tanks 18, 58, 59, 61, 63, 65 and 75. These tanks are actively in use. However, the slurry slinger located in the building adjacent to Tank 63 is no longer in use. An underground storage tank (UST) is located south of the slurry slinger building and is out of service. The UST was formerly used to contain slurry slinger oil. The contents of the tank were removed when the tank was removed from service. There are currently no plans to remove the UST.

North Bundle Cleaning Pad (SWMU 20 / Group 3 AOC2)

The north bundle cleaning pad is located in the northern portion of the refinery and includes the concrete pad where heat exchanger bundles are inspected, cleaned and repaired. The concrete pad is sloped to a collection sump, which is drained into the plant wastewater treatment system. This pad is actively in use.

The north bundle cleaning pad is located east of the former north API separator area. South of the north bundle cleaning pad is the former diesel tank storage area, which is now occupied by a Fluid Catalytic Cracker (FCC) unit. Both of these areas were investigated during the initial and additional corrective action investigations of SWMU / AOC Group 1.

South Bundle Cleaning Pad (SWMU 21 / Group 3 AOC3)

The south bundle cleaning pad is located in the southern portion of the refinery, just west of the southeast tank farm area, and includes the concrete pad where heat exchanger bundles are inspected, cleaned and repaired. The concrete pad is sloped to a collection sump, which is drained into the plant wastewater treatment system. This pad is actively in use.

The southeast tank farm is located east of the south bundle cleaning pad and was investigated during the initial and additional corrective action investigations of SWMU / AOC Group 1.

The south API separator is located south of the south bundle cleaning pad. This area was investigated during the corrective action investigation of AOC Group 2.

Main API Separator (SWMU 22 / Group 3 AOC4)

The main API separator is located in the northern portion of the refinery, just west of tanks 801 and 836. The primary structure is an in-ground concrete separator that is approximately 10 feet wide by 20 feet long.

The current API separator was built above ground and is located southwest of the main API separator. After the current API separator was installed and placed in service, the main API separator was drained and all accumulated wastes were removed and disposed of off-site as hazardous waste. The separator was then pressure washed and sand-blasted to remove all remaining waste material. The cleaning was considered complete when all stains had been removed from the concrete.

Currently, the concrete separator is used to settle catalyst fines. Water and catalyst are placed into the separator. The catalyst is allowed to settle to the bottom of the separator

while water passes through the overflow and into the wastewater treatment system. The settled catalyst is periodically removed and either reused or disposed of properly.

South Alkylation Unit (SWMU 23 / Group 3 AOC5)

The south alkylation unit is located in the southern portion of the refinery. This unit was removed from service in the early 1980s, but most of the equipment remains in place. The unit is inoperable and is surrounded by other active process units and aboveground piping. Because of the surrounding active units and aboveground piping, there are no plans to further demolish this unit.

Planned Activities

The following activities are planned in order to investigate each of the 5 SWMUs in Group 3:

- Collect soil and groundwater samples to evaluate potential impacts from each SWMU; and

- Compare data collected as part of this investigation to data collected from nearby SWMUs or AOCs during previous investigations to evaluate remediation goals.

This workplan was submitted to NMED in August 2010.

2010 Facility Wide Groundwater Monitoring Workplan – Revised

In 2010, we revised the Facility-wide Ground Water Monitoring Workplan. Navajo had proposed revisions to the plan in January 2010. Proposed revisions included reduction of sampling frequency as well as a reduction in the analytical suite, while maintaining an appropriate level of monitoring to assess the fate and transport of impacted groundwater.

NMED and OCD reviewed the proposed revisions submitted in January 2010 and provided comments in a letter dated August 23, 2010. A conference call was conducted on September 15, 2010 to resolve conflicts between the proposed revised monitoring schedule submitted by Navajo and the requested monitoring schedule included in the August 23, 2010 letter.

During the September 15, 2010 conference call, NMED and OCD stated that cyanide, mercury, nickel and vanadium were requested in order to monitor for releases that might

not otherwise be identified. Navajo and ARCADIS proposed to add these parameters to the analytical suite for select sentinel wells downgradient and crossgradient of the Refinery and at select wells within the Refinery, but not to add them to all samples. A list of 22 proposed wells was submitted to NMED and OCD on September 16, 2010 via email. On September 17, 2010, NMED responded with agreement for the list of 22 wells to be analyzed for these four constituents and requested that 4 additional wells be included.

Class 3 Permit Modification

In December, 2010, the modification to our post closure permit was finalized by NMED. This modification was in response to Tk 815 being built on the North Colony Landfarm. The modification basically lays out the requirements of monitoring the tank, inspecting the tank, inspecting the landfarm and soil sampling in the area.

SUMMARY AND RECOMMENDATIONS

In 2010, Navajo took a proactive approach to our effluent leaks and started the process of laying a new fiberglas pipeline to remove that problem. As this report is being written, that pipeline is now in service.

We continue to make progress on delineating and defining any contamination associated with our Solid Waste Management Units (SWMU's) and executing plans to remediate and close those units. We are working diligently with NMED to be able to close the Evaporation Ponds in the very near future.

We have started the engineering phase of a revamped and automated recovery system. This system will incorporate new pumps, new lines, and automation to make our remediation efforts in areas of PSH, much more efficient and effective.

Recommendations for this plant are after the fact, so to speak. Obviously, one recommendation would have been to stop the leaks on the effluent pipeline. Those leaks had become not only an embarrassment to our company but could have potentially shut the refinery down. Installing the new effluent pipeline alleviates those concerns.

The second obvious recommendation is upgrading our groundwater remediation system. That system had not been upgraded in almost 20 years. Parts are old and hard to get when maintenance is needed. Areas with PSH have only monitor wells and those do not lend themselves to recovery. The new system will have recovery wells in those areas, new pumps, new lines, lines that take the fluids all the way to the waste water area through the refinery's pipe racks and automation.

APPENDIX 1

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Plant	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude 32.847169 **Longitude** -104.391115

NATURE OF RELEASE

Type of Release: Waster Water	Volume of Release: ~1300 to 1400 barrels	Volume Recovered: ~ 1360 barrels mixed with snow melt/rain water
Source of Release: T-836 ABT (Aggressive Bio-Treatment) Waste Water Tank.	Date and Hour of Occurrence: 1/10/10 ~ 06:35	Date and Hour of Discovery: 1/10/10 ~ 06:35
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left voicemail with OCD District Supervisor (575-748-1283 extension 104). Randy Dade returned the call at ~07:06.	
By Whom? Aaron Strange	Date and Hour: 1/10/10 ~ 07:01	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 1/10/10 at ~ 06:35 the T-836 ABT (Aggressive Bio-Treatment) Waste Water Tank overflowed onto the ground. The level indicator froze giving operation a false reading. Approximately 1360 barrels of Waste Water mixed with snow melt/rain water was recovered with vacuum trucks. The tank had been sparged and the benzene level was zero.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the north side of T-836 ABT (Aggressive Bio-Treatment) Waste Water Tank, where waste water overflowed onto the ground. The ground was already wet and covered with puddles of snow melt/rain water. Approximately 1360 barrels of Waste Water mixed with snow melt/rain water was recovered with vacuum trucks. We will be monitoring the area for signs of stained soil as the ground dries out and will collect soil samples. Navajo will dispose any contaminated soil per analytical results.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 1/15/10 Phone: 575-703-5057		

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Plant	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude 32.847169 **Longitude** -104.391115

NATURE OF RELEASE

Type of Release: Waster Water	Volume of Release: ~1300 to 1400 barrels	Volume Recovered: ~ 1360 barrels mixed with snow melt/rain water
Source of Release: T-836 ABT (Aggressive Bio-Treatment) Waste Water Tank.	Date and Hour of Occurrence: 1/10/10 ~ 06:35	Date and Hour of Discovery: 1/10/10 ~ 06:35
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left voicemail with OCD District Supervisor (575-748-1283 extension 104). Randy Dade returned the call at ~07:06.	
By Whom? Aaron Strange	Date and Hour: 1/10/10 ~ 07:01	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 1/10/10 at ~ 06:35 the T-836 ABT (Aggressive Bio-Treatment) Waste Water Tank overflowed onto the ground. The level indicator froze giving operation a false reading. Approximately 1360 barrels of Waste Water mixed with snow melt/rain water was recovered with vacuum trucks. The tank had been sparged and the benzene level was zero.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the north side of T-836 ABT (Aggressive Bio-Treatment) Waste Water Tank, where waste water overflowed onto the ground. The ground was already wet and covered with puddles of snow melt/rain water. Approximately 1360 barrels of Waste Water mixed with snow melt/rain water was recovered with vacuum trucks. We will be monitoring the area for signs of stained soil as the ground dries out and will collect soil samples. Navajo will dispose any contaminated soil per analytical results.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 1/15/10 Phone: 575-703-5057		

ALS Laboratory Group

Date: *17-Feb-10*

Client: Navajo Refining Company
Project: Disposal
Sample ID: T-836 Soil (Sewer Overflow)
Collection Date: 2/2/2010 10:10 AM

Work Order: 1002100
Lab ID: 1002100-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY			**SW7470**		Prep Date: **2/11/2010**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	2/11/2010 03:47 PM
TCLP METALS			**SW1311/6020**		Prep Date: **2/5/2010**	Analyst: **ALR**
Arsenic	ND		0.0500	mg/L	10	2/5/2010 07:27 PM
Barium	**0.405**		**0.0500**	**mg/L**	10	2/5/2010 07:27 PM
Cadmium	ND		0.0500	mg/L	10	2/5/2010 07:27 PM
Chromium	ND		0.0500	mg/L	10	2/5/2010 07:27 PM
Lead	ND		0.0500	mg/L	10	2/5/2010 07:27 PM
Selenium	ND		0.0500	mg/L	10	2/5/2010 07:27 PM
Silver	ND		0.0500	mg/L	10	2/5/2010 07:27 PM
TCLP SEMIVOLATILES			**SW1311/8270**		Prep Date: **2/8/2010**	Analyst: **ACN**
2,4,5-Trichlorophenol	ND		5.0	µg/L	1	2/8/2010 03:21 PM
2,4,6-Trichlorophenol	ND		5.0	µg/L	1	2/8/2010 03:21 PM
2,4-Dinitrotoluene	ND		5.0	µg/L	1	2/8/2010 03:21 PM
Cresols, Total	ND		15	µg/L	1	2/8/2010 03:21 PM
Hexachlorobenzene	ND		5.0	µg/L	1	2/8/2010 03:21 PM
Hexachlorobutadiene	ND		5.0	µg/L	1	2/8/2010 03:21 PM
Hexachloroethane	ND		5.0	µg/L	1	2/8/2010 03:21 PM
Nitrobenzene	ND		5.0	µg/L	1	2/8/2010 03:21 PM
Pentachlorophenol	ND		5.0	µg/L	1	2/8/2010 03:21 PM
Pyridine	ND		5.0	µg/L	1	2/8/2010 03:21 PM
Surr: 2,4,6-Tribromophenol	*77.4*		*42-124*	*%REC*	1	2/8/2010 03:21 PM
Surr: 2-Fluorobiphenyl	*69.3*		*48-120*	*%REC*	1	2/8/2010 03:21 PM
Surr: 2-Fluorophenol	*69.8*		*20-120*	*%REC*	1	2/8/2010 03:21 PM
Surr: 4-Terphenyl-d14	*68.7*		*51-135*	*%REC*	1	2/8/2010 03:21 PM
Surr: Nitrobenzene-d5	*70.3*		*41-120*	*%REC*	1	2/8/2010 03:21 PM
Surr: Phenol-d6	*72.3*		*20-120*	*%REC*	1	2/8/2010 03:21 PM
TCLP VOLATILES			**SW1311/8260B**		Prep Date: **2/3/2010**	Analyst: **PC**
1,1-Dichloroethene	ND		100	µg/L	20	2/8/2010 06:55 PM
1,2-Dichloroethane	ND		100	µg/L	20	2/8/2010 06:55 PM
1,4-Dichlorobenzene	ND		100	µg/L	20	2/8/2010 06:55 PM
2-Butanone	ND		200	µg/L	20	2/8/2010 06:55 PM
Benzene	ND		100	µg/L	20	2/8/2010 06:55 PM
Carbon tetrachloride	ND		100	µg/L	20	2/8/2010 06:55 PM
Chlorobenzene	ND		100	µg/L	20	2/8/2010 06:55 PM
Chloroform	ND		100	µg/L	20	2/8/2010 06:55 PM
Tetrachloroethene	ND		100	µg/L	20	2/8/2010 06:55 PM
Trichloroethene	ND		100	µg/L	20	2/8/2010 06:55 PM

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

Client: Navajo Refining Company
Project: Disposal **Work Order:** 1002100
Sample ID: T-836 Soil (Sewer Overflow) **Lab ID:** 1002100-01
Collection Date: 2/2/2010 10:10 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Vinyl chloride	ND		100	µg/L	20	2/8/2010 06:55 PM
Surr: 1,2-Dichloroethane-d4	*107*		*70-125*	*%REC*	20	2/8/2010 06:55 PM
Surr: 4-Bromofluorobenzene	*101*		*72-125*	*%REC*	20	2/8/2010 06:55 PM
Surr: Dibromofluoromethane	*106*		*71-125*	*%REC*	20	2/8/2010 06:55 PM
Surr: Toluene-d8	*100*		*75-125*	*%REC*	20	2/8/2010 06:55 PM
REACTIVE CYANIDE			**SW-846**			Analyst: **HN**
Reactive Cyanide	ND		40.0	mg/Kg	1	2/3/2010 10:00 AM
REACTIVE SULFIDE			**SW-846**			Analyst: **HN**
Reactive Sulfide	ND		40.0	mg/Kg	1	2/3/2010 10:00 AM
IGNITABILITY			**SW1030**			Analyst: **JLC**
Ignitability, Solid	**Negative**			**no unit**	1	2/3/2010 03:30 PM
PH			**SW9045B**			Analyst: **JLC**
pH	**8.96**		**0.100**	**pH Units**	1	2/3/2010 10:00 AM

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

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

Chain of Custody Form

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 #: 1003200

Customer Information		Project Information		Parameter/Method Request for Analysis
Purchase Order		Project Name	Disposal	A TCLP VOAS
Work Order		Project Number		B TCLP semiVOAS
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C TCLP Metals
Send Report To	Aaron Strange	Invoice Attn	Aaron Strange	D RCI
Address	P.O. Box 159	Address	P.O. Box 159	E
				F
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G
Phone	575 (575) 748-3311	Phone	575 (575) 748-3311	H
Fax	575 (575) 746-5421	Fax	575 (575) 746-5421	I
e-Mail Address	[redacted]	e-Mail Address		J

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	T-836 Soil (Sewer overflow)	2-2-2010	10:10	S	Y	1	X	X	X	X							
2	T-439 Blast Dust	↓	14:16	S	↓	1	X	X	X	X							
3	Control Room Purafill Media		14:39	S		1	X	X	X	X							
4	Line Testing Soil North of Diesel Boosters	↓	15:00	S	↓	1	X	X	X	X							
5	Temp. Blank																
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Aaron Strange

Shipment Method: Fed Ex

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

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Notes:
[signature]	2-2-10	16:15		5 Week Days TAT
Relinquished by:	Date:	Time:	Received by (Laboratory): [signature]	2/3/10 08:55

Cooler ID	Cooler Temp

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

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

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

ALS Laboratory Group

Date: *18-Aug-10*

Client: Navajo Refining Company
Project: T-836 Overflow 1-10-10 **Work Order:** 1008491
Sample ID: BH #1 **Lab ID:** 1008491-01
Collection Date: 8/13/2010 02:58 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **8/16/2010**	Analyst: **SE**
nC6 to nC12	ND		50	mg/Kg	1	8/17/2010 02:24 PM
>nC12 to nC28	**570**		**50**	**mg/Kg**	1	8/17/2010 02:24 PM
>nC28 to nC35	**280**		**50**	**mg/Kg**	1	8/17/2010 02:24 PM
Total Petroleum Hydrocarbon	**850**		**50**	**mg/Kg**	1	8/17/2010 02:24 PM
Surr: 2-Fluorobiphenyl	*129*		*70-130*	*%REC*	1	8/17/2010 02:24 PM
Surr: Trifluoromethyl benzene	*123*		*70-130*	*%REC*	1	8/17/2010 02:24 PM

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

ALS Laboratory Group

Date: *18-Aug-10*

Client: Navajo Refining Company
Project: T-836 Overflow 1-10-10 **Work Order:** 1008491
Sample ID: BH #2 **Lab ID:** 1008491-02
Collection Date: 8/13/2010 03:02 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **8/16/2010**	Analyst: **SE**
nC6 to nC12	ND		49	mg/Kg	1	8/17/2010 02:57 PM
>nC12 to nC28	**950**		**49**	**mg/Kg**	1	8/17/2010 02:57 PM
>nC28 to nC35	**610**		**49**	**mg/Kg**	1	8/17/2010 02:57 PM
Total Petroleum Hydrocarbon	**1,560**		**49**	**mg/Kg**	1	8/17/2010 02:57 PM
Surr: 2-Fluorobiphenyl	*120*		*70-130*	*%REC*	1	8/17/2010 02:57 PM
Surr: Trifluoromethyl benzene	*129*		*70-130*	*%REC*	1	8/17/2010 02:57 PM

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

ALS Laboratory Group

Date: *18-Aug-10*

Client: Navajo Refining Company
Project: T-836 Overflow 1-10-10 **Work Order:** 1008491
Sample ID: BH #3 **Lab ID:** 1008491-03
Collection Date: 8/13/2010 03:11 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **8/16/2010**	Analyst: **SE**
nC6 to nC12	ND		50	mg/Kg	1	8/17/2010 03:29 PM
>nC12 to nC28	**300**		**50**	**mg/Kg**	1	8/17/2010 03:29 PM
>nC28 to nC35	**350**		**50**	**mg/Kg**	1	8/17/2010 03:29 PM
Total Petroleum Hydrocarbon	**650**		**50**	**mg/Kg**	1	8/17/2010 03:29 PM
Surr: 2-Fluorobiphenyl	*122*		*70-130*	*%REC*	1	8/17/2010 03:29 PM
Surr: Trifluoromethyl benzene	*130*		*70-130*	*%REC*	1	8/17/2010 03:29 PM

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

ALS Laboratory Group

Date: *18-Aug-10*

Client: Navajo Refining Company
Project: T-836 Overflow 1-10-10 **Work Order:** 1008491
Sample ID: BH #4 **Lab ID:** 1008491-04
Collection Date: 8/13/2010 03:16 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **8/16/2010**	Analyst: **SE**
nC6 to nC12	ND		49	mg/Kg	1	8/17/2010 08:30 AM
>nC12 to nC28	ND		49	mg/Kg	1	8/17/2010 08:30 AM
>nC28 to nC35	ND		49	mg/Kg	1	8/17/2010 08:30 AM
Total Petroleum Hydrocarbon	ND		49	mg/Kg	1	8/17/2010 08:30 AM
Surr: 2-Fluorobiphenyl	*124*		*70-130*	*%REC*	1	8/17/2010 08:30 AM
Surr: Trifluoromethyl benzene	*127*		*70-130*	*%REC*	1	8/17/2010 08:30 AM

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

ALS Laboratory Group

Date: *18-Aug-10*

Client: Navajo Refining Company
Project: T-836 Overflow 1-10-10 **Work Order:** 1008491
Sample ID: BH #5 **Lab ID:** 1008491-05
Collection Date: 8/13/2010 03:22 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **8/16/2010**	Analyst: **SE**
nC6 to nC12	ND		50	mg/Kg	1	8/17/2010 10:38 AM
>nC12 to nC28	ND		50	mg/Kg	1	8/17/2010 10:38 AM
>nC28 to nC35	ND		50	mg/Kg	1	8/17/2010 10:38 AM
Total Petroleum Hydrocarbon	**ND**		**50**	**mg/Kg**	1	8/17/2010 10:38 AM
Surr: 2-Fluorobiphenyl	*118*		*70-130*	*%REC*	1	8/17/2010 10:38 AM
Surr: Trifluoromethyl benzene	*124*		*70-130*	*%REC*	1	8/17/2010 10:38 AM

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

ALS Laboratory Group

Date: *18-Aug-10*

Client: Navajo Refining Company
Project: T-836 Overflow 1-10-10 **Work Order:** 1008491
Sample ID: BH #6 **Lab ID:** 1008491-06
Collection Date: 8/13/2010 03:28 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **8/16/2010**	Analyst: **SE**
nC6 to nC12	ND		49	mg/Kg	1	8/17/2010 11:42 AM
>nC12 to nC28	ND		49	mg/Kg	1	8/17/2010 11:42 AM
>nC28 to nC35	ND		49	mg/Kg	1	8/17/2010 11:42 AM
Total Petroleum Hydrocarbon	ND		49	mg/Kg	1	8/17/2010 11:42 AM
Surr: 2-Fluorobiphenyl	*119*		*70-130*	*%REC*	1	8/17/2010 11:42 AM
Surr: Trifluoromethyl benzene	*129*		*70-130*	*%REC*	1	8/17/2010 11:42 AM

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

ALS Laboratory Group

Date: *18-Aug-10*

Client: Navajo Refining Company
Project: T-836 Overflow 1-10-10 **Work Order:** 1008491
Sample ID: BH #7 **Lab ID:** 1008491-07
Collection Date: 8/13/2010 03:32 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **8/16/2010**	Analyst: **SE**
nC6 to nC12	ND		49	mg/Kg	1	8/17/2010 12:14 PM
>nC12 to nC28	ND		49	mg/Kg	1	8/17/2010 12:14 PM
>nC28 to nC35	**63**		**49**	**mg/Kg**	1	8/17/2010 12:14 PM
Total Petroleum Hydrocarbon	**63.0**		**49**	**mg/Kg**	1	8/17/2010 12:14 PM
Surr: 2-Fluorobiphenyl	*121*		*70-130*	*%REC*	1	8/17/2010 12:14 PM
Surr: Trifluoromethyl benzene	*121*		*70-130*	*%REC*	1	8/17/2010 12:14 PM

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

ALS Laboratory Group
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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 #: 1085491

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	T-836 Over-flow 1-10-10	A	TPH
Work Order		Project Number		B	
Company Name	Navajo Refining Co	Bill To Company		C	
Send Report To	Aaron Strange	Invoice Attn		D	
Address	PO Box 159	Address		E	
				F	
City/State/Zip	Artesia NM 88211	City/State/Zip		G	
Phone	575-748-3311	Phone		H	
Fax	575-746-5451	Fax		I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	BH #1	8-13-10	1458	S	NO	1	X										
2	BH #2		1502	S		1	X										
3	BH #3		1511	S		1	X										
4	BH #4		1516	S		1	X										
5	BH #5		1522	S		1	X										
6	BH #6		1528	S		1	X										
7	BH #7		1532	S		1	X										
8	Temp Blank																
9																	
10																	

Sampler(s) Please Print & Sign: Aaron Strange

Shipment Method: FedEx

Required Turnaround Time: (Check Box) ☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☐ Other ASAP

Results Due Date:

Relinquished by: Aaron Strange Date: 8-13-10 Time: 1615

Relinquished by: Date: 8/14/10 Time: 0245

Logged by (Laboratory): Date: Time:

Received by: Received by (Laboratory): R.N Checked by (Laboratory):

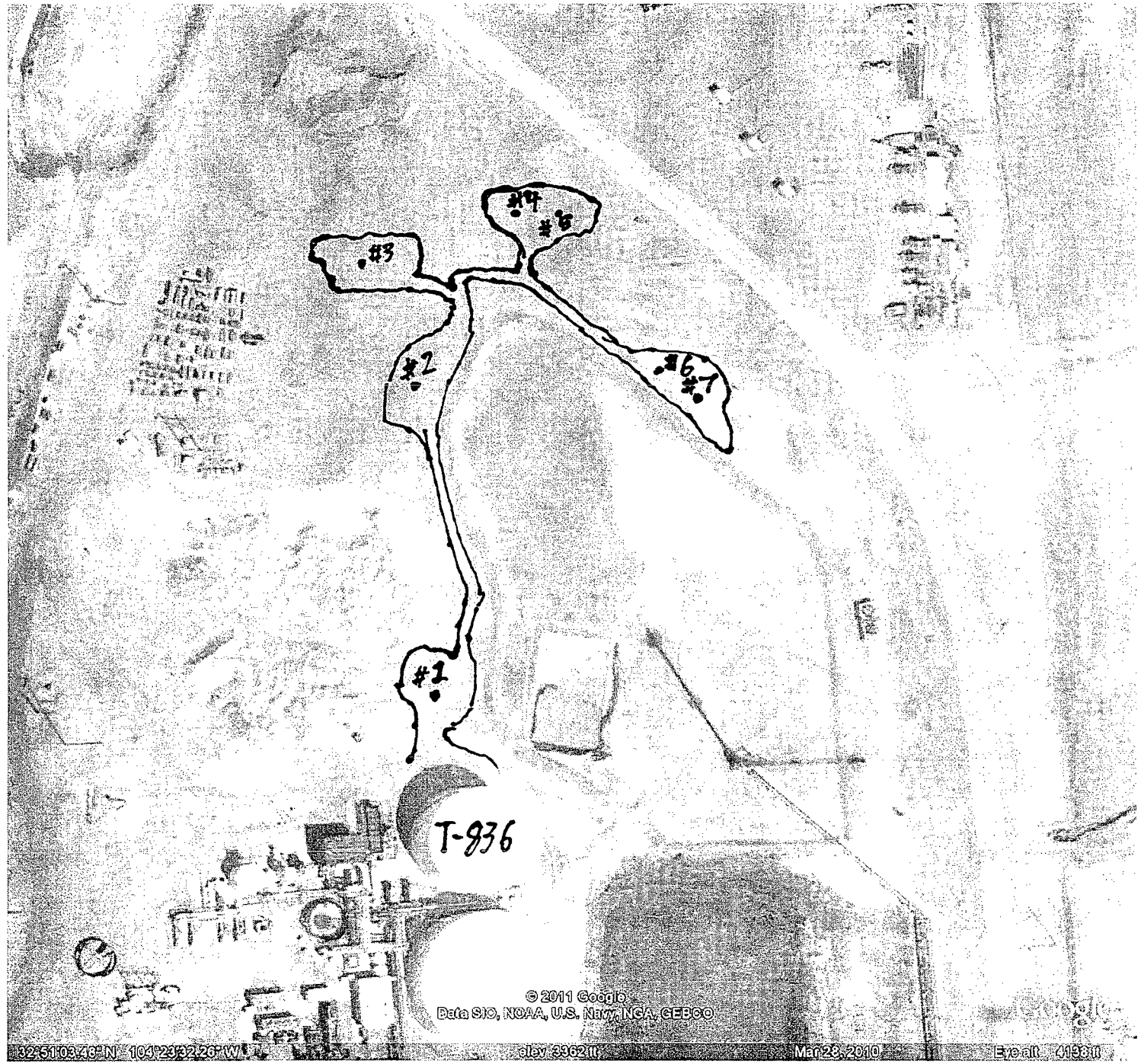
Notes:

Cooler ID	Cooler Temp

QC Package: (Check One Box Below)
☐ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Date ☐ 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.
3. The Chain of Custody is a legal document. All information must be completed accurately.


#4
#5
#3
#2
#6
#7
#1
T-936
© 2011 Google
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
32°51'03.48" N 104°23'32.26" W elev 3962 ft Mar 28, 2010 Eye alt 4138 ft

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NMD048918817	1	505-748-3311	003209729 FLE

GENERATOR

5. Generator's Name and Mailing Address

Navajo Refining Company
501 E. Main
Artesia, NM 88211-0159
Generator's Phone: 505-748-3311 Darrell Moore

Generator's Site Address (if different than mailing address)

Navajo Refining Company
501 E. Main
Artesia, NM 88211

6. Transporter 1 Company Name — U.S. EPA ID Number

Fluid Transports, Inc. — TXD988057931

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number

RINECO
1007 Vulcan Road
Benton, AR 72015
Facility's Phone: 501-778-6325

ARD981057870

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, NA3077, Hazardous Waste Solid, NOS (F037), 9, PG III	001	CM	34,620	P	F037		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information

1. 0910-10555 ERG#171 F037 Tank Sludge

Load #175527

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Darrell Moore — Signature: Darrell Moore — Month: 10 — Day: 25 — Year: 10

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Jimmy Allen — Signature: [signature] — Month: 10 — Day: 25 — Year: 10

Transporter 2 Printed/Typed Name: — Signature: — Month: — Day: — Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H061			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Carrie Coffman — Signature: [signature] — Month: 11 — Day: 17 — Year: 10

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Plant	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Waster Water	Volume of Release: ~10 barrels	Volume Recovered: ~8 barrels
Source of Release: Sewer at T-836 ABT (Aggressive Bio-Treatment) Waste Water Tank.	Date and Hour of Occurrence: 2/01/10 ~ 03:10	Date and Hour of Discovery: 2/01/10 ~ 03:10
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? NA	
By Whom? NA	Date and Hour: NA	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 2/01/10 at ~ 03:10 the sewer at T-836 ABT (Aggressive Bio-Treatment) Waste Water Tank overflowed onto the ground. Operators were skimming T-836 to the sewer and left to check other equipment. The sewer overflowed ~10 barrels of waste water from T-836. The tank had been sparged and the benzene level was zero. Operators have been instructed to stay with the valve while skimming the tank.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the South side of T-836 ABT (Aggressive Bio-Treatment) Waste Water Tank, and across the dirt road to the East of the tank where the waste water flowed and formed a puddle the ground. Approximately 8 barrels of Waste Water was recovered with a vacuum truck. We have collected a soil sample and will be monitoring the area for signs of stained soil as the ground dries out. Navajo will dispose any contaminated soil per analytical results.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 2/16/10 Phone: 575-703-5057		

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Plant	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Waster Water	Volume of Release: ~10 barrels	Volume Recovered: ~8 barrels
Source of Release: Sewer at T-836 ABT (Aggressive Bio-Treatment) Waste Water Tank.	Date and Hour of Occurrence: 2/01/10 ~ 03:10	Date and Hour of Discovery: 2/01/10 ~ 03:10
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? NA	
By Whom? NA	Date and Hour: NA	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 2/01/10 at ~ 03:10 the sewer at T-836 ABT (Aggressive Bio-Treatment) Waste Water Tank overflowed onto the ground. Operators were skimming T-836 to the sewer and left to check other equipment. The sewer overflowed ~10 barrels of waste water from T-836. The tank had been sparged and the benzene level was zero. Operators have been instructed to stay with the valve while skimming the tank.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the South side of T-836 ABT (Aggressive Bio-Treatment) Waste Water Tank, and across the dirt road to the East of the tank where the waste water flowed and formed a puddle the ground. Approximately 8 barrels of Waste Water was recovered with a vacuum truck. We have collected a soil sample and will be monitoring the area for signs of stained soil as the ground dries out. Navajo will dispose any contaminated soil per analytical results.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 2/16/10 Phone: 575-703-5057		

18-Aug-2010

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

Tel: (575) 748-6733
Fax: (575) 746-5421

Re: T-836 Overflow 2-1-10 Work Order: **1008492**

Dear Aaron,

ALS Laboratory Group received 3 samples on 14-Aug-2010 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 11.

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: T104704231-09A-TX

ALS Laboratory Group

Date: 18-Aug-10

Client: Navajo Refining Company
Project: T-836 Overflow 2-1-10
Work Order: **1008492**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1008492-01	BH #1	Soil		8/13/2010 14:14	8/14/2010 08:45	☐
1008492-02	BH #2	Soil		8/13/2010 14:20	8/14/2010 08:45	☐
1008492-03	BH #3	Soil		8/13/2010 14:27	8/14/2010 08:45	☐

ALS Laboratory Group

Date: *18-Aug-10*

Client: Navajo Refining Company
Project: T-836 Overflow 2-1-10
Sample ID: BH #1
Collection Date: 8/13/2010 02:14 PM

Work Order: 1008492
Lab ID: 1008492-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **8/16/2010**	Analyst: **SE**
nC6 to nC12	ND		50	mg/Kg	1	8/17/2010 12:46 PM
>nC12 to nC28	ND		50	mg/Kg	1	8/17/2010 12:46 PM
>nC28 to nC35	ND		50	mg/Kg	1	8/17/2010 12:46 PM
Total Petroleum Hydrocarbon	ND		50	mg/Kg	1	8/17/2010 12:46 PM
Surr: 2-Fluorobiphenyl	*125*		*70-130*	*%REC*	1	8/17/2010 12:46 PM
Surr: Trifluoromethyl benzene	*129*		*70-130*	*%REC*	1	8/17/2010 12:46 PM

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

ALS Laboratory Group

Date: *18-Aug-10*

Client: Navajo Refining Company
Project: T-836 Overflow 2-1-10 **Work Order:** 1008492
Sample ID: BH #2 **Lab ID:** 1008492-02
Collection Date: 8/13/2010 02:20 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **8/16/2010**	Analyst: **SE**
nC6 to nC12	ND		50	mg/Kg	1	8/17/2010 01:51 PM
>nC12 to nC28	**160**		**50**	**mg/Kg**	1	8/17/2010 01:51 PM
>nC28 to nC35	**71**		**50**	**mg/Kg**	1	8/17/2010 01:51 PM
Total Petroleum Hydrocarbon	**231**		**50**	**mg/Kg**	1	8/17/2010 01:51 PM
Surr: 2-Fluorobiphenyl	*118*		*70-130*	*%REC*	1	8/17/2010 01:51 PM
Surr: Trifluoromethyl benzene	*118*		*70-130*	*%REC*	1	8/17/2010 01:51 PM

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

ALS Laboratory Group

Date: *18-Aug-10*

Client: Navajo Refining Company
Project: T-836 Overflow 2-1-10 **Work Order:** 1008492
Sample ID: BH #3 **Lab ID:** 1008492-03
Collection Date: 8/13/2010 02:27 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **8/16/2010**	Analyst: **SE**
nC6 to nC12	ND		49	mg/Kg	1	8/17/2010 01:19 PM
>nC12 to nC28	**190**		**49**	**mg/Kg**	1	8/17/2010 01:19 PM
>nC28 to nC35	**140**		**49**	**mg/Kg**	1	8/17/2010 01:19 PM
Total Petroleum Hydrocarbon	**330**		**49**	**mg/Kg**	1	8/17/2010 01:19 PM
Surr: 2-Fluorobiphenyl	*116*		*70-130*	*%REC*	1	8/17/2010 01:19 PM
Surr: Trifluoromethyl benzene	*125*		*70-130*	*%REC*	1	8/17/2010 01:19 PM

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

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

Chain of Custody Form

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 #: 1005492

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	T-836 Overflow 7-1-10	A	TPH
Work Order		Project Number		B	
Company Name	Navajo Refining Co.	Bill To Company		C	
Send Report To	Aaron Strange	Invoice Attn		D	
Address	PO Box 159	Address		E	
				F	
City/State/Zip	Artesia NM 88210	City/State/Zip		G	
Phone	575-748-3311	Phone		H	
Fax	575-746-5451	Fax		I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	BH#1	8-13-10	1414	S	NO	1	X										
2	BH#2	↓	1420	S	↓	1	X										
3	BH#3	↓	1427	S	↓	1	X										
4	Temp Blank																
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Aaron Strange

Shipment Method: FedEx

Required Turnaround Time: (Check Box) ☒ Other ASAP ☐ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour

Results Due Date:

	Date:	Time:	
Relinquished by: Aaron Strange	8-13-10	1615	Received by:
Relinquished by:	8/14/10	0845	Received by (Laboratory):
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes:

Cooler ID	Cooler Temp

QC Package: (Check One Box Below)
☐ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Date ☐ 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.
3. The Chain of Custody is a legal document. All information must be completed accurately.

T-836
T-801
© 2011 Google
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Mar 28, 2010
Eye alt 367 ft
Google

District I
1625 N. French Dr., Hobbs, NM 88240
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Energy Minerals and Natural Resources

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Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Plant	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Spill of Treated Waster Water (by Aggressive Bio. Treatment)	Volume of Release: Unknown	Volume Recovered: ~0 barrels
Source of Release: Effluent line leak between the Chukka and Gaines Injection Wells.	Date and Hour of Occurrence: 02/20/2010 ~ 12:10	Date and Hour of Discovery: 02/20/2010 ~ 12:30
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left a voicemail with Carl Chavez with OCD in Santa Fe (505-476-3490), left a voicemail with Hope Monzeglio from the NMED Haz Waste Bureau (505-476-6045), and left a voicemail with the OCD Artesia Office (575-748-1283 extension 104). OCD (Artesia) called back.	
By Whom? Darrell Moore	Date and Hour: 02/20/2010 at ~13:50 to Carl Chavez (OCD Santa Fe), 02/20/2010 at ~14:15 to Hope Monzeglio (NMED Haz Waste Bureau), and 02/31/2010 at ~14:17 to the OCD Artesia office.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 02/20/2010 at ~ 12:30 the waste water effluent line began to leak between the Chukka and Gaines Injection Wells. The effluent line was blocked in at the Waste Water Treater (inside the refinery) at ~ 13:04 on 02/20/2010 to stop the leak and repair the line. The leak was excavated and the line was clamped and is holding.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the effluent line between the Chukka and Gaines Injection wells. The leak was excavated to make repairs and the soil was placed into six roll off bins. The leak did not stain the soil; however Navajo will dispose of the excavated soil per analytical results.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 03/05/2010 Phone: 575-703-5057		

District I
1625 N. French Dr., Hobbs, NM 88240
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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Plant	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude ~N32°45'54.3" **Longitude** ~W104°14'17.4"

NATURE OF RELEASE

Type of Release: Spill of Treated Waste Water (by Aggressive Bio. Treatment)	Volume of Release: Unknown	Volume Recovered: ~0 barrels
Source of Release: Effluent line leak between the Chukka and Gaines Injection Wells.	Date and Hour of Occurrence: 02/20/2010 ~ 12:10	Date and Hour of Discovery: 02/20/2010 ~ 12:30
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left a voicemail with Carl Chavez with OCD in Santa Fe (505-476-3490), left a voicemail with Hope Monzeglio from the NMED Haz Waste Bureau (505-476-6045), and left a voicemail with the OCD Artesia Office (575-748-1283 extension 104). OCD (Artesia) called back.	
By Whom? Darrell Moore	Date and Hour: 02/20/2010 at ~13:50 to Carl Chavez (OCD Santa Fe), 02/20/2010 at ~14:15 to Hope Monzeglio (NMED Haz Waste Bureau), and 02/31/2010 at ~14:17 to the OCD Artesia office.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 02/20/2010 at ~ 12:30 the waste water effluent line began to leak between the Chukka and Gaines Injection Wells. The effluent line was blocked in at the Waste Water Treater (inside the refinery) at ~ 13:04 on 02/20/2010 to stop the leak and repair the line. The leak was excavated and the line was clamped and is holding.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the effluent line between the Chukka and Gaines Injection wells at ~ N32°45'54.3", W104°14'17.4". The leak was excavated to make repairs and the soil was placed into six roll off bins. The leak did not stain the soil; however Navajo has dispose of the excavated soil as Non-Hazardous Waste per analytical results. Bottom Hole samples were collected and tested for TPH. This same location was tested for BTEX, Metals, and Anions after the leak that occurred on 09/27/2010. This leak was just a few feet from the leaks that occurred on 04/15/2010 and 09/27/2010.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 11/10/2010 Phone: 575-703-5057		

ALS Laboratory Group

Date: *29-Mar-10*

Client: Navajo Refining Company
Project: Disposal
Work Order: 1003356
Sample ID: Waste Water Effluent Soil
Lab ID: 1003356-02
Collection Date: 3/12/2010 11:42 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY			**SW7470**		Prep Date: **3/19/2010**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	3/19/2010 04:13 PM
TCLP METALS			**SW1311/6020**		Prep Date: **3/19/2010**	Analyst: **SKS**
Arsenic	ND		0.0500	mg/L	10	3/19/2010 07:06 PM
Barium	**0.131**		**0.0500**	**mg/L**	10	3/19/2010 07:06 PM
Cadmium	ND		0.0500	mg/L	10	3/19/2010 07:06 PM
Chromium	ND		0.0500	mg/L	10	3/19/2010 07:06 PM
Lead	ND		0.0500	mg/L	10	3/19/2010 07:06 PM
Selenium	ND		0.0500	mg/L	10	3/19/2010 07:06 PM
Silver	ND		0.0500	mg/L	10	3/19/2010 07:06 PM
TCLP SEMIVOLATILES			**SW1311/8270**		Prep Date: **3/19/2010**	Analyst: **ACN**
2,4,5-Trichlorophenol	ND		5.0	µg/L	1	3/22/2010 05:10 PM
2,4,6-Trichlorophenol	ND		5.0	µg/L	1	3/22/2010 05:10 PM
2,4-Dinitrotoluene	ND		5.0	µg/L	1	3/22/2010 05:10 PM
Cresols, Total	ND		15	µg/L	1	3/22/2010 05:10 PM
Hexachlorobenzene	ND		5.0	µg/L	1	3/22/2010 05:10 PM
Hexachlorobutadiene	ND		5.0	µg/L	1	3/22/2010 05:10 PM
Hexachloroethane	ND		5.0	µg/L	1	3/22/2010 05:10 PM
Nitrobenzene	ND		5.0	µg/L	1	3/22/2010 05:10 PM
Pentachlorophenol	ND		5.0	µg/L	1	3/22/2010 05:10 PM
Pyridine	ND		5.0	µg/L	1	3/22/2010 05:10 PM
Surr: 2,4,6-Tribromophenol	*93.8*		*42-124*	*%REC*	1	3/22/2010 05:10 PM
Surr: 2-Fluorobiphenyl	*70.7*		*48-120*	*%REC*	1	3/22/2010 05:10 PM
Surr: 2-Fluorophenol	*63.6*		*20-120*	*%REC*	1	3/22/2010 05:10 PM
Surr: 4-Terphenyl-d14	*76.4*		*51-135*	*%REC*	1	3/22/2010 05:10 PM
Surr: Nitrobenzene-d5	*69.3*		*41-120*	*%REC*	1	3/22/2010 05:10 PM
Surr: Phenol-d6	*65.2*		*20-120*	*%REC*	1	3/22/2010 05:10 PM
TCLP VOLATILES			**SW1311/8260B**		Prep Date: **3/19/2010**	Analyst: **PC**
1,1-Dichloroethene	ND		100	µg/L	20	3/22/2010 03:51 PM
1,2-Dichloroethane	ND		100	µg/L	20	3/22/2010 03:51 PM
1,4-Dichlorobenzene	ND		100	µg/L	20	3/22/2010 03:51 PM
2-Butanone	ND		200	µg/L	20	3/22/2010 03:51 PM
Benzene	ND		100	µg/L	20	3/22/2010 03:51 PM
Carbon tetrachloride	ND		100	µg/L	20	3/22/2010 03:51 PM
Chlorobenzene	ND		100	µg/L	20	3/22/2010 03:51 PM
Chloroform	ND		100	µg/L	20	3/22/2010 03:51 PM
Tetrachloroethene	ND		100	µg/L	20	3/22/2010 03:51 PM
Trichloroethene	ND		100	µg/L	20	3/22/2010 03:51 PM

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

Client: Navajo Refining Company
Project: Disposal **Work Order:** 1003356
Sample ID: Waste Water Effluent Soil **Lab ID:** 1003356-02
Collection Date: 3/12/2010 11:42 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Vinyl chloride	ND		100	µg/L	20	3/22/2010 03:51 PM
Surr: 1,2-Dichloroethane-d4	*89.5*		*70-125*	*%REC*	20	3/22/2010 03:51 PM
Surr: 4-Bromofluorobenzene	*101*		*72-125*	*%REC*	20	3/22/2010 03:51 PM
Surr: Dibromofluoromethane	*92.4*		*71-125*	*%REC*	20	3/22/2010 03:51 PM
Surr: Toluene-d8	*98.0*		*75-125*	*%REC*	20	3/22/2010 03:51 PM
REACTIVE CYANIDE			**SW-846**			Analyst: **HN**
Reactive Cyanide	ND		40.0	mg/Kg	1	3/17/2010
REACTIVE SULFIDE			**SW-846**			Analyst: **HN**
Reactive Sulfide	ND		40.0	mg/Kg	1	3/17/2010
IGNITABILITY			**SW1030**			Analyst: **JBA**
Ignitability, Solid	**Negative**			**no unit**	1	3/23/2010 03:00 PM
PH			**SW9045B**			Analyst: **TDW**
pH	**7.96**		**0.100**	**pH Units**	1	3/23/2010 04:00 PM

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

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Chain of Custody Form

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☐ 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 #: 1005556

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	~~ABT Inlet/Outlet~~ Disposal	A	~~TKN (350)~~ TCLP Voas
Work Order		Project Number		B	~~BOD~~ TCLP SemiVoas
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	~~COD (410.1)~~ TCLP metals
Send Report To	Aaron Strange	Invoice Attn	Aaron Strange	D	~~Phenolics (420)~~ RCI
Address	501 E. Main	Address	501 E. Main	E	
				F	
City/State/Zip	Artesia, NM 88210	City/State/Zip	Artesia, NM 88210	G	
Phone	575 ~~(505)~~ 748-3311	Phone	575 ~~(505)~~ 748-3311	H	
Fax	575 ~~(505)~~ 746-5421	Fax	575 ~~(505)~~ 746-5421	I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	T-124 Excavated Soil	3-11-10	1420	S	Y	1	X	X	X	X							
2	Temp.																
3	Waste Water Effluent Soil	3-12-10	11:42	S	Y	1	X	X	X	X							
4	W-55 Blast Media	3-12-10	1313	S	Y	1	X	X	X	X							
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Aaron Strange

Shipment Method: Fed Ex

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

Results Due Date:

Relinquished by: Aaron Strange | Date: 3-12-10 | Time: 1615

Received by:

Notes: 10 Day TAT.

Relinquished by: | Date: | Time:

Received by (Laboratory): BR 3/13/10 08:40

Cooler ID | Cooler Temp.

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

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

Checked by (Laboratory):

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

ALS Laboratory Group

Date: 25-Mar-10

Client: Navajo Refining Company
Project: Bottom Hole
Work Order: **1003452**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1003452-01	WW Effluent #1	Soil		3/16/2010 14:13	3/18/2010 08:35	☐
1003452-02	WW Effluent #2	Soil		3/16/2010 14:18	3/18/2010 08:35	☐
1003452-03	WW Effluent #3	Soil		3/16/2010 14:22	3/18/2010 08:35	☐

ALS Laboratory Group

Date: *25-Mar-10*

Client: Navajo Refining Company
Project: Bottom Hole
Sample ID: WW Effluent #1
Collection Date: 3/16/2010 02:13 PM

Work Order: 1003452
Lab ID: 1003452-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **3/19/2010**	Analyst: **KMB**
nC6 to nC12	ND		50	mg/Kg	1	3/20/2010 09:53 PM
>nC12 to nC28	ND		50	mg/Kg	1	3/20/2010 09:53 PM
>nC28 to nC35	ND		50	mg/Kg	1	3/20/2010 09:53 PM
Total Petroleum Hydrocarbon	ND		50	mg/Kg	1	3/20/2010 09:53 PM
Surr: 2-Fluorobiphenyl	*89.9*		*70-130*	*%REC*	1	3/20/2010 09:53 PM
Surr: Trifluoromethyl benzene	*90.1*		*70-130*	*%REC*	1	3/20/2010 09:53 PM

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

ALS Laboratory Group

Date: *25-Mar-10*

Client: Navajo Refining Company
Project: Bottom Hole
Work Order: 1003452
Sample ID: WW Effluent #2
Lab ID: 1003452-02
Collection Date: 3/16/2010 02:18 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **3/19/2010**	Analyst: **KMB**
nC6 to nC12	ND		50	mg/Kg	1	3/21/2010 12:49 AM
>nC12 to nC28	ND		50	mg/Kg	1	3/21/2010 12:49 AM
>nC28 to nC35	ND		50	mg/Kg	1	3/21/2010 12:49 AM
Total Petroleum Hydrocarbon	ND		50	mg/Kg	1	3/21/2010 12:49 AM
Surr: 2-Fluorobiphenyl	*99.4*		*70-130*	*%REC*	1	3/21/2010 12:49 AM
Surr: Trifluoromethyl benzene	*97.5*		*70-130*	*%REC*	1	3/21/2010 12:49 AM

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

ALS Laboratory Group

Date: *25-Mar-10*

Client: Navajo Refining Company
Project: Bottom Hole
Work Order: 1003452
Sample ID: WW Effluent #3
Lab ID: 1003452-03
Collection Date: 3/16/2010 02:22 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **3/19/2010**	Analyst: **KMB**
nC6 to nC12	ND		50	mg/Kg	1	3/21/2010 01:18 AM
>nC12 to nC28	ND		50	mg/Kg	1	3/21/2010 01:18 AM
>nC28 to nC35	ND		50	mg/Kg	1	3/21/2010 01:18 AM
Total Petroleum Hydrocarbon	ND		50	mg/Kg	1	3/21/2010 01:18 AM
Surr: 2-Fluorobiphenyl	*77.1*		*70-130*	*%REC*	1	3/21/2010 01:18 AM
Surr: Trifluoromethyl benzene	*77.1*		*70-130*	*%REC*	1	3/21/2010 01:18 AM

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

Chain of Custody Form

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☐ ALS Laboratory Group
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Holland, MI 49424-9263
Tel: +1 616 399 6070
Fax: +1 616 399 6185

ALS Project Manager:
ALS Work Order #: 1003452

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	~~[illegible]~~ Bottom Hole	A	~~TKN (350)~~ TPH
Work Order		Project Number		B	~~BOD~~
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	~~COD (410.4)~~
Send Report To	Aaron Strange	Invoice Attn	Aaron Strange	D	~~Phenolics (420)~~
Address	~~[illegible]~~ 501 E. Main	Address	~~[illegible]~~ 501 E. Main	E	
				F	
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	
Phone	~~(505)~~ 575 748-3311	Phone	~~(505)~~ 575 748-3311	H	
Fax	~~(505)~~ 575 746-5421	Fax	~~(505)~~ 575 746-5421	I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WW Effluent #1	3-16-10	1413	S	None	1	X										
2	WW Effluent #2	↓	1418	S	↓	1	X										
3	WW Effluent #3	↓	1422	S	↓	1	X										
4	Temp Blank																
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Aaron Strange
Shipment Method: FedEx
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: 3-17-10	Time: 1615	Received by: [signature]
Relinquished by:	Date:	Time:	Received by (Laboratory): [signature] 3/18/10 0835
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: 10 Day 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

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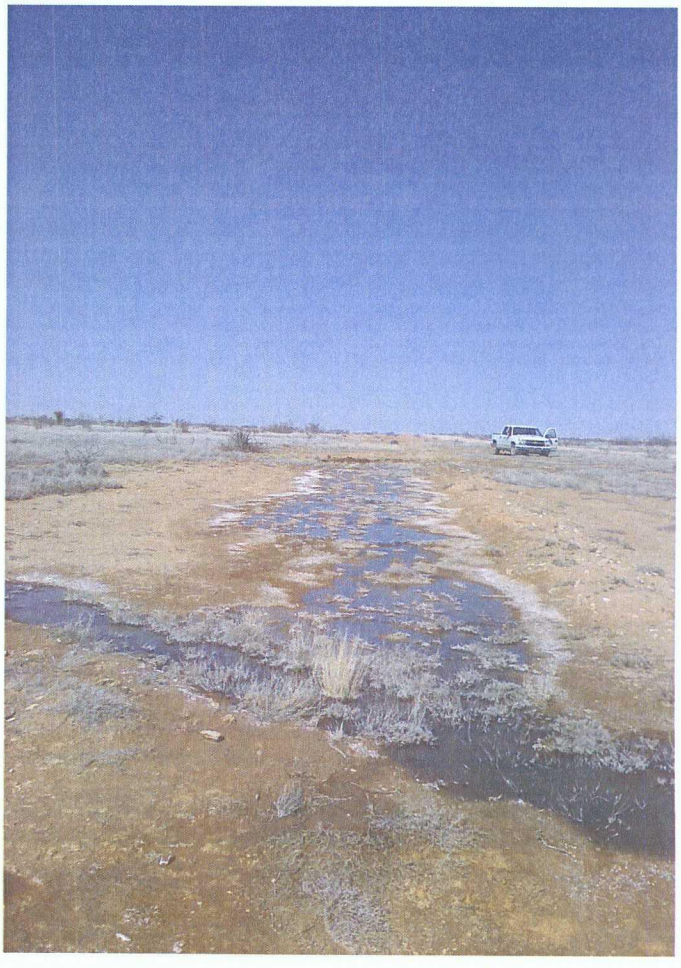
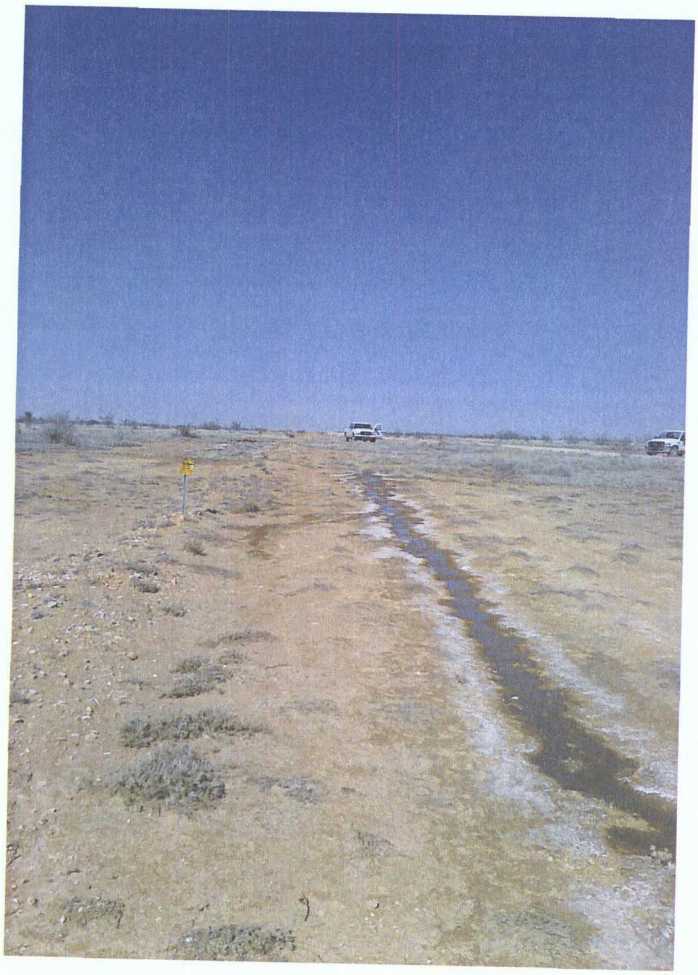
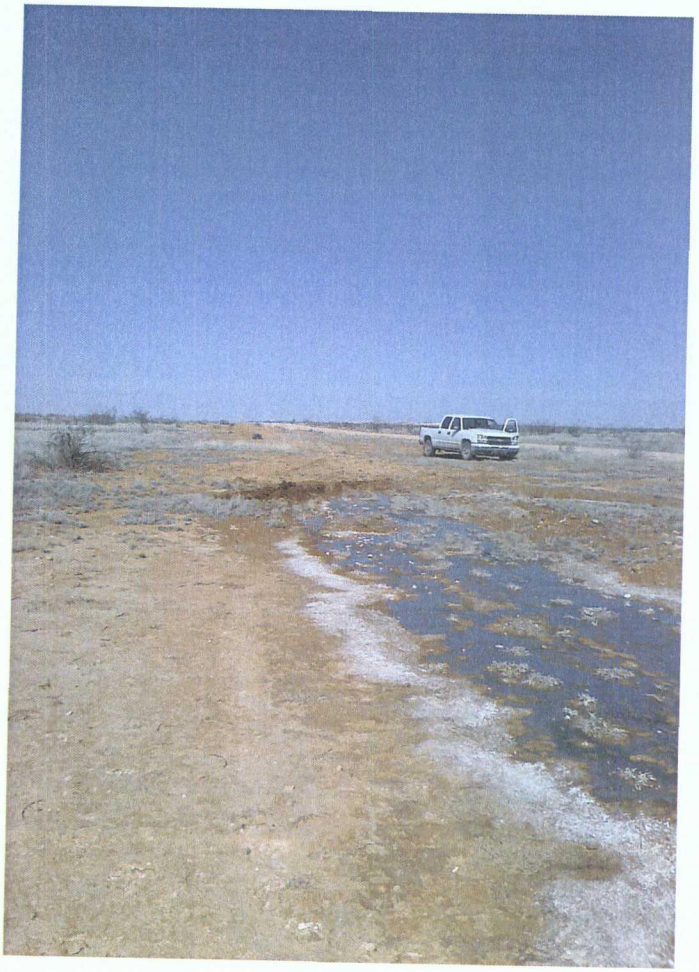
2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.







District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Plant	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Carbon Black Oil (CBO) Spill.	Volume of Release: ~7 to 8 barrels	Volume Recovered: 0 barrels
Source of Release: Rail Loading Valve at CBO Loading Rack.	Date and Hour of Occurrence: 02/23/2010 at ~ 07:30	Date and Hour of Discovery: 02/23/2010 at ~ 07:45
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? NA	
By Whom?	Date and Hour: NA	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 02/23/2010 at ~ 07:30 Carbon Black Oil (CBO) spilled out of a rail loading valve at the CBO Loading Rack. The valve was left open the night before and spilled as the first truck of the day was being loaded. The valve was closed when the spill was found. Operators are now required to lock all loading valves closed after use and to walk the rack checking each loading valve before loading.

Describe Area Affected and Cleanup Action Taken.*
The area affected was a ~ 6'x40' area between the rail road tracks at the CBO Loading Rack. The CBO and contaminated soil has been remove and placed into two roll off bins and is being disposed of as Non-Hazardous Waste at Controlled Recovery Inc. A bottom hole/confirmation sample will be collected and analyzed.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 03/05/2010 Phone: 575-703-5057		

District I
1625 N. French Dr., Hobbs, NM 88240
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District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Plant	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Carbon Black Oil (CBO) Spill.	Volume of Release: ~7 to 8 barrels	Volume Recovered: 0 barrels
Source of Release: Rail Loading Valve at CBO Loading Rack.	Date and Hour of Occurrence: 02/23/2010 at ~ 07:30	Date and Hour of Discovery: 02/23/2010 at ~ 07:45
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? NA	
By Whom?	Date and Hour: NA	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 02/23/2010 at ~ 07:30 Carbon Black Oil (CBO) spilled out of a rail loading valve at the CBO Loading Rack. The valve was left open the night before and spilled as the first truck of the day was being loaded. The valve was closed when the spill was found. Operators are now required to lock all loading valves closed after use and to walk the rack checking each loading valve before loading.

Describe Area Affected and Cleanup Action Taken.*
The area affected was a ~ 6'x40' area between the rail road tracks at the CBO Loading Rack. The CBO and contaminated soil has been remove and placed into two roll off bins and is being disposed of as Non-Hazardous Waste at Controlled Recovery Inc. A bottom hole/confirmation sample will be collected and analyzed.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 03/05/2010 Phone: 575-703-5057		

ALS Laboratory Group

Date: 22-Mar-10

Client: Navajo Refining Company
Project: Bottom Hole
Work Order: **1003353**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1003353-01	CBO Rack Spill BH #1	Soil		3/12/2010 14:02	3/13/2010 08:40	☐
1003353-02	CBO Rack Spill BH #2	Soil		3/12/2010 14:10	3/13/2010 08:40	☐
1003353-03	CBO Rack Spill BH #3	Soil		3/12/2010 14:18	3/13/2010 08:40	☐

ALS Laboratory Group

Date: *22-Mar-10*

Client: Navajo Refining Company
Project: Bottom Hole
Sample ID: CBO Rack Spill BH #1
Collection Date: 3/12/2010 02:02 PM

Work Order: 1003353
Lab ID: 1003353-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **3/15/2010**	Analyst: **KMB**
nC6 to nC12	ND		49	mg/Kg	1	3/18/2010 11:16 AM
>nC12 to nC28	**120**		**49**	**mg/Kg**	1	3/18/2010 11:16 AM
>nC28 to nC35	**160**		**49**	**mg/Kg**	1	3/18/2010 11:16 AM
Total Petroleum Hydrocarbon	**280**		**49**	**mg/Kg**	1	3/18/2010 11:16 AM
Surr: 2-Fluorobiphenyl	*82.1*		*70-130*	*%REC*	1	3/18/2010 11:16 AM
Surr: Trifluoromethyl benzene	*82.9*		*70-130*	*%REC*	1	3/18/2010 11:16 AM

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

ALS Laboratory Group

Date: *22-Mar-10*

Client: Navajo Refining Company
Project: Bottom Hole
Sample ID: CBO Rack Spill BH #2
Collection Date: 3/12/2010 02:10 PM

Work Order: 1003353
Lab ID: 1003353-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **3/15/2010**	Analyst: **KMB**
nC6 to nC12	ND		990	mg/Kg	20	3/18/2010 03:14 PM
>nC12 to nC28	**15,000**		**990**	**mg/Kg**	20	3/18/2010 03:14 PM
>nC28 to nC35	**4,600**		**990**	**mg/Kg**	20	3/18/2010 03:14 PM
Total Petroleum Hydrocarbon	**19,600**		**990**	**mg/Kg**	20	3/18/2010 03:14 PM
Surr: 2-Fluorobiphenyl	*92.7*		*70-130*	*%REC*	20	3/18/2010 03:14 PM
Surr: Trifluoromethyl benzene	*97.1*		*70-130*	*%REC*	20	3/18/2010 03:14 PM

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

ALS Laboratory Group

Date: *22-Mar-10*

Client: Navajo Refining Company
Project: Bottom Hole
Sample ID: CBO Rack Spill BH #3
Collection Date: 3/12/2010 02:18 PM

Work Order: 1003353
Lab ID: 1003353-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **3/15/2010**	Analyst: **KMB**
nC6 to nC12	ND		49	mg/Kg	1	3/18/2010 03:10 AM
>nC12 to nC28	**370**		**49**	**mg/Kg**	1	3/18/2010 03:10 AM
>nC28 to nC35	ND		49	mg/Kg	1	3/18/2010 03:10 AM
Total Petroleum Hydrocarbon	**370**		**49**	**mg/Kg**	1	3/18/2010 03:10 AM
Surr: 2-Fluorobiphenyl	*116*		*70-130*	*%REC*	1	3/18/2010 03:10 AM
Surr: Trifluoromethyl benzene	*98.4*		*70-130*	*%REC*	1	3/18/2010 03:10 AM

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

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Chain of Custody Form

Page 1 of 1

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Holland, MI 49424-9263
Tel: +1 616 399 6070
Fax: +1 616 399 6185

ALS Project Manager: | ALS Work Order #: 1005353

Customer Information		Project Information		Parameter/Method Request for Analysis
Purchase Order		Project Name	~~ABT Mech Spill~~ Bottom Hole	A ~~TKN (350)~~ TPH
Work Order		Project Number		B ~~BOD~~
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C ~~COD (410.4)~~
Send Report To	Aaron Strange	Invoice Attn	Aaron Strange	D ~~Phenolics (420.2)~~
Address	~~501~~ E. Main 501	Address	~~501~~ E. Main 501	E
				F
City/State/Zip	Artesia, NM 88210	City/State/Zip	Artesia, NM 88210	G
Phone	575 (~~505~~) 748-3311	Phone	575 (~~505~~) 748-3311	H
Fax	575 (~~505~~) 746-5421	Fax	575 (~~505~~) 746-5421	I
e-Mail Address		e-Mail Address		J

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	CBO Rack Spill BH #1	3-12-10	~~14:02~~ 1415	S	None	1	X										
2	" " " " #2	"	14:10	S	"	1	X										
3	" " " " #3	"	14:18	S	"	1	X										
4	Temp.																
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Aaron Strange
Shipment Method: Fed Ex
Required Turnaround Time: (Check Box) ☑ Std 10 WK Days ☐ 5 WK Days ☐ 2 WK Days ☐ Other ☐ 24 Hour
Results Due Date:

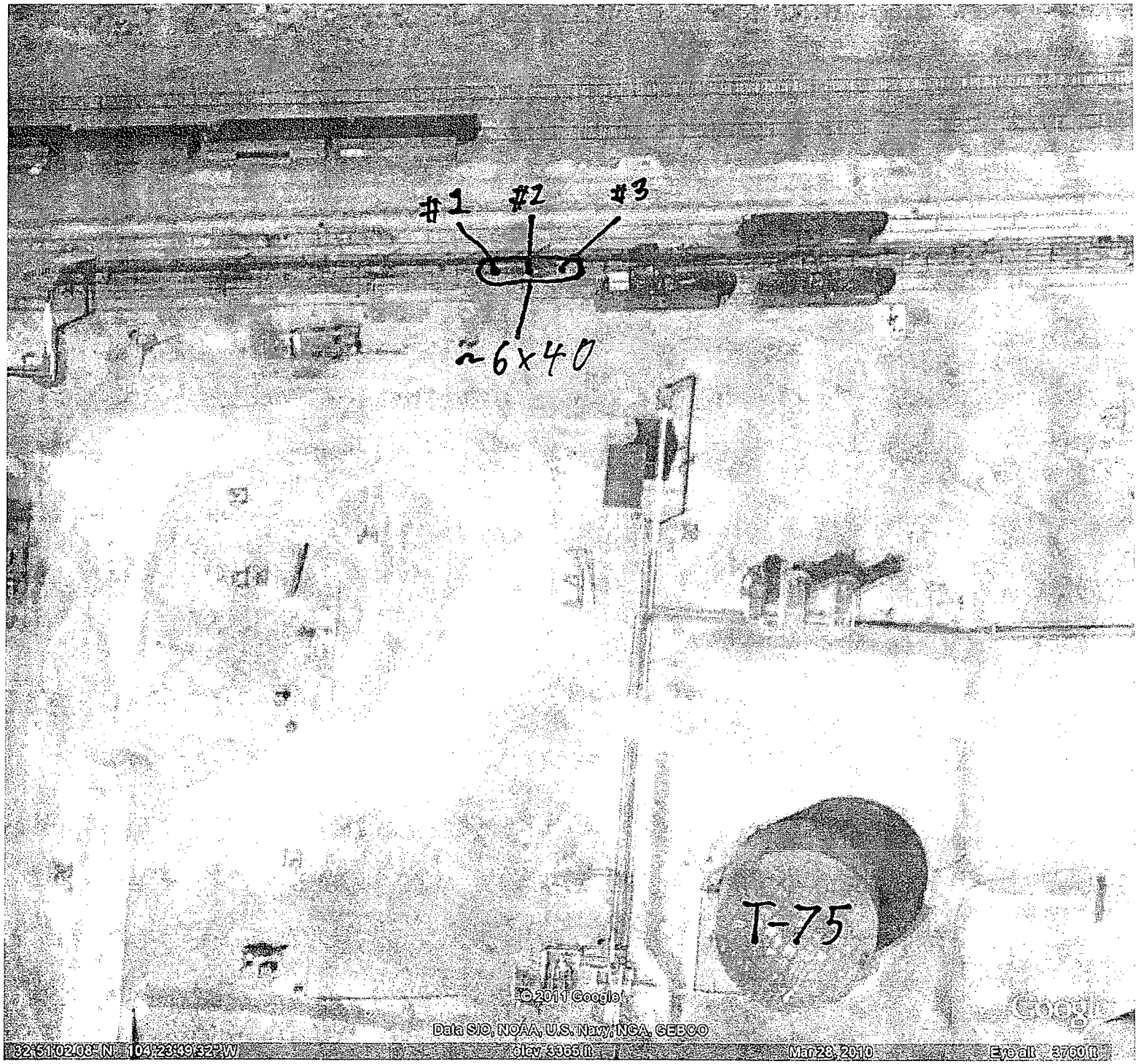
Relinquished by: Aaron Strange	Date: 3-12-10	Time: 1615	Received by:	Notes: 10 Day TAT.	
Relinquished by:	Date:	Time:	Received by (Laboratory): DAT 3/13/10	8:40	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):		

Cooler ID | Cooler Temp.

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


#1
#2
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~6x40
T-75
©2011 Google
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
32°51'02.08" N 104°23'49.32" W
elev 3365 ft
Mar 28, 2010
Eye alt 3760 ft

NON-HAZARDOUS WASTE MANIFEST 44530

PART I: Generator Navajo Refining Co. LLC
Address PO Box 159
City/State Artesia, NM 88211-0159
(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia Permit No. NMD048918817

Property Name
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	
DESCRIPTION / NOTES					
Cont Soil 12 Yds					
CBO Rock					

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers
Address
City/State
Telephone No.
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

3-1-10
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**
(575) 393-1079
Telephone No.
www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

Date and Time Received

NON-HAZARDOUS WASTE MANIFEST 44510

PART I: Generator Navajo Refining Co. LLC
Address PO Box 159 (575-748-3311
City/State Artesia, NM 88211-0159 Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia Permit No. NM0048918817

Property Name
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	
DESCRIPTION / NOTES					
Trash & Debris / Soil 12yds					
C&D Rock					

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent — Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers
Address
City/State
Telephone No.
5
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent — 3-8-10 Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.** **(575) 393-1079** Telephone No.
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388** **www.crihobbs.com** E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent — 3-9-10 Date and Time Received

TCP - #7520-A

NON-HAZARDOUS WASTE MANIFEST 48266

PART I: Generator Navajo Refining Co. LLC
Address PO Box 159
City/State Artesia, NM 88211-0159
(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia Permit No. NMD048918817

Property Name CPO Fill Station
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	

DESCRIPTION / NOTES

Cont Soil 12 Yds
Asphalt 12 Yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Carrie Hernandez
Signature of Generator's Authorized Agent

Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers
Address
City/State Artesia NM

Telephone No.

1
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Greg Stinnon
Signature of Transporter's Agent

6-3-10
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.** **(575) 393-1079**
Address **P.O. Box 388** Telephone No.
City/State **Hobbs, N.M. 88241-0388** **www.crihobbs.com**
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

6-3-10
Date and Time Received

TCP - #7520-A

0214

NON-HAZARDOUS WASTE MANIFEST

PART I: Generator Navajo Refining Co. LLC
Address PO Box 159
City/State Artesia, NM 88211-0159
(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia Permit No. NMD048918817

Property Name CPO Fill Station
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	

DESCRIPTION / NOTES		
Aspha lt	Cont. Soil	12yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers
Address
City/State Artesia NM
Telephone No.
1
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

6-11-10
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.** **(575) 393-1079**
Address **P.O. Box 388** Telephone No.
City/State **Hobbs, N.M. 88241-0388** **www.crihobbs.com**
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

6-11-10
Date and Time Received

TCP - #7520-A

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Leak/spill of gasoline.	Volume of Release: Unknown	Volume Recovered: Unknown
Source of Release: Underground pipe south of Tank T-115..	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: February 2010
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom? NA (Johnny Lackey has notified Carl Chavez with the OCD Santa Fe Office by email about the Praxair findings).	
By Whom? NA	Date and Hour: NA	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
Navajo has employed Praxair Services, Inc. (Praxair) to set up a comprehensive tank leak detection program throughout the Artesia and Lovington refineries. Praxair sampling results identified an underground pipe south of tank T-115 that indicated a leak was present. A very small leak **(drip)** was discovered. There was no saturation of the soil around the leak and no free product was present. A clamp was used to repair the leak.

Describe Area Affected and Cleanup Action Taken.*
The area affected was at an underground pipe just south of T-115. The soil was excavated and will be disposed of per sampling results. The leak was a very small **(drip)**. There was no saturation of the soil around the leak and no free product was present.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 04/28/2010 Phone: 575-703-5057		

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Leak/spill of gasoline.	Volume of Release: Unknown	Volume Recovered: Unknown
Source of Release: Underground pipe near Texas Street just northeast of Tank T-413.	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: February 2010
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom? NA (Johnny Lackey has notified Carl Chavez with the OCD Santa Fe Office by email about the Praxair findings).	
By Whom? NA	Date and Hour: NA	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
Navajo has employed Praxair Services, Inc. (Praxair) to set up a comprehensive tank leak detection program throughout the Artesia and Lovington refineries. Praxair sampling results identified an underground pipe near Texas Street just northeast of Tank T-413 that indicated a leak was present. A very small leak **(drip)** was discovered. There was no saturation of the soil around the leak and no free product was present. A clamp was used to repair the leak.

Describe Area Affected and Cleanup Action Taken.*
The area affected was at an underground pipe near Texas Street just northeast of Tank T-413. The soil was excavated and disposed of as Non Hazardous waste per sampling results. The leak was a very small **(drip)**. There was no saturation of the soil around the leak and no free product was present.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 04/28/2010 Phone: 575-703-5057		

* Attach Additional Sheets If Necessary

ALS Laboratory Group

Date: *29-Mar-10*

Client: Navajo Refining Company
Project: Disposal
Work Order: 1003356
Sample ID: T-124 Excavated Soil
Lab ID: 1003356-01
Collection Date: 3/11/2010 02:20 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY			**SW7470**		Prep Date: **3/19/2010**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	3/19/2010 04:11 PM
TCLP METALS			**SW1311/6020**		Prep Date: **3/19/2010**	Analyst: **SKS**
Arsenic	ND		0.0500	mg/L	10	3/19/2010 07:00 PM
Barium	**2.76**		**0.0500**	**mg/L**	10	3/19/2010 07:00 PM
Cadmium	ND		0.0500	mg/L	10	3/19/2010 07:00 PM
Chromium	ND		0.0500	mg/L	10	3/19/2010 07:00 PM
Lead	ND		0.0500	mg/L	10	3/19/2010 07:00 PM
Selenium	ND		0.0500	mg/L	10	3/19/2010 07:00 PM
Silver	ND		0.0500	mg/L	10	3/19/2010 07:00 PM
TCLP SEMIVOLATILES			**SW1311/8270**		Prep Date: **3/19/2010**	Analyst: **ACN**
2,4,5-Trichlorophenol	ND		5.0	µg/L	1	3/22/2010 04:46 PM
2,4,6-Trichlorophenol	ND		5.0	µg/L	1	3/22/2010 04:46 PM
2,4-Dinitrotoluene	ND		5.0	µg/L	1	3/22/2010 04:46 PM
Cresols, Total	ND		15	µg/L	1	3/22/2010 04:46 PM
Hexachlorobenzene	ND		5.0	µg/L	1	3/22/2010 04:46 PM
Hexachlorobutadiene	ND		5.0	µg/L	1	3/22/2010 04:46 PM
Hexachloroethane	ND		5.0	µg/L	1	3/22/2010 04:46 PM
Nitrobenzene	ND		5.0	µg/L	1	3/22/2010 04:46 PM
Pentachlorophenol	ND		5.0	µg/L	1	3/22/2010 04:46 PM
Pyridine	ND		5.0	µg/L	1	3/22/2010 04:46 PM
Surr: 2,4,6-Tribromophenol	*89.8*		*42-124*	*%REC*	1	3/22/2010 04:46 PM
Surr: 2-Fluorobiphenyl	*70.0*		*48-120*	*%REC*	1	3/22/2010 04:46 PM
Surr: 2-Fluorophenol	*59.4*		*20-120*	*%REC*	1	3/22/2010 04:46 PM
Surr: 4-Terphenyl-d14	*76.1*		*51-135*	*%REC*	1	3/22/2010 04:46 PM
Surr: Nitrobenzene-d5	*73.3*		*41-120*	*%REC*	1	3/22/2010 04:46 PM
Surr: Phenol-d6	*63.2*		*20-120*	*%REC*	1	3/22/2010 04:46 PM
TCLP VOLATILES			**SW1311/8260B**		Prep Date: **3/19/2010**	Analyst: **PC**
1,1-Dichloroethene	ND		100	µg/L	20	3/22/2010 02:38 PM
1,2-Dichloroethane	ND		100	µg/L	20	3/22/2010 02:38 PM
1,4-Dichlorobenzene	ND		100	µg/L	20	3/22/2010 02:38 PM
2-Butanone	ND		200	µg/L	20	3/22/2010 02:38 PM
Benzene	ND		100	µg/L	20	3/22/2010 02:38 PM
Carbon tetrachloride	ND		100	µg/L	20	3/22/2010 02:38 PM
Chlorobenzene	ND		100	µg/L	20	3/22/2010 02:38 PM
Chloroform	ND		100	µg/L	20	3/22/2010 02:38 PM
Tetrachloroethene	ND		100	µg/L	20	3/22/2010 02:38 PM
Trichloroethene	ND		100	µg/L	20	3/22/2010 02:38 PM

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

Client: Navajo Refining Company
Project: Disposal **Work Order:** 1003356
Sample ID: T-124 Excavated Soil **Lab ID:** 1003356-01
Collection Date: 3/11/2010 02:20 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Vinyl chloride	ND		100	µg/L	20	3/22/2010 02:38 PM
Surr: 1,2-Dichloroethane-d4	*94.7*		*70-125*	*%REC*	20	3/22/2010 02:38 PM
Surr: 4-Bromofluorobenzene	*101*		*72-125*	*%REC*	20	3/22/2010 02:38 PM
Surr: Dibromofluoromethane	*95.0*		*71-125*	*%REC*	20	3/22/2010 02:38 PM
Surr: Toluene-d8	*101*		*75-125*	*%REC*	20	3/22/2010 02:38 PM
REACTIVE CYANIDE			**SW-846**			Analyst: **HN**
Reactive Cyanide	ND		40.0	mg/Kg	1	3/17/2010
REACTIVE SULFIDE			**SW-846**			Analyst: **HN**
Reactive Sulfide	ND		40.0	mg/Kg	1	3/17/2010
IGNITABILITY			**SW1030**			Analyst: **JBA**
Ignitability, Solid	**Negative**			**no unit**	1	3/23/2010 03:00 PM
PH			**SW9045B**			Analyst: **TDW**
pH	**8.51**		**0.100**	**pH Units**	1	3/23/2010 04:00 PM

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

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

Chain of Custody Form

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 #: 1003556

Customer Information		Project Information		Parameter/Method Request for Analysis
Purchase Order		Project Name	~~ABT Inlet/Outlet~~ Disposal	A ~~TKN (350)~~ TCLP Voas
Work Order		Project Number		B ~~BOD~~ TCLP SemiVoas
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C ~~COD (410.1)~~ TCLP metals
Send Report To	Aaron Strange	Invoice Attn	Aaron Strange	D ~~Phenolics (420)~~ RCI
Address	501 E. Main	Address	501 E. Main	E
				F
City/State/Zip	Artesia, NM 88210	City/State/Zip	Artesia, NM 88210	G
Phone	575 ~~(505)~~ 748-3311	Phone	575 ~~(505)~~ 748-3311	H
Fax	575 ~~(505)~~ 746-5421	Fax	575 ~~(505)~~ 746-5421	I
e-Mail Address		e-Mail Address		J

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	T-124 Excavated Soil	3-11-10	1420	S	Y	1	X	X	X	X							
2	Temp.																
3	Waste Water Effluent Soil	3-12-10	11:42	S	Y	1	X	X	X	X							
4	W-55 Blast Media	3-12-10	1313	S	Y	1	X	X	X	X							
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Aaron Strange

Shipment Method: Fed Ex

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

Results Due Date:

Relinquished by: Aaron Strange | Date: 3-12-10 | Time: 1615 | Received by:

Notes: 10 Day TAT.

Relinquished by: | Date: | Time: | Received by (Laboratory): RF 3/13/10 08:40

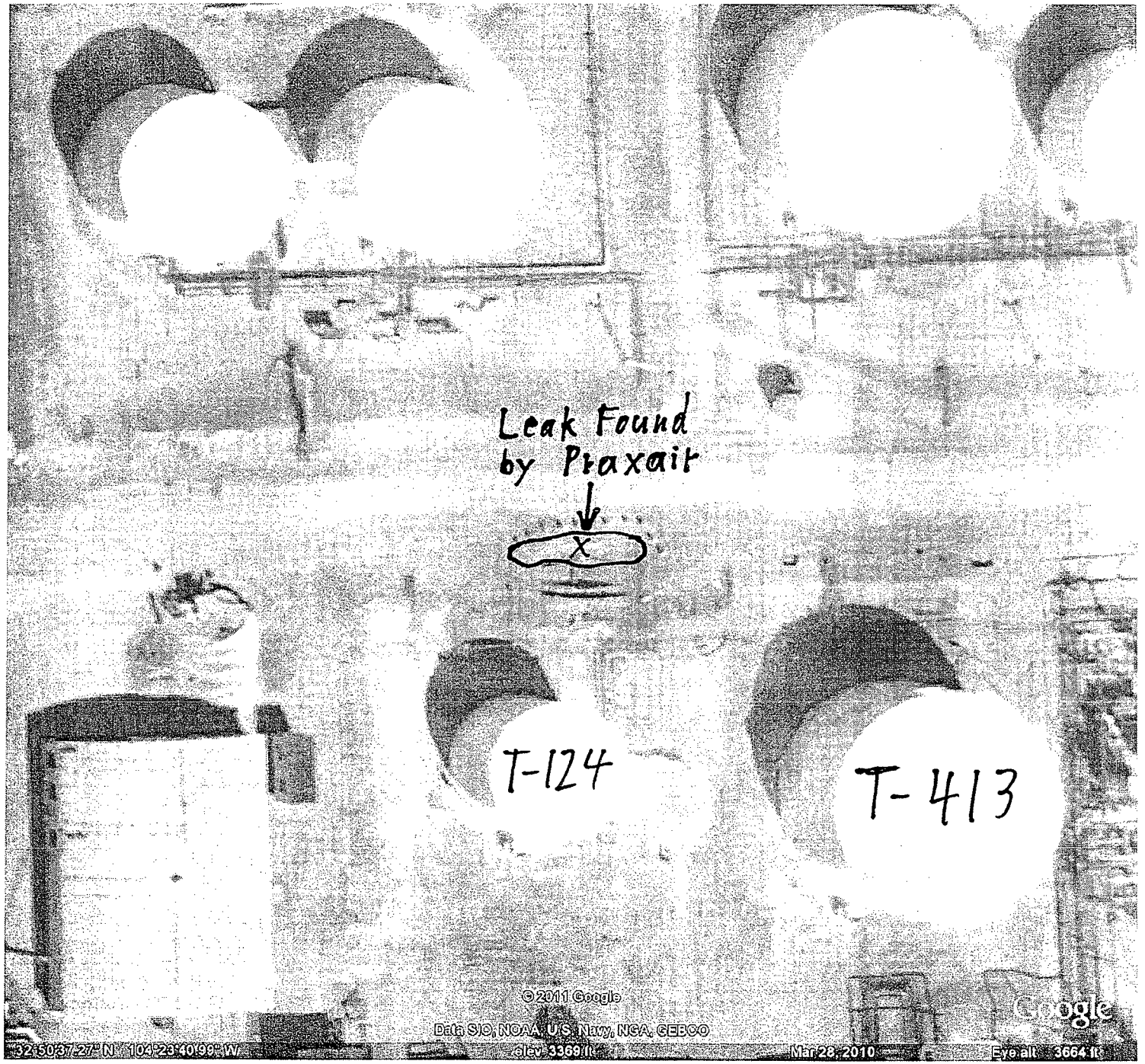
Cooler ID | Cooler Temp.

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

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


Leak Found
by Praxair
X
T-124
T-413
©2011 Google
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
32°30'37.27" N 104°23'40.99" W
elev 3369 ft
Mar 28, 2010
Eye alt 3664 ft

36683

NON-HAZARDOUS WASTE MANIFEST

PART I: Generator Navajo Refining Co. LLC

Address PO Box 159

City/State Artesia, NM 88211-0159

(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia

Permit No. NMED048918817

Property Name Tank 124
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	

DESCRIPTION / NOTES
Cont. Soil 12 yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers

Address

City/State Artesia NM

Telephone No.

Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

4/11/10
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**

Address **P.O. Box 388**

City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

4/21/10
Date and Time Received

THE COLOR PRINTER #7520-A

NON-HAZARDOUS WASTE MANIFEST 48270

PART I: Generator Navajo Refining Co. LLC
Address PO Box 159 (575) 748-3311
City/State Artesia, NM 88211-0159 Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia Permit No. NM0148916817

Property Name _____
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	
DESCRIPTION / NOTES					
Cont Soil 12 Yds					
Tank 124					

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent — 4-21-10 Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers
Address _____ Telephone No.
City/State _____ Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent — 4-21-10 Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.** **(575) 393-1079** Telephone No.
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388** **www.crihobbs.com** E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent — 4-21-10 Date and Time Received

TCP - #7520-A

36684

NON-HAZARDOUS WASTE MANIFEST

PART I: Generator Navajo Refining Co. LLC

Address PO Box 159

City/State Artesia, NM 88211-0159

(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia

Permit No. NMD048918817

Property Name Tank 1-194
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	
DESCRIPTION / NOTES					
Cont. Soil 12 yds					

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers

Address [illegible]

City/State [illegible]

Telephone No.

1
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

12/22/00
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**

Address **P.O. Box 388**

City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

12-10 2:32 pm
Date and Time Received

THE COLOR PRINTER #7520-A

NON-HAZARDOUS WASTE MANIFEST 48288

PART I: Generator Navajo Refining Co. LLC
Address PO Box 159
City/State Artesia, NM 88211-0159
(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia Permit No. NMD048918817

Property Name 124 TK
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	
DESCRIPTION / NOTES					
12 Yds Cont. Soil Bollweevil					

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Carrie Hernandez
Signature of Generator's Authorized Agent

Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers
Address
City/State Artesia N. M.

Telephone No.

3
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

4-23-10
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.** **(575) 393-1079**
Address **P.O. Box 388** Telephone No.
City/State **Hobbs, N.M. 88241-0388** **www.crihobbs.com**
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

4-23-10
Date and Time Received

TCP - #7520-A

NON-HAZARDOUS WASTE MANIFEST 48286

PART I: Generator Navajo Refining Co. LLC
Address PO Box 159
City/State Artesia, NM 88211-0159
(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia Permit No. NMD048918817

Property Name 124 TK
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	
DESCRIPTION / NOTES					
12					
~~20~~ Yds Cont. Soil Belly Dump					

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Carrie Hernandez
Signature of Generator's Authorized Agent

Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers
Address
City/State Artesia N. M.
Telephone No.
3
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

4-26-10
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**
(575) 393-1079
Telephone No.
www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

4/26/10
Date and Time Received

TCP - #7520-A

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Leak/spill of gasoline.	Volume of Release: Unknown	Volume Recovered: Unknown
Source of Release: Underground pipe near Texas Street just northeast of Tank T-413.	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: February 2010
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom? NA (Johnny Lackey has notified Carl Chavez with the OCD Santa Fe Office by email about the Praxair findings).	
By Whom? NA	Date and Hour: NA	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
Navajo has employed Praxair Services, Inc. (Praxair) to set up a comprehensive tank leak detection program throughout the Artesia and Lovington refineries. Praxair sampling results identified an underground pipe near Texas Street just northeast of Tank T-413 that indicated a leak was present. A very small leak **(drip)** was discovered. There was no saturation of the soil around the leak and no free product was present. A clamp was used to repair the leak.

Describe Area Affected and Cleanup Action Taken.*
The area affected was at an underground pipe near Texas Street just northeast of Tank T-413. The soil was excavated and disposed of as Non Hazardous waste per sampling results. The leak was a very small **(drip)**. There was no saturation of the soil around the leak and no free product was present.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 04/28/2010 Phone: 575-703-5057		

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Leak/spill of gasoline.	Volume of Release: Unknown	Volume Recovered: Unknown
Source of Release: Underground pipe south of Tank T-115..	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: February 2010
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom? NA (Johnny Lackey has notified Carl Chavez with the OCD Santa Fe Office by email about the Praxair findings).	
By Whom? NA	Date and Hour: NA	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
Navajo has employed Praxair Services, Inc. (Praxair) to set up a comprehensive tank leak detection program throughout the Artesia and Lovington refineries. Praxair sampling results identified an underground pipe south of tank T-115 that indicated a leak was present. A very small leak **(drip)** was discovered. There was no saturation of the soil around the leak and no free product was present. A clamp was used to repair the leak.

Describe Area Affected and Cleanup Action Taken.*
The area affected was at an underground pipe just south of T-115. The soil was excavated and will be disposed of per sampling results. The leak was a very small **(drip)**. There was no saturation of the soil around the leak and no free product was present.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 04/28/2010 Phone: 575-703-5057		

* Attach Additional Sheets If Necessary

ALS Laboratory Group

Date: *03-May-10*

Client: Navajo Refining Company
Project: Disposal
Work Order: 1004372
Sample ID: T-115-Esc Soil
Lab ID: 1004372-01
Collection Date: 4/14/2010 02:53 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY			**SW7470**		Prep Date: **4/20/2010**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	4/20/2010 01:42 PM
TCLP METALS			**SW1311/6020**		Prep Date: **4/19/2010**	Analyst: **SKS**
Arsenic	ND		0.0500	mg/L	10	4/19/2010 04:09 PM
Barium	**0.471**		**0.0500**	**mg/L**	10	4/19/2010 04:09 PM
Cadmium	ND		0.0500	mg/L	10	4/19/2010 04:09 PM
Chromium	ND		0.0500	mg/L	10	4/19/2010 04:09 PM
Lead	ND		0.0500	mg/L	10	4/19/2010 04:09 PM
Selenium	ND		0.0500	mg/L	10	4/19/2010 04:09 PM
Silver	ND		0.0500	mg/L	10	4/19/2010 04:09 PM
TCLP SEMIVOLATILES			**SW1311/8270**		Prep Date: **4/21/2010**	Analyst: **ACN**
2,4,5-Trichlorophenol	ND		5.0	µg/L	1	4/21/2010 08:22 PM
2,4,6-Trichlorophenol	ND		5.0	µg/L	1	4/21/2010 08:22 PM
2,4-Dinitrotoluene	ND		5.0	µg/L	1	4/21/2010 08:22 PM
Cresols, Total	ND		15	µg/L	1	4/21/2010 08:22 PM
Hexachlorobenzene	ND		5.0	µg/L	1	4/21/2010 08:22 PM
Hexachlorobutadiene	ND		5.0	µg/L	1	4/21/2010 08:22 PM
Hexachloroethane	ND		5.0	µg/L	1	4/21/2010 08:22 PM
Nitrobenzene	ND		5.0	µg/L	1	4/21/2010 08:22 PM
Pentachlorophenol	ND		5.0	µg/L	1	4/21/2010 08:22 PM
Pyridine	ND		5.0	µg/L	1	4/21/2010 08:22 PM
Surr: 2,4,6-Tribromophenol	*71.8*		*42-124*	*%REC*	1	4/21/2010 08:22 PM
Surr: 2-Fluorobiphenyl	*84.3*		*48-120*	*%REC*	1	4/21/2010 08:22 PM
Surr: 2-Fluorophenol	*68.8*		*20-120*	*%REC*	1	4/21/2010 08:22 PM
Surr: 4-Terphenyl-d14	*85.7*		*51-135*	*%REC*	1	4/21/2010 08:22 PM
Surr: Nitrobenzene-d5	*73.8*		*41-120*	*%REC*	1	4/21/2010 08:22 PM
Surr: Phenol-d6	*69.8*		*20-120*	*%REC*	1	4/21/2010 08:22 PM
TCLP VOLATILES			**SW1311/8260B**		Prep Date: **4/16/2010**	Analyst: **HLBW**
1,1-Dichloroethene	ND		100	µg/L	20	4/30/2010 08:54 AM
1,2-Dichloroethane	ND		100	µg/L	20	4/30/2010 08:54 AM
1,4-Dichlorobenzene	ND		100	µg/L	20	4/30/2010 08:54 AM
2-Butanone	ND		200	µg/L	20	4/30/2010 08:54 AM
Benzene	ND		100	µg/L	20	4/30/2010 08:54 AM
Carbon tetrachloride	ND		100	µg/L	20	4/30/2010 08:54 AM
Chlorobenzene	ND		100	µg/L	20	4/30/2010 08:54 AM
Chloroform	ND		100	µg/L	20	4/30/2010 08:54 AM
Tetrachloroethene	ND		100	µg/L	20	4/30/2010 08:54 AM
Trichloroethene	ND		100	µg/L	20	4/30/2010 08:54 AM

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

ALS Laboratory Group

Date: *03-May-10*

Client: Navajo Refining Company
Project: Disposal
Sample ID: T-115-Esc Soil
Collection Date: 4/14/2010 02:53 PM

Work Order: 1004372
Lab ID: 1004372-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Vinyl chloride	ND		100	µg/L	20	4/30/2010 08:54 AM
Surr: 1,2-Dichloroethane-d4	*96.8*		*70-125*	*%REC*	20	4/30/2010 08:54 AM
Surr: 4-Bromofluorobenzene	*98.7*		*72-125*	*%REC*	20	4/30/2010 08:54 AM
Surr: Dibromofluoromethane	*95.9*		*71-125*	*%REC*	20	4/30/2010 08:54 AM
Surr: Toluene-d8	*99.5*		*75-125*	*%REC*	20	4/30/2010 08:54 AM
REACTIVE CYANIDE			**SW-846**			Analyst: **HN**
Reactive Cyanide	ND		40.0	mg/Kg	1	4/20/2010
REACTIVE SULFIDE			**SW-846**			Analyst: **HN**
Reactive Sulfide	ND		40.0	mg/Kg	1	4/20/2010
IGNITABILITY			**SW1030**			Analyst: **JLC**
Ignitability, Solid	**Negative**			**no unit**	1	4/21/2010 04:50 PM
PH			**SW9045B**			Analyst: **JLC**
pH	**7.88**		**0.100**	**pH Units**	1	4/19/2010 04:30 AM

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

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

Chain of Custody Form

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 #: 10U312

Customer Information		Project Information		Parameter/Method Request for Analysis
Purchase Order		Project Name	~~ABT Inlet/Outlet~~ Disposal	A ~~TRN (330)~~ TCLP VOAS
Work Order		Project Number		B ~~BOD~~ TCLP semiVOAS
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C ~~COD (410.1)~~ TCLP Metals
Send Report To	Aaron Strange	Invoice Attn	Aaron Strange	D ~~Phenolics (420)~~ RCI
Address	~~501 E. Main~~ P.O. Box 159	Address	~~501 E. Main~~ P.O. Box 159	E
				F
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G
Phone	575 ~~(505)~~ 748-3311	Phone	575 ~~(505)~~ 748-3311	H
Fax	575 ~~(505)~~ 746-5421	Fax	~~(505)~~ 746-5421	I
e-Mail Address		e-Mail Address		J

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	T-115-Exc Soil	4-14-10	1453	S	N	1	X	X	X	X							
2	Temp Blank																
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

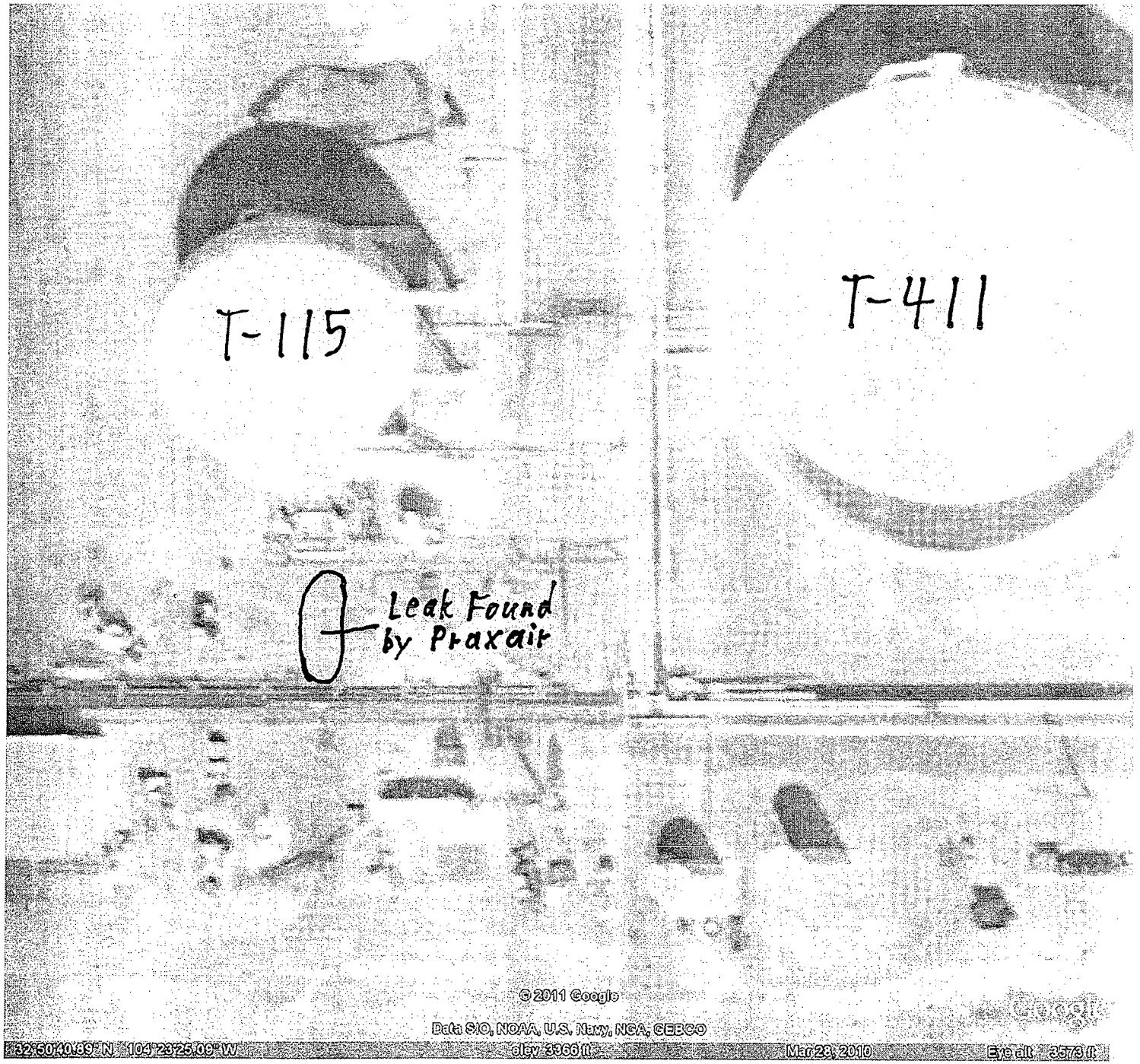
Sampler(s) Please Print & Sign: Aaron Strange | Shipment Method: Fed Ex | Required Turnaround Time: (Check Box) ☒ Std 10 WK Days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour ☐ Other | Results Due Date:

Relinquished by: Aaron Strange	Date: 4-14-10	Time: 1615	Received by:	Notes: 10 Day TAT.	
Relinquished by:	Date:	Time:	Received by (Laboratory): AT 4/15/10 09:15	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.
3. The Chain of Custody is a legal document. All information must be completed accurately.


T-115
T-411
Leak Found by Praxair
© 2011 Google
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
32°50'40.89" N 104°23'25.06" W
elev 3366 ft
Mar 28, 2010
Eye alt 3573 ft

NON-HAZARDOUS WASTE MANIFEST

48287

PART I: Generator Navajo Refining Co. LLC
Address PO Box 159
City/State Artesia, NM 88211-0159

(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia Permit No. NMD043918817

Property Name 124 Tank
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	
DESCRIPTION / NOTES					
12 Yds Cont. Soil					

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Carrie Hernandez
Signature of Generator's Authorized Agent

Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers
Address
City/State Artesia N. M.

Telephone No.

3
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

4-26-10
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.** **(575) 393-1079**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388** **www.crihobbs.com**

Telephone No.

E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

4/26/10
Date and Time Received

TCP - #7520-A

NON-HAZARDOUS WASTE MANIFEST

48282

PART I: Generator Navajo Refining Co. LLC

Address PO Box 159

City/State Artesia, NM 88211-0159

(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia Permit No. NMD048918817

Property Name _____
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	

DESCRIPTION / NOTES
Cont Soil 12 Yds
Tank 124

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

10-22-10
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers

Address _____

City/State _____

Telephone No.

Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

10-22-10
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**

Address **P.O. Box 388**

City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

10-22-10
Date and Time Received

TCP - #7520-A

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Plant	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude ~N32°45'54.4" **Longitude** ~W104°14'17.4"

NATURE OF RELEASE

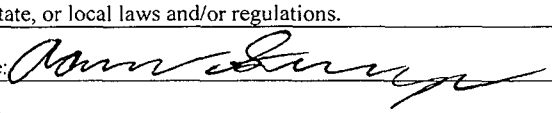
Type of Release: Spill of Treated Waste Water (by Aggressive Bio. Treatment)	Volume of Release: Unknown	Volume Recovered: ~0 barrels
Source of Release: Effluent line leak between the Chukka and Gaines Injection Wells.	Date and Hour of Occurrence: 04/15/2010 Unknown	Date and Hour of Discovery: 04/15/2010 ~ 09:40
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Spoke with Carl Chavez from OCD in Santa Fe (505-476-3490), left a voicemail with OCD District Supervisor (575-748-1283 extension 104). Spoke with Art Vollmer from the NMED Haz Waste Bureau (505-476-6045.	
By Whom? Aaron Strange	Date and Hour: 04/15/2010 at ~10:02 to Carl Chavez (OCD Santa Fe), 04/15/2010 at ~10:07 to the OCD Artesia office, and 04/15/2010 at ~10:10 to NMED Haz Waste Bureau.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 04/15/2010 at ~ 09:40 a leak was found between the Chukka and Gaines Injection Wells. The Effluent line was blocked in at the Waste Water Treater (inside the refinery) to stop the leak and repair the line. The leak was excavated and the line was clamped and is holding.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the effluent line between the Chukka and Gaines Injection Wells at ~ N32°45'54.4", W104°14'17.4". The leak was excavated and the line was clamped and is holding The leak did not stain the soil. Bottom Hole samples were collected and tested for TPH. This same location was also tested for BTEX, Metals, and Anions after the leak that occurred on 09/27/2010. This leak was just a few feet from the leaks that occurred on 02/20/2010 and 09/27/2010.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 11/10/2010 Phone: 575-703-5057		

District I
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Energy Minerals and Natural Resources

Oil Conservation Division
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Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Plant	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude ~N32°45'54.4" **Longitude** ~W104°14'17.4"

NATURE OF RELEASE

Type of Release: Spill of Treated Waster Water (by Aggressive Bio. Treatment)	Volume of Release: Unknown	Volume Recovered: ~0 barrels
Source of Release: Effluent line leak between the Chukka and Gaines Injection Wells.	Date and Hour of Occurrence: 04/15/2010 Unknown	Date and Hour of Discovery: 04/15/2010 ~ 09:40
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Spoke with Carl Chavez from OCD in Santa Fe (505-476-3490), left a voicemail with OCD District Supervisor (575-748-1283 extension 104). Spoke with Art Vollmer from the NMED Haz Waste Bureau (505-476-6045.	
By Whom? Aaron Strange	Date and Hour: 04/15/2010 at ~10:02 to Carl Chavez (OCD Santa Fe), 04/15/2010 at ~10:07 to the OCD Artesia office, and 04/15/2010 at ~10:10 to NMED Haz Waste Bureau.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 04/15/2010 at ~ 09:40 a leak was found between the Chukka and Gaines Injection Wells. The Effluent line was blocked in at the Waste Water Treater (inside the refinery) to stop the leak and repair the line. The leak was excavated and the line was clamped and is holding.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the effluent line between the Chukka and Gaines Injection Wells at ~ N32°45'54.4", W104°14'17.4". The leak was excavated and the line was clamped and is holding The leak did not stain the soil. Bottom Hole samples were collected and tested for TPH. This leak was just a few feet from the leak that occurred on 2/20/2010.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 10/08/2010 Phone: 575-703-5057		

ALS Laboratory Group

Date: 21-Jul-10

Client: Navajo Refining Company
Project: Bottom Hole
Work Order: **1007504**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1007504-01	WW Effluent #1	Soil		7/15/2010 13:42	7/16/2010 08:40	☐
1007504-02	WW Effluent #2	Soil		7/15/2010 13:46	7/16/2010 08:40	☐
1007504-03	WW Effluent #3	Soil		7/15/2010 13:53	7/16/2010 08:40	☐

ALS Laboratory Group

Date: *21-Jul-10*

Client: Navajo Refining Company
Project: Bottom Hole
Work Order: 1007504
Sample ID: WW Effluent #1
Lab ID: 1007504-01
Collection Date: 7/15/2010 01:42 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **7/16/2010**	Analyst: **SE**
nC6 to nC12	ND		50	mg/Kg	1	7/18/2010 02:50 AM
>nC12 to nC28	ND		50	mg/Kg	1	7/18/2010 02:50 AM
>nC28 to nC35	ND		50	mg/Kg	1	7/18/2010 02:50 AM
Total Petroleum Hydrocarbon	ND		50	mg/Kg	1	7/18/2010 02:50 AM
Surr: 2-Fluorobiphenyl	*117*		*70-130*	*%REC*	1	7/18/2010 02:50 AM
Surr: Trifluoromethyl benzene	*107*		*70-130*	*%REC*	1	7/18/2010 02:50 AM

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

ALS Laboratory Group

Date: *21-Jul-10*

Client: Navajo Refining Company
Project: Bottom Hole
Work Order: 1007504
Sample ID: WW Effluent #2
Lab ID: 1007504-02
Collection Date: 7/15/2010 01:46 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **7/16/2010**	Analyst: **SE**
nC6 to nC12	ND		49	mg/Kg	1	7/18/2010 04:53 AM
>nC12 to nC28	ND		49	mg/Kg	1	7/18/2010 04:53 AM
>nC28 to nC35	ND		49	mg/Kg	1	7/18/2010 04:53 AM
Total Petroleum Hydrocarbon	ND		49	mg/Kg	1	7/18/2010 04:53 AM
Surr: 2-Fluorobiphenyl	*114*		*70-130*	*%REC*	1	7/18/2010 04:53 AM
Surr: Trifluoromethyl benzene	*115*		*70-130*	*%REC*	1	7/18/2010 04:53 AM

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

ALS Laboratory Group

Date: *21-Jul-10*

Client: Navajo Refining Company
Project: Bottom Hole
Work Order: 1007504
Sample ID: WW Effluent #3
Lab ID: 1007504-03
Collection Date: 7/15/2010 01:53 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **7/16/2010**	Analyst: **SE**
nC6 to nC12	ND		50	mg/Kg	1	7/18/2010 05:24 AM
>nC12 to nC28	ND		50	mg/Kg	1	7/18/2010 05:24 AM
>nC28 to nC35	ND		50	mg/Kg	1	7/18/2010 05:24 AM
Total Petroleum Hydrocarbon	ND		50	mg/Kg	1	7/18/2010 05:24 AM
Surr: 2-Fluorobiphenyl	*124*		*70-130*	*%REC*	1	7/18/2010 05:24 AM
Surr: Trifluoromethyl benzene	*113*		*70-130*	*%REC*	1	7/18/2010 05:24 AM

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

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

Chain of Custody Form

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 #: 105501

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Bottom Hole	A	TPH
Work Order		Project Number		B	
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	
Send Report To	Aaron Strange	Invoice Attn	Aaron Strange	D	
Address	P.O. Box 159	Address	P.O. Box 159	E	
				F	
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	
Phone	575 748-3311	Phone	(505) 748-3311	H	
Fax	575 746-5451	Fax	(505) 746-5421	I	
e-Mail Address	[redacted]	e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WW Effluent #1	7-15-10	1342	S	NO	1	X										
2	WW Effluent #2	↓	1346	S	↓	1	X										
3	WW Effluent #3	↓	1353	S	↓	1	X										
4	Temp Blank																
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Aaron Strange | Shipment Method: FedEx | Required Turnaround Time: (Check Box) ☑ Std 10 WK Days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour ☐ Other | Results Due Date:

Relinquished by: Aaron Strange	Date: 7-15-10	Time: 1615	Received by:	Notes:	
Relinquished by:	Date:	Time:	Received by (Laboratory): 7/16/10 0810	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.
3. The Chain of Custody is a legal document. All information must be completed accurately.

District I
1625 N. French Dr., Hobbs, NM 88240
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1301 W. Grand Avenue, Artesia, NM 88210
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1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Plant	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude ~N32°46'03.8" **Longitude** ~W104°13'44.4"

NATURE OF RELEASE

Type of Release: Spill of Treated Waste Water (by Aggressive Bio. Treatment)	Volume of Release: Unknown	Volume Recovered: ~0 barrels
Source of Release: Effluent line leak between the Chukka and Mewborne Injection Wells.	Date and Hour of Occurrence: 05/03/2010 Unknown	Date and Hour of Discovery: 05/03/2010 ~ 15:00
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Notified Carl Chavez from OCD in Santa Fe (505-476-3490), OCD Artesia office (575-748-1283), and Hope Monzeglio with the NMED Haz Waste Bureau (505-476-6045).	
By Whom? Darrell Moore	Date and Hour: 05/032010 at ~18:06 to Carl Chavez (OCD Santa Fe), 05/03/2010 at ~18:10 to the OCD Artesia office, and 05/03/2010 at ~18:08 to NMED Haz Waste Bureau.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 04/15/2010 at ~ 09:40 a leak was found between the Chukka and Mewborne Injection Wells. The Effluent line was blocked in at the Waste Water Treater (inside the refinery) to stop the leak and repair the line. The leak was excavated and the line was clamped and is holding.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the effluent line between the Chukka and Mewborne Injection Wells at ~ N32°46'03.8", W104°13'44.4". The leak was excavated and the line was clamped and is holding. The leak did not stain the soil. Bottom Hole samples have be collected and tested for BTEX, Metals, and Anions.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 11/10/2010 Phone: 575-703-5057		

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Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Plant	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude ~N32°46'03.8" **Longitude** ~W104°13'44.4"

NATURE OF RELEASE

Type of Release: Spill of Treated Waster Water (by Aggressive Bio. Treatment)	Volume of Release: Unknown	Volume Recovered: ~0 barrels
Source of Release: Effluent line leak between the Chukka and Mewborne Injection Wells.	Date and Hour of Occurrence: 05/03/2010 Unknown	Date and Hour of Discovery: 05/03/2010 ~ 15:00
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Notified Carl Chavez from OCD in Santa Fe (505-476-3490), OCD Artesia office (575-748-1283), and Hope Monzeglio with the NMED Haz Waste Bureau (505-476-6045).	
By Whom? Darrell Moore	Date and Hour: 05/032010 at ~18:06 to Carl Chavez (OCD Santa Fe), 05/03/2010 at ~18:10 to the OCD Artesia office, and 05/03/2010 at ~18:08 to NMED Haz Waste Bureau.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 04/15/2010 at ~ 09:40 a leak was found between the Chukka and Mewborne Injection Wells. The Effluent line was blocked in at the Waste Water Treater (inside the refinery) to stop the leak and repair the line. The leak was excavated and the line was clamped and is holding.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the effluent line between the Chukka and Mewborne Injection Wells at ~ N32°46'03.8", W104°13'44.4". The leak was excavated and the line was clamped and is holding. The leak did not stain the soil. Bottom Hole samples have be collected and are being tested for BTEX, Metals, and Anions.

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Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 10/08/2010 Phone: 575-703-5057		

ALS Laboratory Group

Date: 21-Jul-10

Client: Navajo Refining Company
Project: Bottom Hole
Work Order: **1007504**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1007504-01	WW Effluent #1	Soil		7/15/2010 13:42	7/16/2010 08:40	☐
1007504-02	WW Effluent #2	Soil		7/15/2010 13:46	7/16/2010 08:40	☐
1007504-03	WW Effluent #3	Soil		7/15/2010 13:53	7/16/2010 08:40	☐

ALS Laboratory Group

Date: *21-Jul-10*

Client: Navajo Refining Company
Project: Bottom Hole
Sample ID: WW Effluent #1
Collection Date: 7/15/2010 01:42 PM

Work Order: 1007504
Lab ID: 1007504-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **7/16/2010**	Analyst: **SE**
nC6 to nC12	ND		50	mg/Kg	1	7/18/2010 02:50 AM
>nC12 to nC28	ND		50	mg/Kg	1	7/18/2010 02:50 AM
>nC28 to nC35	ND		50	mg/Kg	1	7/18/2010 02:50 AM
Total Petroleum Hydrocarbon	ND		50	mg/Kg	1	7/18/2010 02:50 AM
Surr: 2-Fluorobiphenyl	*117*		*70-130*	*%REC*	1	7/18/2010 02:50 AM
Surr: Trifluoromethyl benzene	*107*		*70-130*	*%REC*	1	7/18/2010 02:50 AM

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

ALS Laboratory Group

Date: *21-Jul-10*

Client: Navajo Refining Company
Project: Bottom Hole
Sample ID: WW Effluent #2
Collection Date: 7/15/2010 01:46 PM

Work Order: 1007504
Lab ID: 1007504-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **7/16/2010**	Analyst: **SE**
nC6 to nC12	ND		49	mg/Kg	1	7/18/2010 04:53 AM
>nC12 to nC28	ND		49	mg/Kg	1	7/18/2010 04:53 AM
>nC28 to nC35	ND		49	mg/Kg	1	7/18/2010 04:53 AM
Total Petroleum Hydrocarbon	ND		49	mg/Kg	1	7/18/2010 04:53 AM
Surr: 2-Fluorobiphenyl	*114*		*70-130*	*%REC*	1	7/18/2010 04:53 AM
Surr: Trifluoromethyl benzene	*115*		*70-130*	*%REC*	1	7/18/2010 04:53 AM

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

ALS Laboratory Group

Date: *21-Jul-10*

Client: Navajo Refining Company
Project: Bottom Hole
Sample ID: WW Effluent #3
Collection Date: 7/15/2010 01:53 PM

Work Order: 1007504
Lab ID: 1007504-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **7/16/2010**	Analyst: **SE**
nC6 to nC12	ND		50	mg/Kg	1	7/18/2010 05:24 AM
>nC12 to nC28	ND		50	mg/Kg	1	7/18/2010 05:24 AM
>nC28 to nC35	ND		50	mg/Kg	1	7/18/2010 05:24 AM
Total Petroleum Hydrocarbon	ND		50	mg/Kg	1	7/18/2010 05:24 AM
Surr: 2-Fluorobiphenyl	*124*		*70-130*	*%REC*	1	7/18/2010 05:24 AM
Surr: Trifluoromethyl benzene	*113*		*70-130*	*%REC*	1	7/18/2010 05:24 AM

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

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

Chain of Custody Form

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 #: 1005014

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Bottom Hole	A	TPH
Work Order		Project Number		B	
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	
Send Report To	Aaron Strange	Invoice Attn	Aaron Strange	D	
Address	P.O. Box 159	Address	P.O. Box 159	E	
				F	
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	
Phone	575 748-3311	Phone	(505) 748-3311	H	
Fax	575 746-5421 5451	Fax	(505) 746-5421	I	
e-Mail Address	[illegible]@[illegible].NM.com	e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WW Effluent #1	7-15-10	1342	S	NO	1	X										
2	WW Effluent #2	↓	1346	S	↓	1	X										
3	WW Effluent #3	↓	1353	S	↓	1	X										
4	Temp Blank																
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Aaron Strange

Shipment Method: FedEx

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

Results Due Date:

Relinquished by: Aaron Strange	Date: 7-15-10	Time: 1615	Received by:	Notes:	
Relinquished by:	Date:	Time:	Received by (Laboratory): 7/16/10 0810	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.
3. The Chain of Custody is a legal document. All information must be completed accurately.

ALS Environmental

Date: *18-Oct-10*

Client: Navajo Refining Company
Project: WW Effluent
Sample ID: Leak from 5-3-10
Collection Date: 10/7/2010 01:34 PM

Work Order: 1010346
Lab ID: 1010346-06
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			**SW8021B**			Analyst: **IGF**
Benzene	ND		0.0010	mg/Kg	1	10/12/2010 03:05 PM
Toluene	ND		0.0010	mg/Kg	1	10/12/2010 03:05 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	10/12/2010 03:05 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	10/12/2010 03:05 PM
Surr: 4-Bromofluorobenzene	*94.9*		*75-131*	*%REC*	1	10/12/2010 03:05 PM
Surr: Trifluorotoluene	*92.1*		*73-130*	*%REC*	1	10/12/2010 03:05 PM
MERCURY			**SW7471A**		Prep Date: **10/14/2010**	Analyst: **JCJ**
Mercury	**9.44**		**3.46**	**µg/Kg**	1	10/14/2010 03:52 PM
METALS			**SW6020**		Prep Date: **10/13/2010**	Analyst: **SKS**
Aluminum	**10,600**		**99.0**	**mg/Kg**	100	10/14/2010 10:04 PM
Antimony	ND		0.495	mg/Kg	1	10/14/2010 07:12 AM
Arsenic	**3.41**		**0.495**	**mg/Kg**	1	10/14/2010 07:12 AM
Barium	**210**		**2.48**	**mg/Kg**	5	10/14/2010 07:48 PM
Beryllium	**0.521**		**0.495**	**mg/Kg**	1	10/14/2010 07:12 AM
Cadmium	ND		0.495	mg/Kg	1	10/14/2010 07:12 AM
Calcium	**76,700**		**4,950**	**mg/Kg**	100	10/14/2010 10:04 PM
Chromium	**7.65**		**0.495**	**mg/Kg**	1	10/14/2010 07:12 AM
Cobalt	**3.57**		**0.495**	**mg/Kg**	1	10/14/2010 07:12 AM
Copper	**7.92**		**0.495**	**mg/Kg**	1	10/14/2010 07:12 AM
Iron	**6,720**		**49.5**	**mg/Kg**	1	10/14/2010 07:12 AM
Lead	**6.74**		**2.48**	**mg/Kg**	5	10/14/2010 07:48 PM
Magnesium	**4,130**		**49.5**	**mg/Kg**	1	10/14/2010 07:12 AM
Manganese	**178**		**0.495**	**mg/Kg**	1	10/14/2010 07:12 AM
Nickel	**7.72**		**0.495**	**mg/Kg**	1	10/14/2010 07:12 AM
Potassium	**2,730**		**49.5**	**mg/Kg**	1	10/14/2010 07:12 AM
Selenium	**1.73**		**0.495**	**mg/Kg**	1	10/14/2010 07:12 AM
Silver	ND		0.495	mg/Kg	1	10/14/2010 07:12 AM
Sodium	**93.6**		**49.5**	**mg/Kg**	1	10/14/2010 07:12 AM
Strontium	**79.6**		**0.495**	**mg/Kg**	1	10/14/2010 07:12 AM
Thallium	ND		2.48	mg/Kg	5	10/14/2010 07:48 PM
Vanadium	**12.5**		**0.495**	**mg/Kg**	1	10/14/2010 07:12 AM
Zinc	**35.1**		**0.495**	**mg/Kg**	1	10/14/2010 07:12 AM
ANIONS			**E300**		Prep Date: **10/13/2010**	Analyst: **DM**
Chloride	**6.93**		**4.99**	**mg/Kg**	1	10/14/2010 03:06 PM
Sulfate	**30.6**		**4.99**	**mg/Kg**	1	10/14/2010 03:06 PM
Surr: Selenate (surr)	*109*		*85-115*	*%REC*	1	10/14/2010 03:06 PM

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

ALS Environmental

Date: *18-Oct-10*

Client: Navajo Refining Company
Project: WW Effluent
Sample ID: Background N32 45' 54.3"-W104 14' 13.0"
Collection Date: 10/7/2010 01:40 PM

Work Order: 1010346
Lab ID: 1010346-07
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			**SW8021B**			Analyst: **IGF**
Benzene	ND		0.0010	mg/Kg	1	10/12/2010 04:00 PM
Toluene	ND		0.0010	mg/Kg	1	10/12/2010 04:00 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	10/12/2010 04:00 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	10/12/2010 04:00 PM
Surr: 4-Bromofluorobenzene	*96.3*		*75-131*	*%REC*	1	10/12/2010 04:00 PM
Surr: Trifluorotoluene	*93.4*		*73-130*	*%REC*	1	10/12/2010 04:00 PM
MERCURY			**SW7471A**		Prep Date: **10/14/2010**	Analyst: **JCJ**
Mercury	**11.7**		**3.55**	**µg/Kg**	1	10/14/2010 03:54 PM
METALS			**SW6020**		Prep Date: **10/13/2010**	Analyst: **SKS**
Aluminum	**7,760**		**94.3**	**mg/Kg**	100	10/14/2010 10:22 PM
Antimony	ND		0.472	mg/Kg	1	10/14/2010 07:18 AM
Arsenic	**2.40**		**0.472**	**mg/Kg**	1	10/14/2010 07:18 AM
Barium	**70.3**		**0.472**	**mg/Kg**	1	10/14/2010 07:18 AM
Beryllium	ND		0.472	mg/Kg	1	10/14/2010 07:18 AM
Cadmium	ND		0.472	mg/Kg	1	10/14/2010 07:18 AM
Calcium	**39,100**		**4,720**	**mg/Kg**	100	10/14/2010 10:22 PM
Chromium	**6.82**		**0.472**	**mg/Kg**	1	10/14/2010 07:18 AM
Cobalt	**2.61**		**0.472**	**mg/Kg**	1	10/14/2010 07:18 AM
Copper	**6.24**		**0.472**	**mg/Kg**	1	10/14/2010 07:18 AM
Iron	**5,520**		**47.2**	**mg/Kg**	1	10/14/2010 07:18 AM
Lead	**6.07**		**0.472**	**mg/Kg**	1	10/14/2010 07:18 AM
Magnesium	**7,550**		**47.2**	**mg/Kg**	1	10/14/2010 07:18 AM
Manganese	**149**		**0.472**	**mg/Kg**	1	10/14/2010 07:18 AM
Nickel	**5.84**		**0.472**	**mg/Kg**	1	10/14/2010 07:18 AM
Potassium	**1,340**		**47.2**	**mg/Kg**	1	10/14/2010 07:18 AM
Selenium	ND		0.472	mg/Kg	1	10/14/2010 07:18 AM
Silver	ND		0.472	mg/Kg	1	10/14/2010 07:18 AM
Sodium	ND		47.2	mg/Kg	1	10/14/2010 07:18 AM
Strontium	**107**		**0.472**	**mg/Kg**	1	10/14/2010 07:18 AM
Thallium	ND		0.472	mg/Kg	1	10/14/2010 07:18 AM
Vanadium	**10.7**		**0.472**	**mg/Kg**	1	10/14/2010 07:18 AM
Zinc	**18.4**		**0.472**	**mg/Kg**	1	10/14/2010 07:18 AM
ANIONS			**E300**		Prep Date: **10/13/2010**	Analyst: **DM**
Chloride	ND		4.96	mg/Kg	1	10/14/2010 03:27 PM
Sulfate	**7,510**		**49.6**	**mg/Kg**	10	10/14/2010 05:37 PM
Surr: Selenate (surr)	*108*		*85-115*	*%REC*	10	10/14/2010 05:37 PM
Surr: Selenate (surr)	*109*		*85-115*	*%REC*	1	10/14/2010 03:27 PM

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

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

Chain of Custody Form

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 #: 1010396

Customer Information		Project Information		Parameter/Method Request for Analysis
Purchase Order		Project Name	WW Effluent	A BTEX
Work Order		Project Number		B Metals (totals)
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C Anions (chlorides-sulphate)
Send Report To	Aaron Strange	Invoice Attn	Aaron Strange	D
Address	P.O. Box 159	Address	P.O. Box 159	E
				F
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G
Phone	~~(505)~~ 575 748-3311	Phone	~~(505)~~ 748-3311	H
Fax	~~(505) 746-5421~~ 575 5451	Fax	~~(505) 746-5421~~	I
e-Mail Address	~~dgboyer@SESI-NM.com~~	e-Mail Address		J

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	Leak from 9-27-10 #1	10-7-10	12:30	S	NO	2	X	X	X								
2	Leak from 9-27-10 #2		12:34				X	X	X								
3	Leak from 9-27-10 #3		12:49				X	X	X								
4	Leak from 9-27-10 #4 N 32°46'05.6" W 104°13'42.0"		13:02				X	X	X								
5	Back ground		13:10				X	X	X								
6	Leak from 5-3-10 N 32°45'54.3" W 104°14'13.0"		13:34				X	X	X								
7	Back ground		13:40				X	X	X								
8	Temp Blank																
9	Trip Blank																
10																	

Sampler(s) Please Print & Sign: Aaron Strange

Shipment Method: Fed Ex

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

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Notes:
Aaron Strange	10-7-10	16:15		
Relinquished by:	Date:	Time:	Received by (Laboratory): 10/8/10 09:00	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 / EDD _____

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_3$ 7-Other 8-4°C 9-5035

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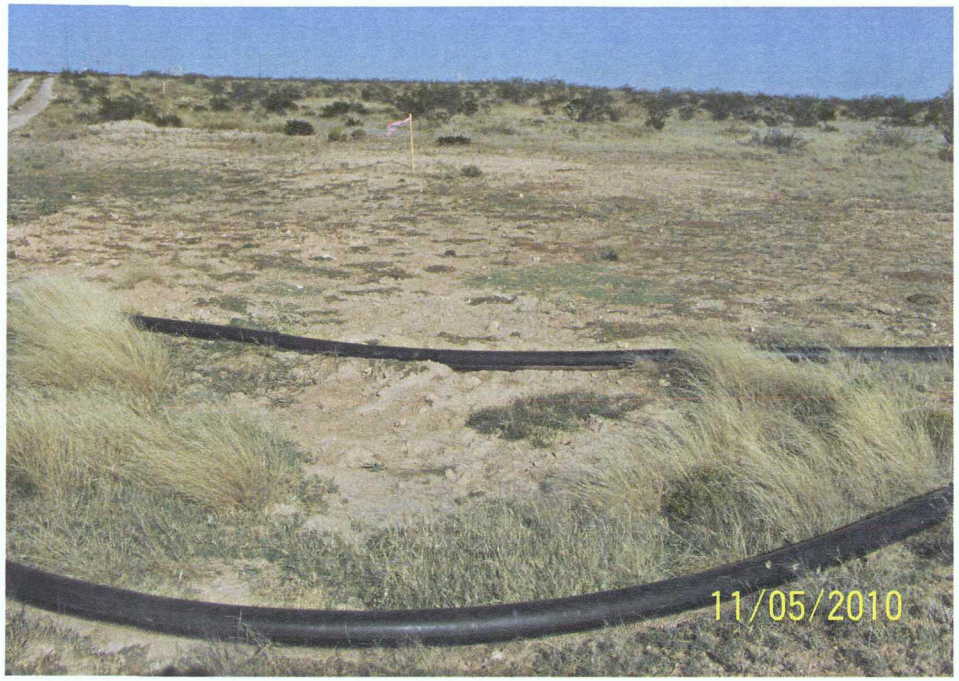
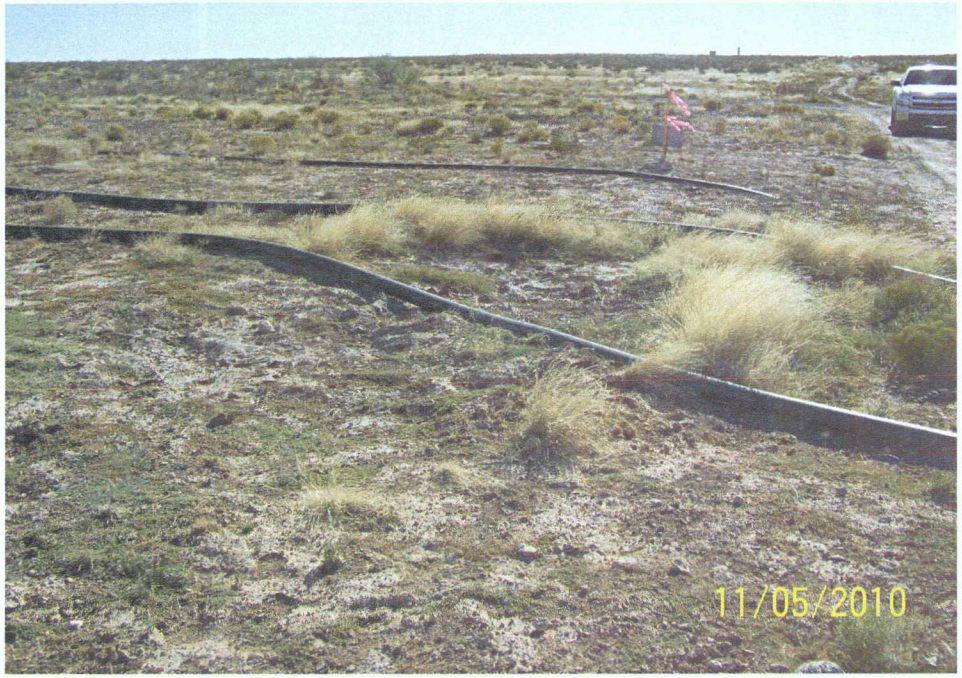
2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.


11/05/2010


11/05/2010


WARNING
EFFLUENT
PIPELINE
NAVAJO REFINING COMPANY LLC
Before Excavating or in Case of Emergency
CALL
ARTESIA, NM
11/05/2010


11/05/2010

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Spill (Gas Oil)	Volume of Release: ~ 5 barrels	Volume Recovered: ~ 0 barrels
Source of Release: Tank T-433	Date and Hour of Occurrence: 07/06/2010 ~ 11:50	Date and Hour of Discovery: 07/06/2010 ~ 11:50
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left voicemail with Carl Chavez from Santa Fe OCD (575-476-3490). Left voicemail with Artesia OCD (575-748-1283 ext 104). Left voicemail with NMED Haz Waste Bureau (505-476-6000).	
By Whom? Aaron Strange	Date and Hour: 07/07/2010 at ~09:08 to Carl Chavez (Santa Fe OCD), 07/07/2010 at ~09:10 to Artesia OCD), and 07/07/2010 at ~09:14 to NMED.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 07/06/10 at ~ 11:50 an operator discovered Gas Oil leaking out of the north west side of Tank T-433. The source of the leak is unknown at this time and Navajo is working diligently to deinventory the tank into another Gas Oil Tank (T-438). Once the tank is empty and clean, Navajo will inspect the tank to determine the source of the leak and determine what repairs are needed.

Describe Area Affected and Cleanup Action Taken.*
The area affected was inside the tank dike of Tank T-433. Approximately 5 barrels of Gas Oil has leaked onto the ground but remains within the tank dike. At this time it is too muddy to get equipment to the area of the spill for clean up due to recent rain storms. Navajo will remove the contaminated soil once equipment can get inside the tank dike. The contaminated soil will be disposed of per analytical results. Bottom Hole samples will be collected after it has been cleaned up.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 07/09/2010 Phone: 575-703-5057		

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Spill (Gas Oil)	Volume of Release: ~ 5 barrels	Volume Recovered: ~ 0 barrels
Source of Release: Tank T-433	Date and Hour of Occurrence: 07/06/2010 ~ 11:50	Date and Hour of Discovery: 07/06/2010 ~ 11:50
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left voicemail with Carl Chavez from Santa Fe OCD (575-476-3490). Left voicemail with Artesia OCD (575-748-1283 ext 104). Left voicemail with NMED Haz Waste Bureau (505-476-6000).	
By Whom? Aaron Strange	Date and Hour: 07/07/2010 at ~09:08 to Carl Chavez (Santa Fe OCD), 07/07/2010 at ~09:10 to Artesia OCD), and 07/07/2010 at ~09:14 to NMED.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 07/06/10 at ~ 11:50 an operator discovered Gas Oil leaking out of the north west side of Tank T-433. The source of the leak is unknown at this time and Navajo is working diligently to deinventory the tank into another Gas Oil Tank (T-438). Once the tank is empty and clean, Navajo will inspect the tank to determine the source of the leak and determine what repairs are needed.

Describe Area Affected and Cleanup Action Taken.*
The area affected was inside the tank dike of Tank T-433. Approximately 5 barrels of Gas Oil has leaked onto the ground but remains within the tank dike. At this time it is too muddy to get equipment to the area of the spill for clean up due to recent rain storms. Navajo will remove the contaminated soil once equipment can get inside the tank dike. The contaminated soil will be disposed of per analytical results. Bottom Hole samples will be collected after it has been cleaned up.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 07/09/2010 Phone: 575-703-5057		

ALS Laboratory Group

Date: *23-Jul-10*

Client: Navajo Refining Company
Project: T-433
Sample ID: T-433 Leak/Soil
Collection Date: 7/13/2010 03:04 PM

Work Order: 1007422
Lab ID: 1007422-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY			**SW7470**		Prep Date: **7/19/2010**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	7/19/2010 05:11 PM
TCLP METALS			**SW1311/6020**		Prep Date: **7/19/2010**	Analyst: **SKS**
Arsenic	ND		0.0500	mg/L	10	7/19/2010 06:50 PM
Barium	**0.494**		**0.0500**	**mg/L**	10	7/19/2010 06:50 PM
Cadmium	ND		0.0500	mg/L	10	7/19/2010 06:50 PM
Chromium	ND		0.0500	mg/L	10	7/19/2010 06:50 PM
Lead	ND		0.0500	mg/L	10	7/19/2010 06:50 PM
Selenium	ND		0.0500	mg/L	10	7/19/2010 06:50 PM
Silver	ND		0.0500	mg/L	10	7/19/2010 06:50 PM
TCLP SEMIVOLATILES			**SW1311/8270**		Prep Date: **7/20/2010**	Analyst: **KMB**
2,4,5-Trichlorophenol	ND		5.0	µg/L	1	7/21/2010 11:13 PM
2,4,6-Trichlorophenol	ND		5.0	µg/L	1	7/21/2010 11:13 PM
2,4-Dinitrotoluene	ND		5.0	µg/L	1	7/21/2010 11:13 PM
Cresols, Total	ND		15	µg/L	1	7/21/2010 11:13 PM
Hexachlorobenzene	ND		5.0	µg/L	1	7/21/2010 11:13 PM
Hexachlorobutadiene	ND		5.0	µg/L	1	7/21/2010 11:13 PM
Hexachloroethane	ND		5.0	µg/L	1	7/21/2010 11:13 PM
Nitrobenzene	ND		5.0	µg/L	1	7/21/2010 11:13 PM
Pentachlorophenol	ND		5.0	µg/L	1	7/21/2010 11:13 PM
Pyridine	ND		5.0	µg/L	1	7/21/2010 11:13 PM
Surr: 2,4,6-Tribromophenol	*77.8*		*42-124*	*%REC*	1	7/21/2010 11:13 PM
Surr: 2-Fluorobiphenyl	*68.9*		*48-120*	*%REC*	1	7/21/2010 11:13 PM
Surr: 2-Fluorophenol	*63.4*		*20-120*	*%REC*	1	7/21/2010 11:13 PM
Surr: 4-Terphenyl-d14	*72.9*		*51-135*	*%REC*	1	7/21/2010 11:13 PM
Surr: Nitrobenzene-d5	*68.1*		*41-120*	*%REC*	1	7/21/2010 11:13 PM
Surr: Phenol-d6	*70.3*		*20-120*	*%REC*	1	7/21/2010 11:13 PM
TCLP VOLATILES			**SW1311/8260B**		Prep Date: **7/16/2010**	Analyst: **PC**
1,1-Dichloroethene	ND		100	µg/L	20	7/22/2010 06:38 PM
1,2-Dichloroethane	ND		100	µg/L	20	7/22/2010 06:38 PM
1,4-Dichlorobenzene	ND		100	µg/L	20	7/22/2010 06:38 PM
2-Butanone	ND		200	µg/L	20	7/22/2010 06:38 PM
Benzene	ND		100	µg/L	20	7/22/2010 06:38 PM
Carbon tetrachloride	ND		100	µg/L	20	7/22/2010 06:38 PM
Chlorobenzene	ND		100	µg/L	20	7/22/2010 06:38 PM
Chloroform	ND		100	µg/L	20	7/22/2010 06:38 PM
Tetrachloroethene	ND		100	µg/L	20	7/22/2010 06:38 PM
Trichloroethene	ND		100	µg/L	20	7/22/2010 06:38 PM

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

Client: Navajo Refining Company
Project: T-433
Sample ID: T-433 Leak/Soil
Collection Date: 7/13/2010 03:04 PM

Work Order: 1007422
Lab ID: 1007422-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Vinyl chloride	ND		100	µg/L	20	7/22/2010 06:38 PM
Surr: 1,2-Dichloroethane-d4	*105*		*70-125*	*%REC*	20	7/22/2010 06:38 PM
Surr: 4-Bromofluorobenzene	*107*		*72-125*	*%REC*	20	7/22/2010 06:38 PM
Surr: Dibromofluoromethane	*110*		*71-125*	*%REC*	20	7/22/2010 06:38 PM
Surr: Toluene-d8	*118*		*75-125*	*%REC*	20	7/22/2010 06:38 PM
REACTIVE CYANIDE			**SW-846**			Analyst: **HN**
Reactive Cyanide	ND		40.0	mg/Kg	1	7/19/2010 10:30 AM
REACTIVE SULFIDE			**SW-846**			Analyst: **HN**
Reactive Sulfide	ND		40.0	mg/Kg	1	7/19/2010 10:30 AM
IGNITABILITY			**SW1030**			Analyst: **JLC**
Ignitability, Solid	**Negative**			**no unit**	1	7/15/2010 03:00 PM
PH			**SW9045B**			Analyst: **TDW**
pH	**8.66**		**0.100**	**pH Units**	1	7/20/2010 12:00 PM

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

Client: Navajo Refining Company
Project: T-433
Sample ID: T-433 Bottom/Scal
Collection Date: 7/13/2010 03:09 PM

Work Order: 1007422
Lab ID: 1007422-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY			**SW7470**		Prep Date: **7/19/2010**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	7/19/2010 05:13 PM
TCLP METALS			**SW1311/6020**		Prep Date: **7/19/2010**	Analyst: **SKS**
Arsenic	ND		0.0500	mg/L	10	7/19/2010 06:56 PM
Barium	**0.0552**		**0.0500**	**mg/L**	10	7/19/2010 06:56 PM
Cadmium	ND		0.0500	mg/L	10	7/19/2010 06:56 PM
Chromium	ND		0.0500	mg/L	10	7/19/2010 06:56 PM
Lead	ND		0.0500	mg/L	10	7/19/2010 06:56 PM
Selenium	ND		0.0500	mg/L	10	7/19/2010 06:56 PM
Silver	ND		0.0500	mg/L	10	7/19/2010 06:56 PM
TCLP SEMIVOLATILES			**SW1311/8270**		Prep Date: **7/20/2010**	Analyst: **KMB**
2,4,5-Trichlorophenol	ND		5.0	µg/L	1	7/21/2010 04:53 PM
2,4,6-Trichlorophenol	ND		5.0	µg/L	1	7/21/2010 04:53 PM
2,4-Dinitrotoluene	ND		5.0	µg/L	1	7/21/2010 04:53 PM
Cresols, Total	ND		15	µg/L	1	7/21/2010 04:53 PM
Hexachlorobenzene	ND		5.0	µg/L	1	7/21/2010 04:53 PM
Hexachlorobutadiene	ND		5.0	µg/L	1	7/21/2010 04:53 PM
Hexachloroethane	ND		5.0	µg/L	1	7/21/2010 04:53 PM
Nitrobenzene	ND		5.0	µg/L	1	7/21/2010 04:53 PM
Pentachlorophenol	ND		5.0	µg/L	1	7/21/2010 04:53 PM
Pyridine	ND		5.0	µg/L	1	7/21/2010 04:53 PM
Surr: 2,4,6-Tribromophenol	*64.1*		*42-124*	*%REC*	1	7/21/2010 04:53 PM
Surr: 2-Fluorobiphenyl	*51.6*		*48-120*	*%REC*	1	7/21/2010 04:53 PM
Surr: 2-Fluorophenol	*44.1*		*20-120*	*%REC*	1	7/21/2010 04:53 PM
Surr: 4-Terphenyl-d14	*71.1*		*51-135*	*%REC*	1	7/21/2010 04:53 PM
Surr: Nitrobenzene-d5	*55.3*		*41-120*	*%REC*	1	7/21/2010 04:53 PM
Surr: Phenol-d6	*45.9*		*20-120*	*%REC*	1	7/21/2010 04:53 PM
TCLP VOLATILES			**SW1311/8260B**		Prep Date: **7/16/2010**	Analyst: **PC**
1,1-Dichloroethene	ND		100	µg/L	20	7/22/2010 07:04 PM
1,2-Dichloroethane	ND		100	µg/L	20	7/22/2010 07:04 PM
1,4-Dichlorobenzene	ND		100	µg/L	20	7/22/2010 07:04 PM
2-Butanone	ND		200	µg/L	20	7/22/2010 07:04 PM
Benzene	ND		100	µg/L	20	7/22/2010 07:04 PM
Carbon tetrachloride	ND		100	µg/L	20	7/22/2010 07:04 PM
Chlorobenzene	ND		100	µg/L	20	7/22/2010 07:04 PM
Chloroform	ND		100	µg/L	20	7/22/2010 07:04 PM
Tetrachloroethene	ND		100	µg/L	20	7/22/2010 07:04 PM
Trichloroethene	ND		100	µg/L	20	7/22/2010 07:04 PM

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

ALS Laboratory Group

Date: *23-Jul-10*

Client: Navajo Refining Company
Project: T-433
Work Order: 1007422
Sample ID: T-433 Bottom/Scal
Lab ID: 1007422-02
Collection Date: 7/13/2010 03:09 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Vinyl chloride	ND		100	µg/L	20	7/22/2010 07:04 PM
Surr: 1,2-Dichloroethane-d4	*108*		*70-125*	*%REC*	20	7/22/2010 07:04 PM
Surr: 4-Bromofluorobenzene	*104*		*72-125*	*%REC*	20	7/22/2010 07:04 PM
Surr: Dibromofluoromethane	*114*		*71-125*	*%REC*	20	7/22/2010 07:04 PM
Surr: Toluene-d8	*108*		*75-125*	*%REC*	20	7/22/2010 07:04 PM
REACTIVE CYANIDE			**SW-846**			Analyst: **HN**
Reactive Cyanide	ND		40.0	mg/Kg	1	7/22/2010 12:00 PM
REACTIVE SULFIDE			**SW-846**			Analyst: **HN**
Reactive Sulfide	ND		40.0	mg/Kg	1	7/22/2010 12:00 PM
IGNITABILITY			**SW1030**			Analyst: **JLC**
Ignitability, Solid	**Negative**			**no unit**	1	7/15/2010 03:00 PM
PH			**SW9045B**			Analyst: **TDW**
pH	**8.88**		**0.100**	**pH Units**	1	7/20/2010 12:00 PM

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

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

Chain of Custody Form

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 #: 1007422

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	T-433	A	TCLP VOAS
Work Order		Project Number		B	TCLP SemiVOAS
Company Name	Navajo Refining	Bill To Company		C	TCLP Metals
Send Report To	Aaron Strange	Invoice Attn		D	RCT
Address	501 E Main	Address		E	
				F	
City/State/Zip	Artesia NM 88210	City/State/Zip		G	
Phone	575-748-3311	Phone		H	
Fax		Fax		I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	T-433 Leak/soil	7-13-10	1504	S	NO	1	X	X	X	X							
2	T-433 Bottoms/scal	7-1310	1509	S	NO	1	X	X	X	X							
3	Temp Blank																
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Aaron Strange

Shipment Method: Fed Ex

Required Turnaround Time: (Check Box) ☐ Other _____
☑ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Aaron Strange	7-13-10	1615	
Relinquished by:	Date:	Time:	Received by (Laboratory): 7-14-10 0900
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

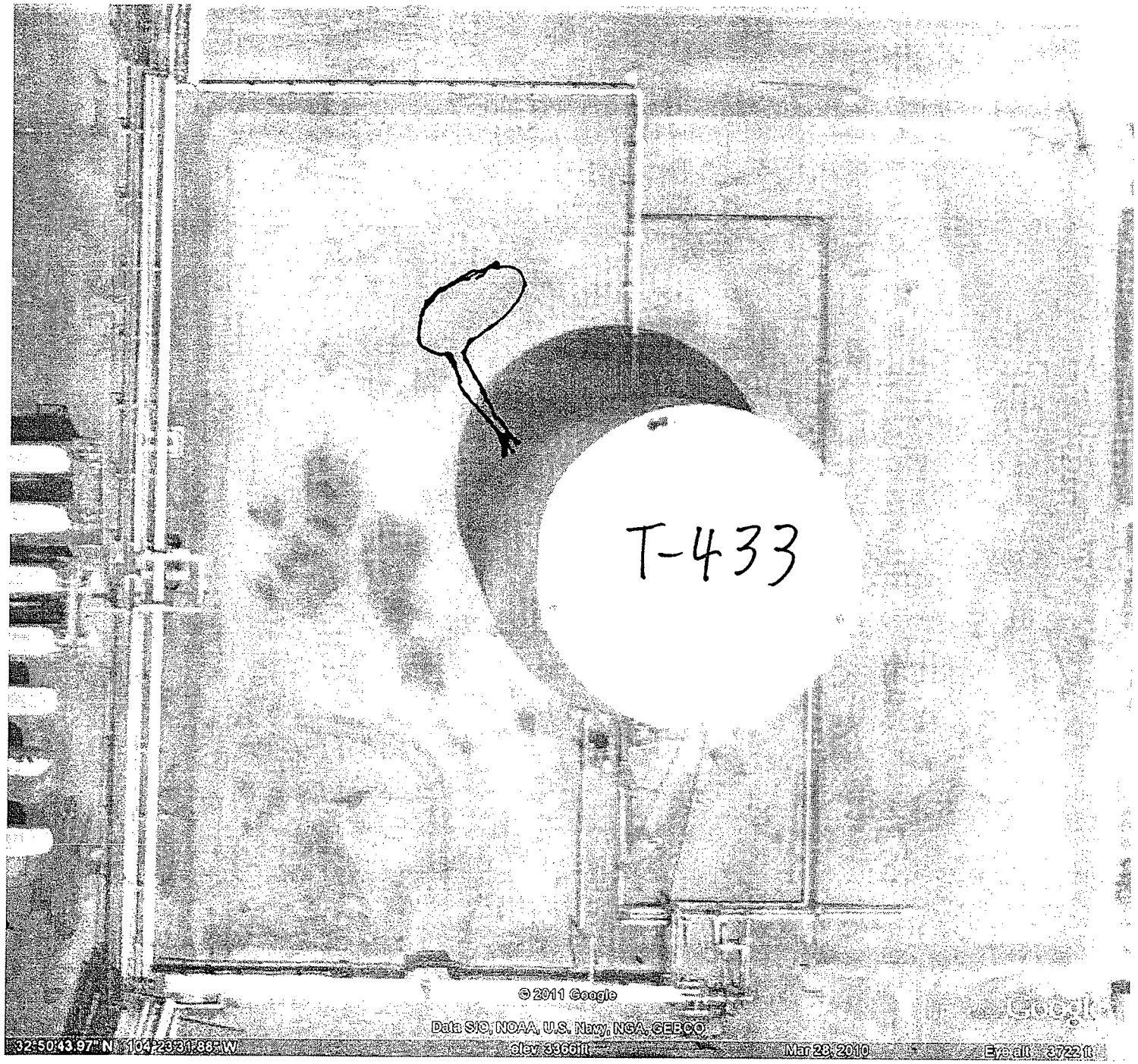
Notes:

Cooler ID	Cooler Temp

QC Package: (Check One Box Below)
☐ Level II Std QC
☐ Level III Std QC/Raw Date
☐ Level IV SW846/CLP
☐ TRRP Checklist
☐ TRRP Level IV
☐ 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.
3. The Chain of Custody is a legal document. All information must be completed accurately.


T-433
© 2011 Google
Data: SIO, NOAA, U.S. Navy, NGA, GEBCO
Google
32°50'43.97" N 104°23'31.86" W
elev 3366 ft
Mar 28, 2010
Eye alt 3722 ft

NON-HAZARDOUS WASTE MANIFEST

60740

PART I: Generator Navajo Refining Co. LLC
Address PO Box 159
City/State Artesia, NM 88211-0159

(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia

Permit No. NMD048918817

Property Name TANK 433
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	
DESCRIPTION / NOTES					
Cont. Soil 12yds					

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Carrie Hernandez
Signature of Generator's Authorized Agent

11-30-10
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers
Address
City/State Artesia NM

Telephone No.

3
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Greg
Signature of Transporter's Agent

11-30-10
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

11-30-10
Date and Time Received

TCP - #7520-A

NON-HAZARDOUS WASTE MANIFEST

62040

PART I: Generator Navajo Refining Co. LLC
Address PO Box 159
City/State Artesia, NM 88211-0159

(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia

Permit No. NMD048918817

Property Name Tank 433
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	

DESCRIPTION / NOTES	
Cont. Soil	12yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Carrie Hernandez
Signature of Generator's Authorized Agent

12-13-10
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers
Address Hartsia NM
City/State

Telephone No.

3
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Greg
Signature of Transporter's Agent

12-13-10
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

12-13-10
Date and Time Received

TCP - #7520-A

NON-HAZARDOUS WASTE MANIFEST

62041

PART I: Generator Navajo Refining Co. LLC
Address PO Box 159
City/State Artesia, NM 88211-0159

(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia

Permit No. NMD048918817

Property Name TANK 433
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	

DESCRIPTION / NOTES
Cont. Soil 12yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Connie Dinamarca
Signature of Generator's Authorized Agent

12-13-10
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers
Address
City/State

Telephone No.

3
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

12-13-10
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

12-13-10
Date and Time Received

TCP - #7520-A

NON-HAZARDOUS WASTE MANIFEST

62029

PART I: Generator Navajo Refining Co. LLC

Address PO Box 159

City/State Artesia, NM 88211-0159

(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia Permit No. NM0048918817

Property Name _____
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	

DESCRIPTION / NOTES
Cont. Soil 12yds
433 Tank

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers

Address _____

City/State _____

Telephone No.

2
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

12-07-10
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**

Address **P.O. Box 388**

City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

Date and Time Received

TCP - #7520-A

NON-HAZARDOUS WASTE MANIFEST

62034

PART I: Generator Navajo Refining Co. LLC
Address PO Box 159
City/State Artesia, NM 88211-0159

(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia

Permit No. NMD048918817

Property Name

(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	

DESCRIPTION / NOTES
Cont. Soil 12yds
433 Tank

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name 3 Brothers
Address
City/State

Telephone No.

2
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

12.02.10
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

12-2-10
Date and Time Received

TCP - #7520-A

NON-HAZARDOUS WASTE MANIFEST

92035

PART I: Generator Navajo Refining Co. LLC

Address PO Box 159

City/State Artesia, NM 88211-0159

(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia

Permit No. NM0048918817

Property Name _____
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	
DESCRIPTION / NOTES					
Cont. Soil 12yds					
433 Tank					

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers

Address _____

City/State _____

Telephone No.

2
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

12-03-10
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**

Address **P.O. Box 388**

City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

12-7-10
Date and Time Received

TCP - #7520-A

NON-HAZARDOUS WASTE MANIFEST

62038

PART I: Generator Navajo Refining Co. LLC
Address PO Box 159
City/State Artesia, NM 88211-0159
(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia
Permit No. NMD046918817

Property Name TANK 433
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	

DESCRIPTION / NOTES
Cont. Soil 12yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

12-3-10
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers
Address
City/State Artesia NM

Telephone No.
3
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

12-3-10
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.
www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

12-3-10
Date and Time Received

TCP - #7520-A

NON-HAZARDOUS WASTE MANIFEST 62080

PART I: Generator Navajo Refining Co. LLC
Address PO Box 159
City/State Artesia, NM 88211-0159
(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia Permit No. NMD048918817

Property Name Tank "43"
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	
DESCRIPTION / NOTES					
Cont. Soil 12yds					

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Carrie Hernandez
Signature of Generator's Authorized Agent

12-3-10
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers
Address
City/State Artesia NM
Telephone No.
3
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

12-3-10
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**
(575) 393-1079
Telephone No.
www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

12-3-10
Date and Time Received

TCP - #7520-A

NON-HAZARDOUS WASTE MANIFEST

62086

PART I: Generator Navajo Refining Co. LLC
Address PO Box 159
City/State Artesia, NM 88211-0159

(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia

Permit No. NM9048918817

Property Name Tank 433
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	
DESCRIPTION / NOTES					
Cont. Soil 12yds					

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

12-2-10
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers
Address
City/State Artesia NM

Telephone No.

3
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

12-2-10
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

12-2-10
Date and Time Received

TCP - #7520-A

NON-HAZARDOUS WASTE MANIFEST

02087

PART I: Generator Navajo Refining Co. LLC
Address PO Box 159
City/State Artesia, NM 88211-0159

(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia

Permit No. NMD048918817

Property Name Tank 433
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	
DESCRIPTION / NOTES					
Cont. Soil		12yds			

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

12-2-10
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers
Address
City/State Artesia NM

Telephone No.

3
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

12-2-10
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

12/2/10
Date and Time Received

TCP - #7520-A

NON-HAZARDOUS WASTE MANIFEST

62076

PART I: Generator Navajo Refining Co. LLC
Address PO Box 159
City/State Artesia, NM 88211-0159

(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia

Permit No. NMD048918817

Property Name TANK 433
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	

DESCRIPTION / NOTES
Cont. Soil 12yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

12-1-10
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers
Address
City/State Artesia NM

Telephone No.

3
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

12-1-10
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

12/1/10
Date and Time Received

TCP - #7520-A

NON-HAZARDOUS WASTE MANIFEST

62071

PART I: Generator Navajo Refining Co. LLC
Address PO Box 159
City/State Artesia, NM 88211-0159

(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia Permit No. NMD048918817

Property Name _____
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	

DESCRIPTION / NOTES
Cont. Soil 12yds
Tank 433

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

12-2-20
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers
Address _____
City/State _____

Telephone No.

Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

12-2-20
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

12-2-20
Date and Time Received

TCP - #7520-A

NON-HAZARDOUS WASTE MANIFEST

62070

PART I: Generator Navajo Refining Co. LLC

Address PO Box 159

City/State Artesia, NM 88211-0159

(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia

Permit No. NM0048918817

Property Name _____
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	

DESCRIPTION / NOTES
Cont. Soil 12yds
Tank 433

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

12-3-10
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers

Address _____

City/State _____

_____
Telephone No.

_____
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

12-3-10
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**

Address **P.O. Box 388**

City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

12-3-10
Date and Time Received

TCP - #7520-A

NON-HAZARDOUS WASTE MANIFEST

62089

PART I: Generator Navajo Refining Co. LLC

Address PO Box 159

City/State Artesia, NM 88211-0159

(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia Permit No. NM0648918817

Property Name _____
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	

DESCRIPTION / NOTES
Cont. Soil 12yds
433 Tank

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers

Address _____

City/State _____

Telephone No.

2
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

12-01-10
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**

Address **P.O. Box 388**

City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

12/1/10
Date and Time Received

TCP - #7520-A

NON-HAZARDOUS WASTE MANIFEST 62088

PART I: Generator Navajo Refining Co. LLC

Address PO Box 159

City/State Artesia, NM 88211-0159

(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia Permit No. NOD048918817

Property Name _____
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	

DESCRIPTION / NOTES
Cont. Soil 12yds
4/53 Tank

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers

Address _____

City/State _____

Telephone No.

2
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

12.6.10
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**

Address **P.O. Box 388**

City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

12-1-10
Date and Time Received

TCP - #7520-A

NON-HAZARDOUS WASTE MANIFEST

62037

PART I: Generator Navajo Refining Co. LLC

Address PO Box 159

City/State Artesia, NM 88211-0159

(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia

Permit No. NMD048918817

Property Name _____
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	

DESCRIPTION / NOTES
Cont. Soil 12yds
433 Tank

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers

Address _____

City/State _____

Telephone No.

2
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

12-02-10
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**

Address **P.O. Box 388**

City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

Date and Time Received

TCP - #7520-A

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ Longitude_____

NATURE OF RELEASE

Type of Release: Spill (Diesel)	Volume of Release: ~ 14 barrels	Volume Recovered: ~ 13 barrels
Source of Release: Open bleeder valve at Holly Energy Partners (HEP) 10 inch Empire Line Manifold	Date and Hour of Occurrence: 08/12/2010 ~ Unknown	Date and Hour of Discovery: 08/12/2010 ~ 11:00
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Spoke with Carl Chavez from Santa Fe OCD (575-476-3490). Left voicemail with Artesia OCD (575-748-1283 ext 104). Left voicemail with NMED Haz Waste Bureau (505-476-6000).	
By Whom? Aaron Strange	Date and Hour: 08/12/2010 at ~14:48 to Carl Chavez (Santa Fe OCD), 08/12/2010 at ~14:56 to Artesia OCD), and 08/12/2010 at ~14:59 to NMED.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.* Bleeder valve was left open on diesel line by our Pipeline Subsidiary operators. However, since the spill is on refinery property, we are reporting it. Remedial action taken – a small hole was dug to allow the spill to pool up and a vacuum truck was called to suck up the hydrocarbons.

Describe Area Affected and Cleanup Action Taken.*
The area affected is an area about 10' wide by 25' long in Pipelines "Four Corners Manifold Area". Pipeline has contracted Safety and Environmental Solutions to do the cleanup. Contaminated soil is being removed into roll-off boxes and bottom-hole samples will be taken.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Darrell Moore	OIL CONSERVATION DIVISION
Printed Name: Darrell Moore	Approved by District Supervisor:
Title: Env. Mgr for Water and Waste	Approval Date: / Expiration Date:
E-mail Address: Darrell.moore@hollycorp.com	Conditions of Approval: / Attached ☐
Date: 08/16/2010 Phone: 575-703-5058	

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Spill (Diesel)	Volume of Release: ~ 14 barrels	Volume Recovered: ~ 13 barrels
Source of Release: Open bleeder valve at Holly Energy Partners (HEP) 10 inch Empire Line Manifold	Date and Hour of Occurrence: 08/12/2010 ~ Unknown	Date and Hour of Discovery: 08/12/2010 ~ 11:00
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Spoke with Carl Chavez from Santa Fe OCD (575-476-3490). Left voicemail with Artesia OCD (575-748-1283 ext 104). Left voicemail with NMED Haz Waste Bureau (505-476-6000).	
By Whom? Aaron Strange	Date and Hour: 08/12/2010 at ~14:48 to Carl Chavez (Santa Fe OCD), 08/12/2010 at ~14:56 to Artesia OCD), and 08/12/2010 at ~14:59 to NMED.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

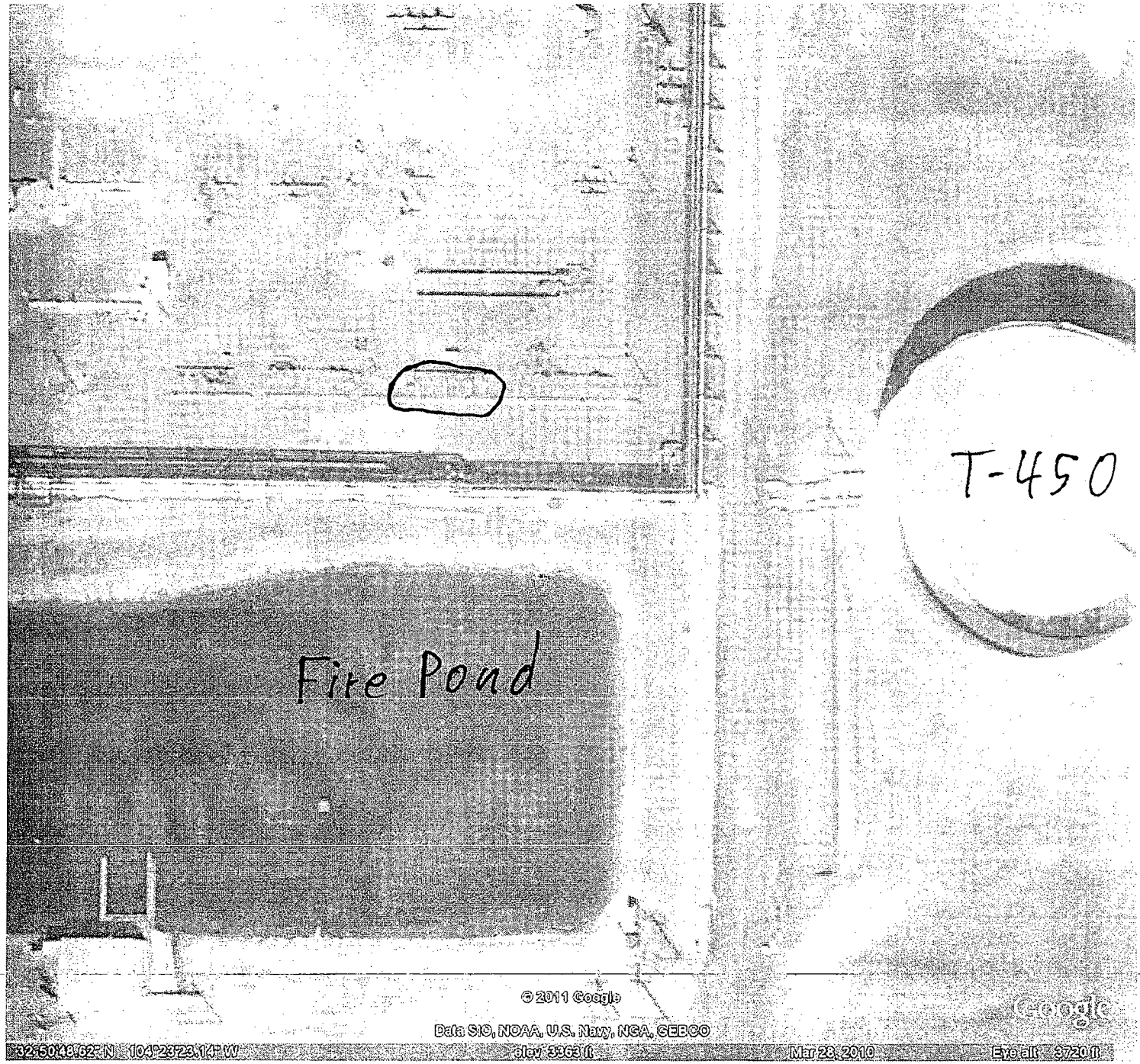
If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.* Bleeder valve was left open on diesel line by our Pipeline Subsidiary operators. However, since the spill is on refinery property, we are reporting it. Remedial action taken – a small hole was dug to allow the spill to pool up and a vacuum truck was called to suck up the hydrocarbons.

Describe Area Affected and Cleanup Action Taken.*
The area affected is an area about 10' wide by 25' long in Pipelines "Four Corners Manifold Area". Pipeline has contracted Safety and Environmental Solutions to do the cleanup. Contaminated soil is being removed into roll-off boxes and bottom-hole samples will be taken.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Darrell Moore	OIL CONSERVATION DIVISION	
Printed Name: Darrell Moore	Approved by District Supervisor:	
Title: Env. Mgr for Water and Waste	Approval Date:	Expiration Date:
E-mail Address: Darrell.moore@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 08/16/2010 Phone: 575-703-5058		


T-450
Fire Pond
© 2011 Google
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Google
32°50'48.62" N 104°23'23.14" W
elev 3363 ft
Mar 28, 2010
Eye alt 3720 ft

NON-HAZARDOUS WASTE MANIFEST

62345

PART I: Generator Navajo Refining Co. LLC
Address PO Box 159
City/State Artesia, NM 88211-0159
(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia
Permit No. NMD048918817

Property Name HEP Yard Soil
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	

DESCRIPTION / NOTES
Cont. Soil 12yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

12-28-10
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers
Address
City/State Artesia NM

Telephone No.

1
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

12-28-10
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

Date and Time Received

TCP - #7520-A

NON-HAZARDOUS WASTE MANIFEST

62064

PART I: Generator Navajo Refining Co. LLC
Address PO Box 159 (575) 748-3311
City/State Artesia, NM 88211-0159 Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia Permit No. NMD048918817

Property Name HEP Yard Soil
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	
DESCRIPTION / NOTES					
Cont. Soil 12yds					

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent — Date and Time of Shipment: 12-28-10

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers
Address
City/State Artesia
Telephone No.
Truck No. 1

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent — Date and Time Received: 12-28-10

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.** **(575) 393-1079**
Address **P.O. Box 388** Telephone No.
City/State **Hobbs, N.M. 88241-0388** **www.crihobbs.com**
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent — Date and Time Received: 12/28/10

TCP - #7520-A

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Spill of Water and Hydrocarbon (Oily Water Sewer Overflow)	Volume of Release: ~5 barrels	Volume Recovered: 0
Source of Release: Oily Water Sewers near API (Oil Water Separator) in Unit 80 Waste Water Treater.	Date and Hour of Occurrence: 08/21/2010 ~ 17:30	Date and Hour of Discovery: 08/21/2010 ~ 18:30
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left voicemail with Santa Fe OCD (575-476-3490). Left voicemail with Artesia OCD (575-748-1283 ext 104). Left voicemail with NMED Haz Waste Bureau (505-476-6000).	
By Whom? Gabriela Combs	Date and Hour: 08/212010 at ~19:00 to Santa Fe OCD, 08/21/2010 at ~19:10 to Artesia OCD), and 08/021/2010 at ~19:01 to NMED.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 08/21/10 at ~ 18:30 an operator discovered that the Oily Water Sewers near the API (Oil Water Separator) were overflowing onto the ground. A heavy rainstorm caused the sewer near the API to overflow. The two trash pumps were turned on until the level came down.

Describe Area Affected and Cleanup Action Taken.*
The area affected starts at the north end of the API lift station and runs east where it soaked in on the west side of the TEL (Tetra Ethel Lead) impoundment. The contaminated soil will be disposed of properly. Bottom Hole samples will be collected after it has been cleaned up.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 08/26/2010 Phone: 575-703-5057		

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Spill of Water and Hydrocarbon (Oily Water Sewer Overflow)	Volume of Release: ~5 barrels	Volume Recovered: 0
Source of Release: Oily Water Sewers near API (Oil Water Separator) in Unit 80 Waste Water Treater.	Date and Hour of Occurrence: 08/21/2010 ~ 17:30	Date and Hour of Discovery: 08/21/2010 ~ 18:30
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left voicemail with Santa Fe OCD (575-476-3490). Left voicemail with Artesia OCD (575-748-1283 ext 104). Left voicemail with NMED Haz Waste Bureau (505-476-6000).	
By Whom? Gabriela Combs	Date and Hour: 08/212010 at ~19:00 to Santa Fe OCD, 08/21/2010 at ~19:10 to Artesia OCD), and 08/021/2010 at ~19:01 to NMED.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 08/21/10 at ~ 18:30 an operator discovered that the Oily Water Sewers near the API (Oil Water Separator) were overflowing onto the ground. A heavy rainstorm caused the sewer near the API to overflow. The two trash pumps were turned on until the level came down.

Describe Area Affected and Cleanup Action Taken.*
The area affected starts at the north end of the API lift station and runs east where it soaked in on the west side of the TEL (Tetra Ethel Lead) impoundment. The contaminated soil will be disposed of properly. Bottom Hole samples will be collected after it has been cleaned up.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 08/26/2010 Phone: 575-703-5057		

ALS Environmental

Date: *06-Dec-10*

Client: Navajo Refining Company
Project: 8-21-10 API Overflow
Work Order: 1011959
Sample ID: BH #1
Lab ID: 1011959-01
Collection Date: 11/29/2010 11:09 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			**SW8015M**		Prep Date: **11/30/2010**	Analyst: **SE**
TPH (Gasoline Range)	ND		250	mg/Kg	5	12/2/2010 04:20 AM
TPH (Diesel Range)	**1,500**		**250**	**mg/Kg**	5	12/2/2010 04:20 AM
Surr: 2-Fluorobiphenyl	*93.6*		*70-130*	*%REC*	5	12/2/2010 04:20 AM
Surr: Trifluoromethyl benzene	*119*		*70-130*	*%REC*	5	12/2/2010 04:20 AM
MERCURY			**SW7471A**		Prep Date: **12/1/2010**	Analyst: **JCJ**
Mercury	**0.0269**		**0.00212**	**mg/Kg**	1	12/1/2010 08:41 PM
METALS			**SW6020**		Prep Date: **12/1/2010**	Analyst: **SKS**
Arsenic	**7.03**		**0.459**	**mg/Kg**	1	12/2/2010 06:21 PM
Barium	**140**		**0.459**	**mg/Kg**	1	12/3/2010 12:44 PM
Cadmium	ND		0.459	mg/Kg	1	12/3/2010 12:44 PM
Chromium	**13.8**		**0.459**	**mg/Kg**	1	12/2/2010 06:21 PM
Lead	**33.7**		**0.459**	**mg/Kg**	1	12/2/2010 06:21 PM
Selenium	**1.58**		**0.459**	**mg/Kg**	1	12/2/2010 06:21 PM
Silver	ND		0.459	mg/Kg	1	12/3/2010 12:44 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **12/3/2010**	Analyst: **LG**
1,1´-Biphenyl	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
2,4,5-Trichlorophenol	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
2,4,6-Trichlorophenol	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
2,4-Dichlorophenol	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
2,4-Dimethylphenol	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
2,4-Dinitrophenol	ND		0.33	mg/Kg	10	12/3/2010 07:30 PM
2,4-Dinitrotoluene	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
2,6-Dinitrotoluene	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
2-Chloronaphthalene	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
2-Chlorophenol	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
2-Methylnaphthalene	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
2-Methylphenol	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
2-Nitroaniline	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
2-Nitrophenol	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
3&4-Methylphenol	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
3,3´-Dichlorobenzidine	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
3-Nitroaniline	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
4,6-Dinitro-2-methylphenol	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
4-Bromophenyl phenyl ether	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
4-Chloro-3-methylphenol	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
4-Chloroaniline	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
4-Chlorophenyl phenyl ether	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM

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

ALS Environmental

Date: *06-Dec-10*

Client: Navajo Refining Company
Project: 8-21-10 API Overflow
Work Order: 1011959
Sample ID: BH #1
Lab ID: 1011959-01
Collection Date: 11/29/2010 11:09 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
4-Nitroaniline	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
4-Nitrophenol	ND		0.33	mg/Kg	10	12/3/2010 07:30 PM
Acenaphthene	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Acenaphthylene	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Acetophenone	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Anthracene	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Atrazine	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Benz(a)anthracene	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Benzaldehyde	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Benzo(a)pyrene	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Benzo(b)fluoranthene	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Benzo(g,h,i)perylene	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Benzo(k)fluoranthene	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Bis(2-chloroethoxy)methane	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Bis(2-chloroethyl)ether	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Bis(2-chloroisopropyl)ether	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Bis(2-ethylhexyl)phthalate	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Butyl benzyl phthalate	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Caprolactam	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Carbazole	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Chrysene	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Di-n-butyl phthalate	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Di-n-octyl phthalate	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Dibenz(a,h)anthracene	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Dibenzofuran	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Diethyl phthalate	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Dimethyl phthalate	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Fluoranthene	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Fluorene	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Hexachlorobenzene	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Hexachlorobutadiene	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Hexachlorocyclopentadiene	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Hexachloroethane	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Indeno(1,2,3-cd)pyrene	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Isophorone	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
N-Nitrosodi-n-propylamine	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
N-Nitrosodiphenylamine	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Naphthalene	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Nitrobenzene	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Pentachlorophenol	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM

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

Client: Navajo Refining Company
Project: 8-21-10 API Overflow
Work Order: 1011959
Sample ID: BH #1
Lab ID: 1011959-01
Collection Date: 11/29/2010 11:09 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Phenanthrene	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Phenol	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Pyrene	ND		0.066	mg/Kg	10	12/3/2010 07:30 PM
Surr: 2,4,6-Tribromophenol	*63.2*		*36-126*	*%REC*	10	12/3/2010 07:30 PM
Surr: 2-Fluorobiphenyl	*69.4*		*43-125*	*%REC*	10	12/3/2010 07:30 PM
Surr: 2-Fluorophenol	*49.9*		*37-125*	*%REC*	10	12/3/2010 07:30 PM
Surr: 4-Terphenyl-d14	*77.2*		*32-125*	*%REC*	10	12/3/2010 07:30 PM
Surr: Nitrobenzene-d5	*69.9*		*37-125*	*%REC*	10	12/3/2010 07:30 PM
Surr: Phenol-d6	*67.1*		*40-125*	*%REC*	10	12/3/2010 07:30 PM

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

Client: Navajo Refining Company
Project: 8-21-10 API Overflow
Work Order: 1011959
Sample ID: BH #2
Lab ID: 1011959-02
Collection Date: 11/29/2010 11:13 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			**SW8015M**		Prep Date: **11/30/2010**	Analyst: **SE**
TPH (Gasoline Range)	ND		250	mg/Kg	5	12/2/2010 04:51 AM
TPH (Diesel Range)	**1,700**		**250**	**mg/Kg**	5	12/2/2010 04:51 AM
Surr: 2-Fluorobiphenyl	*82.6*		*70-130*	*%REC*	5	12/2/2010 04:51 AM
Surr: Trifluoromethyl benzene	*120*		*70-130*	*%REC*	5	12/2/2010 04:51 AM
MERCURY			**SW7471A**		Prep Date: **12/1/2010**	Analyst: **JCJ**
Mercury	**0.0708**		**0.00349**	**mg/Kg**	1	12/1/2010 08:43 PM
METALS			**SW6020**		Prep Date: **12/1/2010**	Analyst: **SKS**
Arsenic	**5.15**		**0.481**	**mg/Kg**	1	12/2/2010 07:52 PM
Barium	**141**		**0.481**	**mg/Kg**	1	12/2/2010 07:52 PM
Cadmium	ND		0.481	mg/Kg	1	12/2/2010 07:52 PM
Chromium	**16.9**		**0.481**	**mg/Kg**	1	12/2/2010 07:52 PM
Lead	**66.6**		**0.481**	**mg/Kg**	1	12/2/2010 07:52 PM
Selenium	**1.42**		**0.481**	**mg/Kg**	1	12/2/2010 07:52 PM
Silver	ND		0.481	mg/Kg	1	12/2/2010 07:52 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **12/3/2010**	Analyst: **LG**
1,1'-Biphenyl	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
2,4,5-Trichlorophenol	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
2,4,6-Trichlorophenol	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
2,4-Dichlorophenol	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
2,4-Dimethylphenol	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
2,4-Dinitrophenol	ND		0.33	mg/Kg	10	12/3/2010 07:50 PM
2,4-Dinitrotoluene	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
2,6-Dinitrotoluene	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
2-Chloronaphthalene	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
2-Chlorophenol	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
2-Methylnaphthalene	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
2-Methylphenol	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
2-Nitroaniline	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
2-Nitrophenol	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
3&4-Methylphenol	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
3,3'-Dichlorobenzidine	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
3-Nitroaniline	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
4,6-Dinitro-2-methylphenol	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
4-Bromophenyl phenyl ether	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
4-Chloro-3-methylphenol	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
4-Chloroaniline	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
4-Chlorophenyl phenyl ether	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM

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

ALS Environmental

Date: *06-Dec-10*

Client: Navajo Refining Company
Project: 8-21-10 API Overflow
Sample ID: BH #2
Collection Date: 11/29/2010 11:13 AM

Work Order: 1011959
Lab ID: 1011959-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
4-Nitroaniline	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
4-Nitrophenol	ND		0.33	mg/Kg	10	12/3/2010 07:50 PM
Acenaphthene	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Acenaphthylene	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Acetophenone	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Anthracene	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Atrazine	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Benz(a)anthracene	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Benzaldehyde	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Benzo(a)pyrene	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Benzo(b)fluoranthene	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Benzo(g,h,i)perylene	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Benzo(k)fluoranthene	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Bis(2-chloroethoxy)methane	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Bis(2-chloroethyl)ether	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Bis(2-chloroisopropyl)ether	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Bis(2-ethylhexyl)phthalate	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Butyl benzyl phthalate	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Caprolactam	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Carbazole	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Chrysene	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Di-n-butyl phthalate	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Di-n-octyl phthalate	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Dibenz(a,h)anthracene	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Dibenzofuran	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Diethyl phthalate	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Dimethyl phthalate	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Fluoranthene	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Fluorene	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Hexachlorobenzene	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Hexachlorobutadiene	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Hexachlorocyclopentadiene	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Hexachloroethane	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Indeno(1,2,3-cd)pyrene	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Isophorone	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
N-Nitrosodi-n-propylamine	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
N-Nitrosodiphenylamine	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Naphthalene	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Nitrobenzene	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Pentachlorophenol	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM

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

ALS Environmental

Date: *06-Dec-10*

Client: Navajo Refining Company
Project: 8-21-10 API Overflow
Work Order: 1011959
Sample ID: BH #2
Lab ID: 1011959-02
Collection Date: 11/29/2010 11:13 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Phenanthrene	**0.067**		**0.066**	**mg/Kg**	10	12/3/2010 07:50 PM
Phenol	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Pyrene	ND		0.066	mg/Kg	10	12/3/2010 07:50 PM
Surr: 2,4,6-Tribromophenol	*79.2*		*36-126*	*%REC*	10	12/3/2010 07:50 PM
Surr: 2-Fluorobiphenyl	*73.1*		*43-125*	*%REC*	10	12/3/2010 07:50 PM
Surr: 2-Fluorophenol	*65.6*		*37-125*	*%REC*	10	12/3/2010 07:50 PM
Surr: 4-Terphenyl-d14	*97.7*		*32-125*	*%REC*	10	12/3/2010 07:50 PM
Surr: Nitrobenzene-d5	*70.5*		*37-125*	*%REC*	10	12/3/2010 07:50 PM
Surr: Phenol-d6	*74.8*		*40-125*	*%REC*	10	12/3/2010 07:50 PM

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

ALS Environmental

Date: *06-Dec-10*

Client: Navajo Refining Company
Project: 8-21-10 API Overflow
Work Order: 1011959
Sample ID: BH #3
Lab ID: 1011959-03
Collection Date: 11/29/2010 11:18 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			**SW8015M**		Prep Date: **11/30/2010**	Analyst: **SE**
TPH (Gasoline Range)	ND		49	mg/Kg	1	12/2/2010 03:49 AM
TPH (Diesel Range)	**120**		**49**	**mg/Kg**	1	12/2/2010 03:49 AM
Surr: 2-Fluorobiphenyl	*84.6*		*70-130*	*%REC*	1	12/2/2010 03:49 AM
Surr: Trifluoromethyl benzene	*84.2*		*70-130*	*%REC*	1	12/2/2010 03:49 AM
MERCURY			**SW7471A**		Prep Date: **12/1/2010**	Analyst: **JCJ**
Mercury	**0.300**		**0.00335**	**mg/Kg**	1	12/1/2010 08:45 PM
METALS			**SW6020**		Prep Date: **12/1/2010**	Analyst: **SKS**
Arsenic	**9.60**		**0.476**	**mg/Kg**	1	12/2/2010 07:58 PM
Barium	**116**		**0.476**	**mg/Kg**	1	12/2/2010 07:58 PM
Cadmium	ND		0.476	mg/Kg	1	12/2/2010 07:58 PM
Chromium	**28.3**		**0.476**	**mg/Kg**	1	12/2/2010 07:58 PM
Lead	**98.8**		**0.476**	**mg/Kg**	1	12/2/2010 07:58 PM
Selenium	**1.02**		**0.476**	**mg/Kg**	1	12/2/2010 07:58 PM
Silver	ND		0.476	mg/Kg	1	12/2/2010 07:58 PM

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

ALS Environmental

Date: *06-Dec-10*

Client: Navajo Refining Company
Project: 8-21-10 API Overflow
Work Order: 1011959
Sample ID: BH #4
Lab ID: 1011959-04
Collection Date: 11/29/2010 11:22 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			**SW8015M**		Prep Date: **11/30/2010**	Analyst: **SE**
TPH (Gasoline Range)	ND		49	mg/Kg	1	12/2/2010 03:19 AM
TPH (Diesel Range)	**200**		**49**	**mg/Kg**	1	12/2/2010 03:19 AM
Surr: 2-Fluorobiphenyl	*73.9*		*70-130*	*%REC*	1	12/2/2010 03:19 AM
Surr: Trifluoromethyl benzene	*75.4*		*70-130*	*%REC*	1	12/2/2010 03:19 AM
MERCURY			**SW7471A**		Prep Date: **12/1/2010**	Analyst: **JCJ**
Mercury	**0.0142**		**0.00340**	**mg/Kg**	1	12/1/2010 08:47 PM
METALS			**SW6020**		Prep Date: **12/1/2010**	Analyst: **SKS**
Arsenic	**12.5**		**0.439**	**mg/Kg**	1	12/2/2010 08:33 PM
Barium	**133**		**0.439**	**mg/Kg**	1	12/2/2010 08:33 PM
Cadmium	ND		0.439	mg/Kg	1	12/2/2010 08:33 PM
Chromium	**11.6**		**0.439**	**mg/Kg**	1	12/2/2010 08:33 PM
Lead	**18.1**		**0.439**	**mg/Kg**	1	12/2/2010 08:33 PM
Selenium	**1.34**		**0.439**	**mg/Kg**	1	12/2/2010 08:33 PM
Silver	ND		0.439	mg/Kg	1	12/2/2010 08:33 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **12/3/2010**	Analyst: **LG**
1,1´-Biphenyl	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
2,4,5-Trichlorophenol	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
2,4,6-Trichlorophenol	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
2,4-Dichlorophenol	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
2,4-Dimethylphenol	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
2,4-Dinitrophenol	ND		0.33	mg/Kg	10	12/3/2010 08:10 PM
2,4-Dinitrotoluene	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
2,6-Dinitrotoluene	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
2-Chloronaphthalene	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
2-Chlorophenol	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
2-Methylnaphthalene	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
2-Methylphenol	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
2-Nitroaniline	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
2-Nitrophenol	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
3&4-Methylphenol	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
3,3´-Dichlorobenzidine	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
3-Nitroaniline	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
4,6-Dinitro-2-methylphenol	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
4-Bromophenyl phenyl ether	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
4-Chloro-3-methylphenol	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
4-Chloroaniline	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
4-Chlorophenyl phenyl ether	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM

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

ALS Environmental

Date: *06-Dec-10*

Client: Navajo Refining Company
Project: 8-21-10 API Overflow
Work Order: 1011959
Sample ID: BH #4
Lab ID: 1011959-04
Collection Date: 11/29/2010 11:22 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
4-Nitroaniline	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
4-Nitrophenol	ND		0.33	mg/Kg	10	12/3/2010 08:10 PM
Acenaphthene	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Acenaphthylene	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Acetophenone	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Anthracene	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Atrazine	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Benz(a)anthracene	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Benzaldehyde	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Benzo(a)pyrene	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Benzo(b)fluoranthene	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Benzo(g,h,i)perylene	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Benzo(k)fluoranthene	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Bis(2-chloroethoxy)methane	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Bis(2-chloroethyl)ether	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Bis(2-chloroisopropyl)ether	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Bis(2-ethylhexyl)phthalate	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Butyl benzyl phthalate	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Caprolactam	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Carbazole	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Chrysene	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Di-n-butyl phthalate	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Di-n-octyl phthalate	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Dibenz(a,h)anthracene	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Dibenzofuran	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Diethyl phthalate	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Dimethyl phthalate	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Fluoranthene	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Fluorene	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Hexachlorobenzene	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Hexachlorobutadiene	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Hexachlorocyclopentadiene	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Hexachloroethane	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Indeno(1,2,3-cd)pyrene	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Isophorone	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
N-Nitrosodi-n-propylamine	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
N-Nitrosodiphenylamine	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Naphthalene	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Nitrobenzene	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Pentachlorophenol	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM

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

Client: Navajo Refining Company
Project: 8-21-10 API Overflow
Work Order: 1011959
Sample ID: BH #4
Lab ID: 1011959-04
Collection Date: 11/29/2010 11:22 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Phenanthrene	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Phenol	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Pyrene	ND		0.066	mg/Kg	10	12/3/2010 08:10 PM
Surr: 2,4,6-Tribromophenol	*50.7*		*36-126*	*%REC*	10	12/3/2010 08:10 PM
Surr: 2-Fluorobiphenyl	*52.2*		*43-125*	*%REC*	10	12/3/2010 08:10 PM
Surr: 2-Fluorophenol	*48.8*		*37-125*	*%REC*	10	12/3/2010 08:10 PM
Surr: 4-Terphenyl-d14	*75.9*		*32-125*	*%REC*	10	12/3/2010 08:10 PM
Surr: Nitrobenzene-d5	*50.6*		*37-125*	*%REC*	10	12/3/2010 08:10 PM
Surr: Phenol-d6	*44.8*		*40-125*	*%REC*	10	12/3/2010 08:10 PM

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

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Chain of Custody Form

Page 1 of 1

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ALS Project Manager: | ALS Work Order #: 1011959

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	8-21-10 API Overflow	A	DRO
Work Order		Project Number		B	GRO
Company Name	Navajo Refining Co.	Bill To Company		C	RCRA Metals
Send Report To	Aaron Strange	Invoice Attn		D	
Address	PO Box 159	Address		E	If GRO Greater than 30 mg/kg run VOC's
				F	If DRO Greater than 200 mg/kg run SVOCs
City/State/Zip	Artesia NM 88211	City/State/Zip		G	
Phone	575-748-3311	Phone		H	
Fax	575-746-5451	Fax		I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	BH #1	11-29-10	11:09	S	NP	1	X	X	X		X	X					
2	BH #2		11:13				X	X	X		X	X					
3	BH #3		11:16				X	X	X		X	X					
4	BH #4		11:22				X	X	\		X	X					
5	Temp Blank																
6	Trip Blank																
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Aaron Strange

Shipment Method: Fed Ex

Required Turnaround Time: (Check Box) ☑ Other ASAP ☐ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour

Results Due Date:

Relinquished by: Aaron Strange	Date: 11-29-10	Time: 16:15	Received by:	Notes:	
Relinquished by:	Date:	Time:	Received by (Laboratory): 11/30/10 0900	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.
3. The Chain of Custody is a legal document. All information must be completed accurately.

Client: Navajo Refining Company
Project: 8-21-10 API Overflow
Work Order: **1012285**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1012285-01	BH #1	Soil		12/8/2010 14:07	12/9/2010 09:10	☐
1012285-02	BH #2	Soil		12/8/2010 14:14	12/9/2010 09:10	☐
1012285-03	BH #3	Soil		12/8/2010 14:20	12/9/2010 09:10	☐
1012285-04	BH #4	Soil		12/8/2010 14:24	12/9/2010 09:10	☐
1012285-05	Trip Blank	Water		12/9/2010	12/9/2010	☑

ALS Environmental

Date: *14-Dec-10*

Client: Navajo Refining Company
Project: 8-21-10 API Overflow
Work Order: 1012285
Sample ID: BH #1
Lab ID: 1012285-01
Collection Date: 12/8/2010 02:07 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			**SW8015M**		Prep Date: **12/9/2010**	Analyst: **SE**
TPH (Gasoline Range)	ND		50	mg/Kg	1	12/10/2010 02:56 AM
TPH (Diesel Range)	ND		50	mg/Kg	1	12/10/2010 02:56 AM
Surr: 2-Fluorobiphenyl	*96.6*		*70-130*	*%REC*	1	12/10/2010 02:56 AM
Surr: Trifluoromethyl benzene	*98.9*		*70-130*	*%REC*	1	12/10/2010 02:56 AM
MERCURY			**SW7471A**		Prep Date: **12/9/2010**	Analyst: **JCJ**
Mercury	**0.0113**		**0.00206**	**mg/Kg**	1	12/9/2010 07:55 PM
METALS			**SW6020**		Prep Date: **12/10/2010**	Analyst: **ALR**
Arsenic	**4.99**		**0.472**	**mg/Kg**	1	12/13/2010 05:26 PM
Barium	**157**		**0.472**	**mg/Kg**	1	12/12/2010 06:54 AM
Cadmium	ND		0.472	mg/Kg	1	12/12/2010 06:54 AM
Chromium	**15.4**		**0.472**	**mg/Kg**	1	12/13/2010 05:26 PM
Lead	**17.5**		**0.472**	**mg/Kg**	1	12/13/2010 05:26 PM
Selenium	**0.847**		**0.472**	**mg/Kg**	1	12/13/2010 05:26 PM
Silver	ND		0.472	mg/Kg	1	12/12/2010 06:54 AM

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

ALS Environmental

Date: *14-Dec-10*

Client: Navajo Refining Company
Project: 8-21-10 API Overflow
Work Order: 1012285
Sample ID: BH #2
Lab ID: 1012285-02
Collection Date: 12/8/2010 02:14 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			**SW8015M**		Prep Date: **12/9/2010**	Analyst: **SE**
TPH (Gasoline Range)	ND		50	mg/Kg	1	12/10/2010 04:29 AM
TPH (Diesel Range)	ND		50	mg/Kg	1	12/10/2010 04:29 AM
Surr: 2-Fluorobiphenyl	*87.2*		*70-130*	*%REC*	1	12/10/2010 04:29 AM
Surr: Trifluoromethyl benzene	*91.2*		*70-130*	*%REC*	1	12/10/2010 04:29 AM
MERCURY			**SW7471A**		Prep Date: **12/9/2010**	Analyst: **JCJ**
Mercury	**0.0114**		**0.00336**	**mg/Kg**	1	12/9/2010 07:57 PM
METALS			**SW6020**		Prep Date: **12/10/2010**	Analyst: **ALR**
Arsenic	**4.68**		**0.467**	**mg/Kg**	1	12/12/2010 06:07 AM
Barium	**154**		**0.467**	**mg/Kg**	1	12/12/2010 06:07 AM
Cadmium	ND		0.467	mg/Kg	1	12/12/2010 06:07 AM
Chromium	**15.2**		**0.467**	**mg/Kg**	1	12/12/2010 06:07 AM
Lead	**59.2**		**0.467**	**mg/Kg**	1	12/12/2010 06:07 AM
Selenium	**0.897**		**0.467**	**mg/Kg**	1	12/12/2010 06:07 AM
Silver	ND		0.467	mg/Kg	1	12/12/2010 06:07 AM

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

ALS Environmental **Date:** *14-Dec-10*

Client: Navajo Refining Company
Project: 8-21-10 API Overflow **Work Order:** 1012285
Sample ID: BH #3 **Lab ID:** 1012285-03
Collection Date: 12/8/2010 02:20 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			**SW8015M**		Prep Date: **12/9/2010**	Analyst: **SE**
TPH (Gasoline Range)	ND		50	mg/Kg	1	12/10/2010 05:00 AM
TPH (Diesel Range)	ND		50	mg/Kg	1	12/10/2010 05:00 AM
Surr: 2-Fluorobiphenyl	*86.5*		*70-130*	*%REC*	1	12/10/2010 05:00 AM
Surr: Trifluoromethyl benzene	*91.5*		*70-130*	*%REC*	1	12/10/2010 05:00 AM
MERCURY			**SW7471A**		Prep Date: **12/9/2010**	Analyst: **JCJ**
Mercury	**0.0126**		**0.00354**	**mg/Kg**	1	12/9/2010 07:59 PM
METALS			**SW6020**		Prep Date: **12/10/2010**	Analyst: **ALR**
Arsenic	**4.80**		**0.472**	**mg/Kg**	1	12/13/2010 05:32 PM
Barium	**156**		**0.472**	**mg/Kg**	1	12/12/2010 07:00 AM
Cadmium	ND		0.472	mg/Kg	1	12/12/2010 07:00 AM
Chromium	**15.5**		**0.472**	**mg/Kg**	1	12/13/2010 05:32 PM
Lead	**16.9**		**0.472**	**mg/Kg**	1	12/13/2010 05:32 PM
Selenium	**0.845**		**0.472**	**mg/Kg**	1	12/13/2010 05:32 PM
Silver	ND		0.472	mg/Kg	1	12/12/2010 07:00 AM

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

ALS Environmental

Date: *14-Dec-10*

Client: Navajo Refining Company
Project: 8-21-10 API Overflow
Work Order: 1012285
Sample ID: BH #4
Lab ID: 1012285-04
Collection Date: 12/8/2010 02:24 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			**SW8015M**		Prep Date: **12/9/2010**	Analyst: **SE**
TPH (Gasoline Range)	ND		50	mg/Kg	1	12/10/2010 05:31 AM
TPH (Diesel Range)	ND		50	mg/Kg	1	12/10/2010 05:31 AM
Surr: 2-Fluorobiphenyl	*97.1*		*70-130*	*%REC*	1	12/10/2010 05:31 AM
Surr: Trifluoromethyl benzene	*98.8*		*70-130*	*%REC*	1	12/10/2010 05:31 AM
MERCURY			**SW7471A**		Prep Date: **12/9/2010**	Analyst: **JCJ**
Mercury	**0.0122**		**0.00341**	**mg/Kg**	1	12/9/2010 08:01 PM
METALS			**SW6020**		Prep Date: **12/10/2010**	Analyst: **ALR**
Arsenic	**4.75**		**0.467**	**mg/Kg**	1	12/13/2010 05:37 PM
Barium	**204**		**4.67**	**mg/Kg**	10	12/13/2010 06:03 PM
Cadmium	ND		0.467	mg/Kg	1	12/12/2010 07:06 AM
Chromium	**14.9**		**0.467**	**mg/Kg**	1	12/13/2010 05:37 PM
Lead	**13.2**		**0.467**	**mg/Kg**	1	12/13/2010 05:37 PM
Selenium	**0.818**		**0.467**	**mg/Kg**	1	12/13/2010 05:37 PM
Silver	ND		0.467	mg/Kg	1	12/12/2010 07:06 AM

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

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Chain of Custody Form

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ALS Project Manager: | ALS Work Order #: 1012285

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	3-21-10 API Overflow	A	DRO
Work Order		Project Number		B	GRO
Company Name	Navajo Refining Co	Bill To Company		C	RCRA Metals
Send Report To	Aaron Strange	Invoice Attn		D	
Address	PO Box 159	Address		E	If GRO Greater than 80 mg/kg run VOC's
				F	If DRO Greater than 200 mg/kg run SVOC's
City/State/Zip	Artesia NM 88211	City/State/Zip		G	
Phone	575-748-3311	Phone		H	
Fax	575-746-5451	Fax		I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	BH # 1	12-8-10	14:07	S	NO	1	X	X	X		X	X					
2	BH # 2	↓	14:14	↓	↓	↓	X	X	X		X	X					
3	BH # 3		14:20				X	X	X		X	✓					
4	BH # 4		14:24				X	X	X		X	X					
5	Temp Blank																
6	Trip Blank																
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Aaron Strange

Shipment Method: Fed Ex

Required Turnaround Time: (Check Box) ☒ Other ASAP ☐ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour

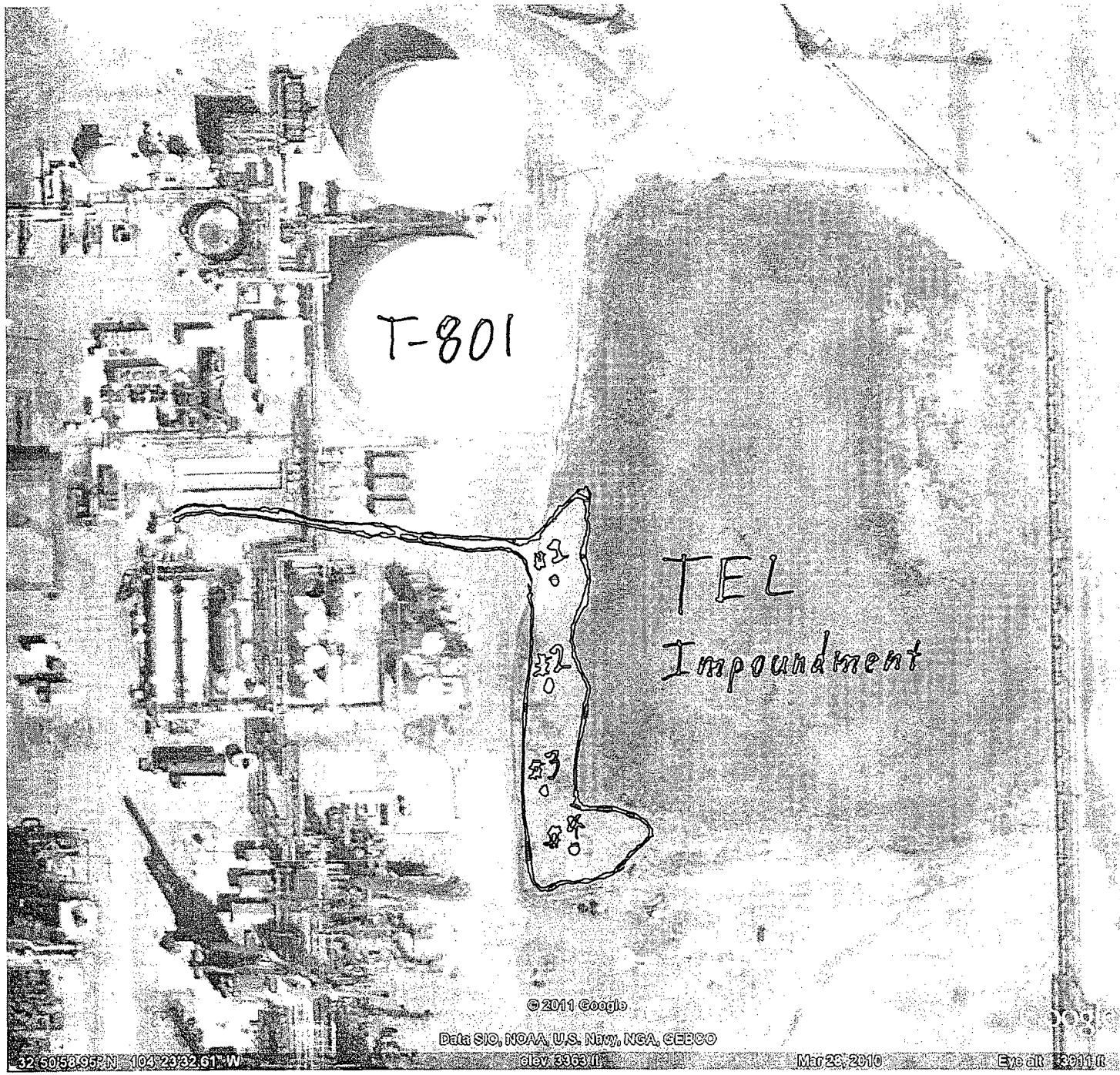
Results Due Date:

Relinquished by:	Date: 12-8-10	Time: 1615	Received by:	Notes:	
Relinquished by:	Date:	Time:	Received by (Laboratory): 12/8/10 0910	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.
3. The Chain of Custody is a legal document. All information must be completed accurately.


T-801
TEL
Impoundment
© 2011 Google
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
32°50'58.95" N 103°23'32.61" W
elev 3963 ft
Mar 28, 2010
Eye alt 3911 ft

lease print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NMD048918817	1	800-424-9300	004091616 JJK

5. Generator's Name and Mailing Address: NAVAJO REFINING, PO BOX 159, ARTESIA NM 88211

Generator's Site Address (if different than mailing address): 501 E Main, Artesia NM 88210

Generator's Phone: ~~505~~ 575 -748-3311

6. Transporter 1 Company Name: FLUID TRANSPORTS — U.S. EPA ID Number: TXD 988057931

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: RINECO, 1007 VULCAN RD., BENTON AR 72015 — U.S. EPA ID Number: ARD 981057870

Facility's Phone: 501-778-6325

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, NA 3077, HAZARDOUS WASTE SOLID, NOS, (F037), 9, PGIII	1	CM	Approx 29,080	P	F037
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
0910-18555.
LOAD# 186407
BOX# 20537

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Aaron Strange — Signature: [signature] — Month 11 Day 1 Year 10

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Alex Hernandez — Signature: [signature] — Month 11 Day 2 Year 10
Transporter 2 Printed/Typed Name — Signature — Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H061 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Shonda S. Teele — Signature: [signature] — Month 11 Day 10 Year 10

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Plant	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude ~N32°45'54.5" **Longitude** ~W104°14'17.4"

NATURE OF RELEASE

Type of Release: Spill of Treated Waste Water (by Aggressive Bio. Treatment)	Volume of Release: Unknown	Volume Recovered: ~0 barrels
Source of Release: Effluent line leak between the Chukka and Gaines Injection Wells.	Date and Hour of Occurrence: 09/27/2010 Unknown	Date and Hour of Discovery: 09/27/2010 ~ 08:00
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Spoke with Carl Chavez from OCD in Santa Fe (505-476-3490), left a voicemail with OCD Artesia Office (575-748-1283 extension 102), and left a voicemail with Hope Monzeglio from the NMED Haz Waste Bureau (505-476-6045).	
By Whom? Aaron Strange	Date and Hour: 09/28/2010 at ~07:31 to Carl Chavez (OCD Santa Fe), 09/28/2010 at ~08:12 to the OCD Artesia office, and 09/28/2010 at ~08:16 to NMED Haz Waste Bureau.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 09/27/2010 at ~ 08:00 a leak was found between the Chukka and Gaines Injection Wells. The Effluent line was blocked in at the Waste Water Treater (inside the refinery) to stop the leak and repair the line. The leak was excavated and the line was clamped and is holding.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the effluent line between the Chukka and Gaines Injection Wells at ~ N32°45'54.5", W104°14'17.4". The leak was excavated to make repairs and the soil was placed into roll-off bins. The leak did not stain the soil; however Navajo will dispose of the excavated soil as Non-Hazardous Waste per analytical results. Bottom Hole samples have been collected and tested for BTEX, Metals, and Anions. This leak was just a few feet from the leaks that occurred on 02/20/2010 and 04/15/2010.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 11/10/2010 Phone: 575-703-5057		

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Plant	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude ~N32°45'54.5" **Longitude** ~W104°14'17.4"

NATURE OF RELEASE

Type of Release: Spill of Treated Waster Water (by Aggressive Bio. Treatment)	Volume of Release: Unknown	Volume Recovered: ~0 barrels
Source of Release: Effluent line leak between the Chukka and Gaines Injection Wells.	Date and Hour of Occurrence: 09/27/2010 ~ 07:20 (Unknown)	Date and Hour of Discovery: 09/27/2010 ~ 08:00
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Spoke with Carl Chavez from OCD in Santa Fe (505-476-3490), left a voicemail with OCD Artesia Office (575-748-1283 extension 102), and left a voicemail with Hope Monzeglio from the NMED Haz Waste Bureau (505-476-6045).	
By Whom? Aaron Strange	Date and Hour: 09/28/2010 at ~07:31 to Carl Chavez (OCD Santa Fe), 09/28/2010 at ~08:12 to the OCD Artesia office, and 09/28/2010 at ~08:16 to NMED Haz Waste Bureau.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 09/27/2010 at ~ 08:00 a leak was found between the Chukka and Gaines Injection Wells. The Effluent line was blocked in at the Waste Water Treater (inside the refinery) to stop the leak and repair the line. The leak was excavated and the line was clamped and is holding.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the effluent line between the Chukka and Gaines Injection Wells at ~ N32°45'54.5", W104°14'17.4". The leak was excavated to make repairs and the soil was placed into roll-off bins. The leak did not stain the soil; however Navajo will dispose of the excavated soil per analytical results. Bottom Hole samples will be collected and tested for BTEX, Metals, and Anions. This leak was just a few feet from the leaks that occurred on 2/20/2010 and 4/15/2010.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 10/01/2010 Phone: 575-703-5057		

ALS Environmental

Date: *18-Oct-10*

Client: Navajo Refining Company
Project: WW Effluent
Sample ID: Leak from 9-27-10 #1
Collection Date: 10/7/2010 12:30 PM

Work Order: 1010346
Lab ID: 1010346-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			**SW8021B**			Analyst: **IGF**
Benzene	ND		0.0010	mg/Kg	1	10/12/2010 04:20 PM
Toluene	ND		0.0010	mg/Kg	1	10/12/2010 04:20 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	10/12/2010 04:20 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	10/12/2010 04:20 PM
Surr: 4-Bromofluorobenzene	*92.4*		*75-131*	*%REC*	1	10/12/2010 04:20 PM
Surr: Trifluorotoluene	*90.3*		*73-130*	*%REC*	1	10/12/2010 04:20 PM
MERCURY			**SW7471A**		Prep Date: **10/14/2010**	Analyst: **JCJ**
Mercury	**5.26**		**3.45**	**µg/Kg**	1	10/14/2010 03:40 PM
METALS			**SW6020**		Prep Date: **10/13/2010**	Analyst: **SKS**
Aluminum	**10,200**		**87.7**	**mg/Kg**	100	10/14/2010 09:33 PM
Antimony	ND		0.439	mg/Kg	1	10/14/2010 06:42 AM
Arsenic	**3.55**		**0.439**	**mg/Kg**	1	10/14/2010 06:42 AM
Barium	**134**		**43.9**	**mg/Kg**	100	10/14/2010 09:33 PM
Beryllium	**0.575**		**0.439**	**mg/Kg**	1	10/14/2010 06:42 AM
Cadmium	ND		0.439	mg/Kg	1	10/14/2010 06:42 AM
Calcium	**40,400**		**4,390**	**mg/Kg**	100	10/14/2010 09:33 PM
Chromium	**8.69**		**0.439**	**mg/Kg**	1	10/14/2010 06:42 AM
Cobalt	**3.61**		**0.439**	**mg/Kg**	1	10/14/2010 06:42 AM
Copper	**6.21**		**0.439**	**mg/Kg**	1	10/14/2010 06:42 AM
Iron	**6,830**		**43.9**	**mg/Kg**	1	10/14/2010 06:42 AM
Lead	**4.74**		**0.439**	**mg/Kg**	1	10/14/2010 06:42 AM
Magnesium	**9,320**		**43.9**	**mg/Kg**	1	10/14/2010 06:42 AM
Manganese	**255**		**43.9**	**mg/Kg**	100	10/14/2010 09:33 PM
Nickel	**7.85**		**0.439**	**mg/Kg**	1	10/14/2010 06:42 AM
Potassium	**2,670**		**43.9**	**mg/Kg**	1	10/14/2010 06:42 AM
Selenium	**0.701**		**0.439**	**mg/Kg**	1	10/14/2010 06:42 AM
Silver	ND		0.439	mg/Kg	1	10/14/2010 06:42 AM
Sodium	**689**		**43.9**	**mg/Kg**	1	10/14/2010 06:42 AM
Strontium	**221**		**43.9**	**mg/Kg**	100	10/14/2010 09:33 PM
Thallium	ND		0.439	mg/Kg	1	10/14/2010 06:42 AM
Vanadium	**16.3**		**0.439**	**mg/Kg**	1	10/14/2010 06:42 AM
Zinc	**21.0**		**0.439**	**mg/Kg**	1	10/14/2010 06:42 AM
ANIONS			**E300**		Prep Date: **10/13/2010**	Analyst: **DM**
Chloride	**146**		**4.98**	**mg/Kg**	1	10/14/2010 12:34 PM
Sulfate	**7,620**		**49.8**	**mg/Kg**	10	10/14/2010 04:11 PM
Surr: Selenate (surr)	*108*		*85-115*	*%REC*	10	10/14/2010 04:11 PM
Surr: Selenate (surr)	*109*		*85-115*	*%REC*	1	10/14/2010 12:34 PM

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

ALS Environmental

Date: *18-Oct-10*

Client: Navajo Refining Company
Project: WW Effluent
Sample ID: Leak from 9-27-10 #2
Collection Date: 10/7/2010 12:34 PM

Work Order: 1010346
Lab ID: 1010346-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			**SW8021B**			Analyst: **IGF**
Benzene	ND		0.0010	mg/Kg	1	10/12/2010 01:01 PM
Toluene	ND		0.0010	mg/Kg	1	10/12/2010 01:01 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	10/12/2010 01:01 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	10/12/2010 01:01 PM
Surr: 4-Bromofluorobenzene	*93.4*		*75-131*	*%REC*	1	10/12/2010 01:01 PM
Surr: Trifluorotoluene	*92.8*		*73-130*	*%REC*	1	10/12/2010 01:01 PM
MERCURY			**SW7471A**		Prep Date: **10/14/2010**	Analyst: **JCJ**
Mercury	**8.09**		**3.57**	**µg/Kg**	1	10/14/2010 03:42 PM
METALS			**SW6020**		Prep Date: **10/13/2010**	Analyst: **SKS**
Aluminum	**2,220**		**90.1**	**mg/Kg**	100	10/14/2010 09:39 PM
Antimony	ND		0.450	mg/Kg	1	10/14/2010 06:48 AM
Arsenic	**1.84**		**0.450**	**mg/Kg**	1	10/14/2010 06:48 AM
Barium	**174**		**45.0**	**mg/Kg**	100	10/14/2010 09:39 PM
Beryllium	ND		0.450	mg/Kg	1	10/14/2010 06:48 AM
Cadmium	ND		0.450	mg/Kg	1	10/14/2010 06:48 AM
Calcium	**54,000**		**4,500**	**mg/Kg**	100	10/14/2010 09:39 PM
Chromium	**2.52**		**0.450**	**mg/Kg**	1	10/14/2010 06:48 AM
Cobalt	**1.21**		**0.450**	**mg/Kg**	1	10/14/2010 06:48 AM
Copper	**1.86**		**0.450**	**mg/Kg**	1	10/14/2010 06:48 AM
Iron	**2,710**		**45.0**	**mg/Kg**	1	10/14/2010 06:48 AM
Lead	**2.08**		**0.450**	**mg/Kg**	1	10/14/2010 06:48 AM
Magnesium	**1,970**		**45.0**	**mg/Kg**	1	10/14/2010 06:48 AM
Manganese	**188**		**45.0**	**mg/Kg**	100	10/14/2010 09:39 PM
Nickel	**2.39**		**0.450**	**mg/Kg**	1	10/14/2010 06:48 AM
Potassium	**415**		**45.0**	**mg/Kg**	1	10/14/2010 06:48 AM
Selenium	ND		0.450	mg/Kg	1	10/14/2010 06:48 AM
Silver	ND		0.450	mg/Kg	1	10/14/2010 06:48 AM
Sodium	**195**		**45.0**	**mg/Kg**	1	10/14/2010 06:48 AM
Strontium	**119**		**0.450**	**mg/Kg**	1	10/14/2010 06:48 AM
Thallium	ND		0.450	mg/Kg	1	10/14/2010 06:48 AM
Vanadium	**6.30**		**0.450**	**mg/Kg**	1	10/14/2010 06:48 AM
Zinc	**6.76**		**0.450**	**mg/Kg**	1	10/14/2010 06:48 AM
ANIONS			**E300**		Prep Date: **10/13/2010**	Analyst: **DM**
Chloride	**58.0**		**4.92**	**mg/Kg**	1	10/14/2010 12:55 PM
Sulfate	**6,630**		**49.2**	**mg/Kg**	10	10/14/2010 04:32 PM
Surr: Selenate (surr)	*110*		*85-115*	*%REC*	10	10/14/2010 04:32 PM
Surr: Selenate (surr)	*109*		*85-115*	*%REC*	1	10/14/2010 12:55 PM

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

ALS Environmental

Date: *18-Oct-10*

Client: Navajo Refining Company
Project: WW Effluent
Sample ID: Leak from 9-27-10 #3
Collection Date: 10/7/2010 12:49 PM

Work Order: 1010346
Lab ID: 1010346-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			**SW8021B**			Analyst: **IGF**
Benzene	ND		0.0010	mg/Kg	1	10/12/2010 02:03 PM
Toluene	ND		0.0010	mg/Kg	1	10/12/2010 02:03 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	10/12/2010 02:03 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	10/12/2010 02:03 PM
Surr: 4-Bromofluorobenzene	*94.8*		*75-131*	*%REC*	1	10/12/2010 02:03 PM
Surr: Trifluorotoluene	*92.2*		*73-130*	*%REC*	1	10/12/2010 02:03 PM
MERCURY			**SW7471A**		Prep Date: **10/14/2010**	Analyst: **JCJ**
Mercury	**6.73**		**3.61**	**µg/Kg**	1	10/14/2010 03:44 PM
METALS			**SW6020**		Prep Date: **10/13/2010**	Analyst: **SKS**
Aluminum	**6,810**		**92.6**	**mg/Kg**	100	10/14/2010 09:45 PM
Antimony	ND		0.463	mg/Kg	1	10/14/2010 06:54 AM
Arsenic	**3.00**		**0.463**	**mg/Kg**	1	10/14/2010 06:54 AM
Barium	**73.3**		**0.463**	**mg/Kg**	1	10/14/2010 06:54 AM
Beryllium	ND		0.463	mg/Kg	1	10/14/2010 06:54 AM
Cadmium	ND		0.463	mg/Kg	1	10/14/2010 06:54 AM
Calcium	**79,800**		**4,630**	**mg/Kg**	100	10/14/2010 09:45 PM
Chromium	**5.65**		**0.463**	**mg/Kg**	1	10/14/2010 06:54 AM
Cobalt	**2.43**		**0.463**	**mg/Kg**	1	10/14/2010 06:54 AM
Copper	**4.62**		**0.463**	**mg/Kg**	1	10/14/2010 06:54 AM
Iron	**4,510**		**46.3**	**mg/Kg**	1	10/14/2010 06:54 AM
Lead	**3.76**		**0.463**	**mg/Kg**	1	10/14/2010 06:54 AM
Magnesium	**7,040**		**46.3**	**mg/Kg**	1	10/14/2010 06:54 AM
Manganese	**178**		**46.3**	**mg/Kg**	100	10/14/2010 09:45 PM
Nickel	**5.19**		**0.463**	**mg/Kg**	1	10/14/2010 06:54 AM
Potassium	**1,670**		**46.3**	**mg/Kg**	1	10/14/2010 06:54 AM
Selenium	**0.523**		**0.463**	**mg/Kg**	1	10/14/2010 06:54 AM
Silver	ND		0.463	mg/Kg	1	10/14/2010 06:54 AM
Sodium	**408**		**46.3**	**mg/Kg**	1	10/14/2010 06:54 AM
Strontium	**530**		**46.3**	**mg/Kg**	100	10/14/2010 09:45 PM
Thallium	ND		0.463	mg/Kg	1	10/14/2010 06:54 AM
Vanadium	**11.0**		**0.463**	**mg/Kg**	1	10/14/2010 06:54 AM
Zinc	**14.3**		**0.463**	**mg/Kg**	1	10/14/2010 06:54 AM
ANIONS			**E300**		Prep Date: **10/13/2010**	Analyst: **DM**
Chloride	**50.9**		**4.93**	**mg/Kg**	1	10/14/2010 01:17 PM
Sulfate	**12,100**		**493**	**mg/Kg**	100	10/14/2010 04:54 PM
Surr: Selenate (surr)	*110*		*85-115*	*%REC*	100	10/14/2010 04:54 PM
Surr: Selenate (surr)	*107*		*85-115*	*%REC*	1	10/14/2010 01:17 PM

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

ALS Environmental **Date:** *18-Oct-10*

Client: Navajo Refining Company
Project: WW Effluent **Work Order:** 1010346
Sample ID: Leak from 9-27-10 #4 **Lab ID:** 1010346-04
Collection Date: 10/7/2010 01:02 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			**SW8021B**			Analyst: **IGF**
Benzene	ND		0.0010	mg/Kg	1	10/12/2010 02:24 PM
Toluene	ND		0.0010	mg/Kg	1	10/12/2010 02:24 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	10/12/2010 02:24 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	10/12/2010 02:24 PM
Surr: 4-Bromofluorobenzene	*96.4*		*75-131*	*%REC*	1	10/12/2010 02:24 PM
Surr: Trifluorotoluene	*91.7*		*73-130*	*%REC*	1	10/12/2010 02:24 PM
MERCURY			**SW7471A**		Prep Date: **10/14/2010**	Analyst: **JCJ**
Mercury	**13.7**		**3.51**	**µg/Kg**	1	10/14/2010 03:46 PM
METALS			**SW6020**		Prep Date: **10/13/2010**	Analyst: **SKS**
Aluminum	**8,550**		**90.1**	**mg/Kg**	100	10/14/2010 09:51 PM
Antimony	ND		0.450	mg/Kg	1	10/14/2010 07:00 AM
Arsenic	**4.45**		**0.450**	**mg/Kg**	1	10/14/2010 07:00 AM
Barium	**86.8**		**0.450**	**mg/Kg**	1	10/14/2010 07:00 AM
Beryllium	ND		0.450	mg/Kg	1	10/14/2010 07:00 AM
Cadmium	ND		0.450	mg/Kg	1	10/14/2010 07:00 AM
Calcium	**53,900**		**4,500**	**mg/Kg**	100	10/14/2010 09:51 PM
Chromium	**7.28**		**0.450**	**mg/Kg**	1	10/14/2010 07:00 AM
Cobalt	**3.29**		**0.450**	**mg/Kg**	1	10/14/2010 07:00 AM
Copper	**7.54**		**0.450**	**mg/Kg**	1	10/14/2010 07:00 AM
Iron	**6,010**		**45.0**	**mg/Kg**	1	10/14/2010 07:00 AM
Lead	**4.56**		**2.25**	**mg/Kg**	5	10/14/2010 07:42 PM
Magnesium	**5,720**		**45.0**	**mg/Kg**	1	10/14/2010 07:00 AM
Manganese	**127**		**0.450**	**mg/Kg**	1	10/14/2010 07:00 AM
Nickel	**7.05**		**0.450**	**mg/Kg**	1	10/14/2010 07:00 AM
Potassium	**2,200**		**45.0**	**mg/Kg**	1	10/14/2010 07:00 AM
Selenium	**0.683**		**0.450**	**mg/Kg**	1	10/14/2010 07:00 AM
Silver	ND		0.450	mg/Kg	1	10/14/2010 07:00 AM
Sodium	**332**		**45.0**	**mg/Kg**	1	10/14/2010 07:00 AM
Strontium	**135**		**0.450**	**mg/Kg**	1	10/14/2010 07:00 AM
Thallium	ND		2.25	mg/Kg	5	10/14/2010 07:42 PM
Vanadium	**12.7**		**0.450**	**mg/Kg**	1	10/14/2010 07:00 AM
Zinc	**17.7**		**0.450**	**mg/Kg**	1	10/14/2010 07:00 AM
ANIONS			**E300**		Prep Date: **10/13/2010**	Analyst: **DM**
Chloride	**89.6**		**4.97**	**mg/Kg**	1	10/14/2010 01:39 PM
Sulfate	**11,900**		**497**	**mg/Kg**	100	10/14/2010 05:16 PM
Surr: Selenate (surr)	*110*		*85-115*	*%REC*	100	10/14/2010 05:16 PM
Surr: Selenate (surr)	*108*		*85-115*	*%REC*	1	10/14/2010 01:39 PM

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

ALS Environmental

Date: *18-Oct-10*

Client: Navajo Refining Company
Project: WW Effluent
Work Order: 1010346
Sample ID: Background N32 46' 05.6"-W104 13' 42.0"
Lab ID: 1010346-05
Collection Date: 10/7/2010 01:10 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			**SW8021B**			Analyst: **IGF**
Benzene	ND		0.0010	mg/Kg	1	10/12/2010 02:45 PM
Toluene	ND		0.0010	mg/Kg	1	10/12/2010 02:45 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	10/12/2010 02:45 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	10/12/2010 02:45 PM
Surr: 4-Bromofluorobenzene	*91.7*		*75-131*	*%REC*	1	10/12/2010 02:45 PM
Surr: Trifluorotoluene	*89.5*		*73-130*	*%REC*	1	10/12/2010 02:45 PM
MERCURY			**SW7471A**		Prep Date: **10/14/2010**	Analyst: **JCJ**
Mercury	**11.4**		**3.46**	**µg/Kg**	1	10/14/2010 03:32 PM
METALS			**SW6020**		Prep Date: **10/13/2010**	Analyst: **SKS**
Aluminum	**7,740**		**90.1**	**mg/Kg**	100	10/14/2010 09:58 PM
Antimony	ND		0.450	mg/Kg	1	10/14/2010 07:06 AM
Arsenic	**1.92**		**0.450**	**mg/Kg**	1	10/14/2010 07:06 AM
Barium	**63.5**		**0.450**	**mg/Kg**	1	10/14/2010 07:06 AM
Beryllium	ND		0.450	mg/Kg	1	10/14/2010 07:06 AM
Cadmium	ND		0.450	mg/Kg	1	10/14/2010 07:06 AM
Calcium	**21,000**		**4,500**	**mg/Kg**	100	10/14/2010 09:58 PM
Chromium	**6.53**		**0.450**	**mg/Kg**	1	10/14/2010 07:06 AM
Cobalt	**2.49**		**0.450**	**mg/Kg**	1	10/14/2010 07:06 AM
Copper	**5.23**		**0.450**	**mg/Kg**	1	10/14/2010 07:06 AM
Iron	**5,960**		**45.0**	**mg/Kg**	1	10/14/2010 07:06 AM
Lead	**5.83**		**0.450**	**mg/Kg**	1	10/14/2010 07:06 AM
Magnesium	**2,790**		**45.0**	**mg/Kg**	1	10/14/2010 07:06 AM
Manganese	**140**		**0.450**	**mg/Kg**	1	10/14/2010 07:06 AM
Nickel	**5.89**		**0.450**	**mg/Kg**	1	10/14/2010 07:06 AM
Potassium	**1,840**		**45.0**	**mg/Kg**	1	10/14/2010 07:06 AM
Selenium	ND		0.450	mg/Kg	1	10/14/2010 07:06 AM
Silver	ND		0.450	mg/Kg	1	10/14/2010 07:06 AM
Sodium	ND		45.0	mg/Kg	1	10/14/2010 07:06 AM
Strontium	**23.7**		**0.450**	**mg/Kg**	1	10/14/2010 07:06 AM
Thallium	ND		0.450	mg/Kg	1	10/14/2010 07:06 AM
Vanadium	**8.36**		**0.450**	**mg/Kg**	1	10/14/2010 07:06 AM
Zinc	**18.9**		**0.450**	**mg/Kg**	1	10/14/2010 07:06 AM
ANIONS			**E300**		Prep Date: **10/13/2010**	Analyst: **DM**
Chloride	**5.54**		**4.91**	**mg/Kg**	1	10/14/2010 02:44 PM
Sulfate	**28.9**		**4.91**	**mg/Kg**	1	10/14/2010 02:44 PM
Surr: Selenate (surr)	*110*		*85-115*	*%REC*	1	10/14/2010 02:44 PM

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

ALS Environmental

Date: *12-Oct-10*

Client: Navajo Refining Company
Project: Disposal
Sample ID: WW Effluent Leak
Collection Date: 9/29/2010 02:33 PM

Work Order: 10091037
Lab ID: 10091037-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY			**SW7470**		Prep Date: **10/6/2010**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	10/6/2010 04:11 PM
TCLP METALS			**SW1311/6020**		Prep Date: **10/7/2010**	Analyst: **ALR**
Arsenic	ND		0.0500	mg/L	10	10/8/2010 06:34 AM
Barium	**0.166**		**0.0500**	**mg/L**	10	10/8/2010 06:34 AM
Cadmium	ND		0.0500	mg/L	10	10/8/2010 06:34 AM
Chromium	ND		0.0500	mg/L	10	10/8/2010 06:34 AM
Lead	ND		0.0500	mg/L	10	10/8/2010 06:34 AM
Selenium	ND		0.0500	mg/L	10	10/8/2010 06:34 AM
Silver	ND		0.0500	mg/L	10	10/8/2010 06:34 AM
TCLP SEMIVOLATILES			**SW1311/8270**		Prep Date: **10/6/2010**	Analyst: **ACN**
2,4,5-Trichlorophenol	ND		5.0	µg/L	1	10/7/2010 05:07 PM
2,4,6-Trichlorophenol	ND		5.0	µg/L	1	10/7/2010 05:07 PM
2,4-Dinitrotoluene	ND		5.0	µg/L	1	10/7/2010 05:07 PM
Cresols, Total	ND		15	µg/L	1	10/7/2010 05:07 PM
Hexachlorobenzene	ND		5.0	µg/L	1	10/7/2010 05:07 PM
Hexachlorobutadiene	ND		5.0	µg/L	1	10/7/2010 05:07 PM
Hexachloroethane	ND		5.0	µg/L	1	10/7/2010 05:07 PM
Nitrobenzene	ND		5.0	µg/L	1	10/7/2010 05:07 PM
Pentachlorophenol	ND		5.0	µg/L	1	10/7/2010 05:07 PM
Pyridine	ND		5.0	µg/L	1	10/7/2010 05:07 PM
Surr: 2,4,6-Tribromophenol	*50.5*		*42-124*	*%REC*	1	10/7/2010 05:07 PM
Surr: 2-Fluorobiphenyl	*49.1*		*48-120*	*%REC*	1	10/7/2010 05:07 PM
Surr: 2-Fluorophenol	*38.9*		*20-120*	*%REC*	1	10/7/2010 05:07 PM
Surr: 4-Terphenyl-d14	*67.3*		*51-135*	*%REC*	1	10/7/2010 05:07 PM
Surr: Nitrobenzene-d5	*42.3*		*41-120*	*%REC*	1	10/7/2010 05:07 PM
Surr: Phenol-d6	*37.2*		*20-120*	*%REC*	1	10/7/2010 05:07 PM
TCLP VOLATILES			**SW1311/8260B**		Prep Date: **10/6/2010**	Analyst: **PC**
1,1-Dichloroethene	ND		100	µg/L	20	10/7/2010 04:32 PM
1,2-Dichloroethane	ND		100	µg/L	20	10/7/2010 04:32 PM
1,4-Dichlorobenzene	ND		100	µg/L	20	10/7/2010 04:32 PM
2-Butanone	ND		200	µg/L	20	10/7/2010 04:32 PM
Benzene	**330**		**100**	**µg/L**	20	10/7/2010 04:32 PM
Carbon tetrachloride	ND		100	µg/L	20	10/7/2010 04:32 PM
Chlorobenzene	ND		100	µg/L	20	10/7/2010 04:32 PM
Chloroform	ND		100	µg/L	20	10/7/2010 04:32 PM
Tetrachloroethene	ND		100	µg/L	20	10/7/2010 04:32 PM
Trichloroethene	ND		100	µg/L	20	10/7/2010 04:32 PM

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

Client: Navajo Refining Company
Project: Disposal **Work Order:** 10091037
Sample ID: WW Effluent Leak **Lab ID:** 10091037-02
Collection Date: 9/29/2010 02:33 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Vinyl chloride	ND		100	µg/L	20	10/7/2010 04:32 PM
Surr: 1,2-Dichloroethane-d4	*101*		*70-125*	*%REC*	20	10/7/2010 04:32 PM
Surr: 4-Bromofluorobenzene	*99.0*		*72-125*	*%REC*	20	10/7/2010 04:32 PM
Surr: Dibromofluoromethane	*95.5*		*71-125*	*%REC*	20	10/7/2010 04:32 PM
Surr: Toluene-d8	*99.6*		*75-125*	*%REC*	20	10/7/2010 04:32 PM
REACTIVE CYANIDE			**SW-846**			Analyst: **HN**
Reactive Cyanide	ND		40.0	mg/Kg	1	10/5/2010 08:30 AM
REACTIVE SULFIDE			**SW-846**			Analyst: **HN**
Reactive Sulfide	ND		40.0	mg/Kg	1	10/5/2010 08:30 AM
IGNITABILITY			**SW1030**			Analyst: **JLC**
Ignitability, Solid	**Negative**			**no unit**	1	10/5/2010 10:00 AM
PH			**SW9045B**			Analyst: **JLC**
pH	**7.80**		**0.100**	**pH Units**	1	10/11/2010 10:00 AM

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

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

Chain of Custody Form

Page ___ of ___

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 #: W1054

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Disposal	A	TCLP VOAs
Work Order		Project Number		B	TCLP semiVOAs
Company Name	Navajo Refining Co.	Bill To Company		C	TCLP metals
Send Report To	Aaron Strange	Invoice Attn		D	RCI
Address	P.O. BOX 159	Address		E	
				F	
City/State/Zip	Artesia NM 88211	City/State/Zip		G	
Phone	575-748-3311	Phone		H	
Fax	575-746-5451	Fax		I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	Soil SE of T-58	9-29-10	13:33	S	NO	1	X	X	X	X							
2	WW Effluent Leak	9-29-10	14:33	S	NO	1	X	X	X	X							
3	Temp Blank																
4	Trip Blank																
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Aaron Strange

Shipment Method: Fed Ex

Required Turnaround Time: (Check Box) ☐ Other ___
☑ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour

Results Due Date:

	Date:	Time:	
Relinquished by: Aaron Strange	9-29-10	1615	Received by: 9/30/10 08:45
Relinquished by:	Date:	Time:	Received by (Laboratory):
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

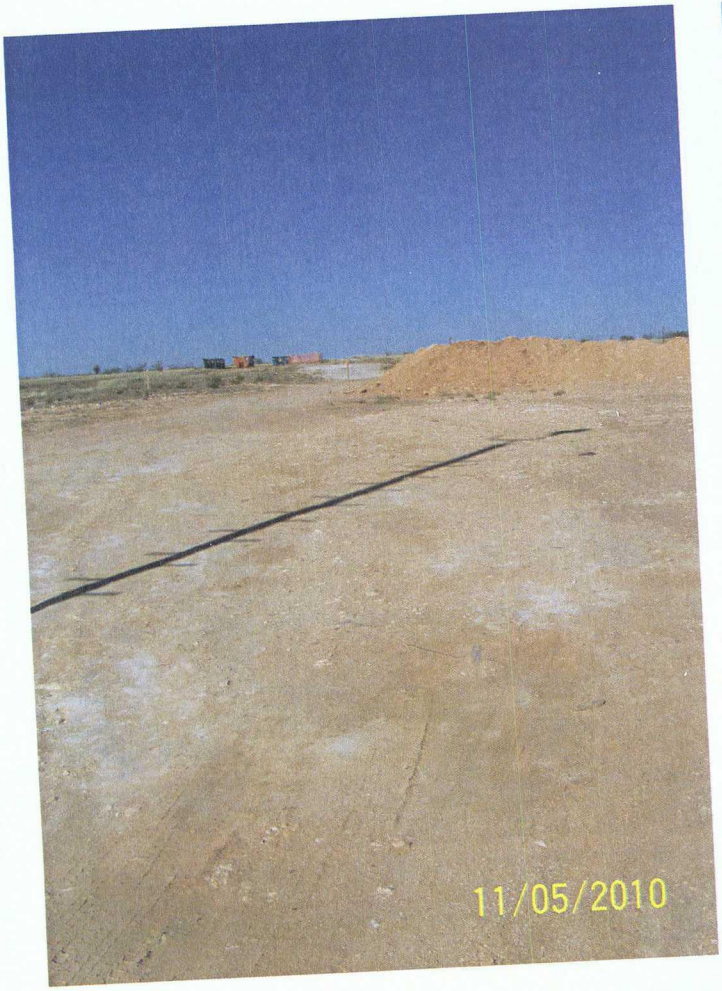
Notes:

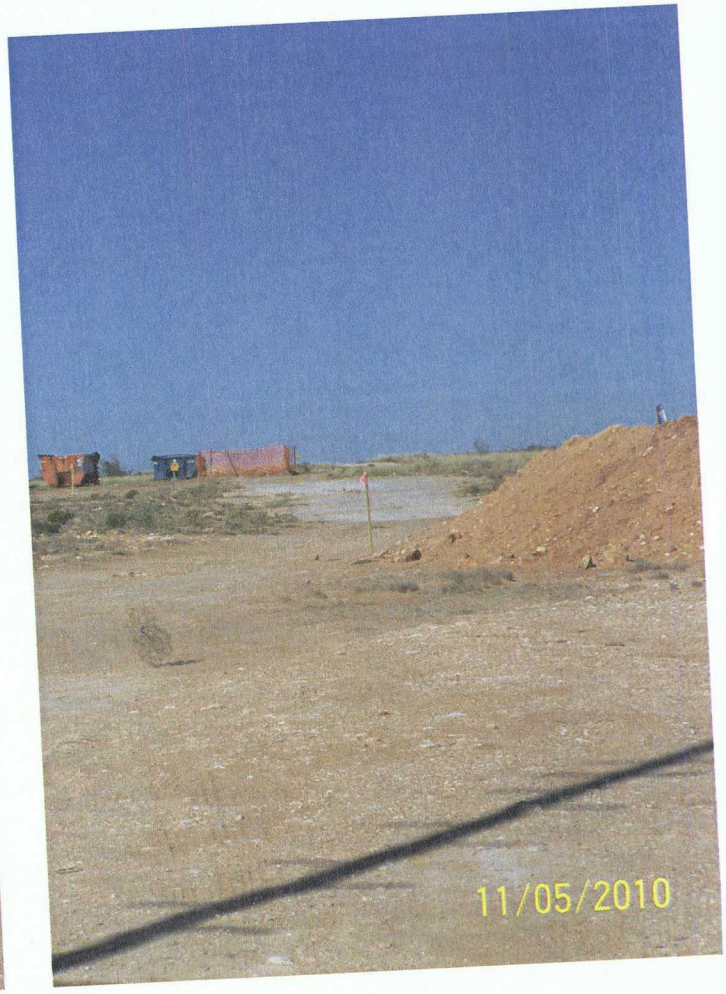
Cooler ID	Cooler Temp

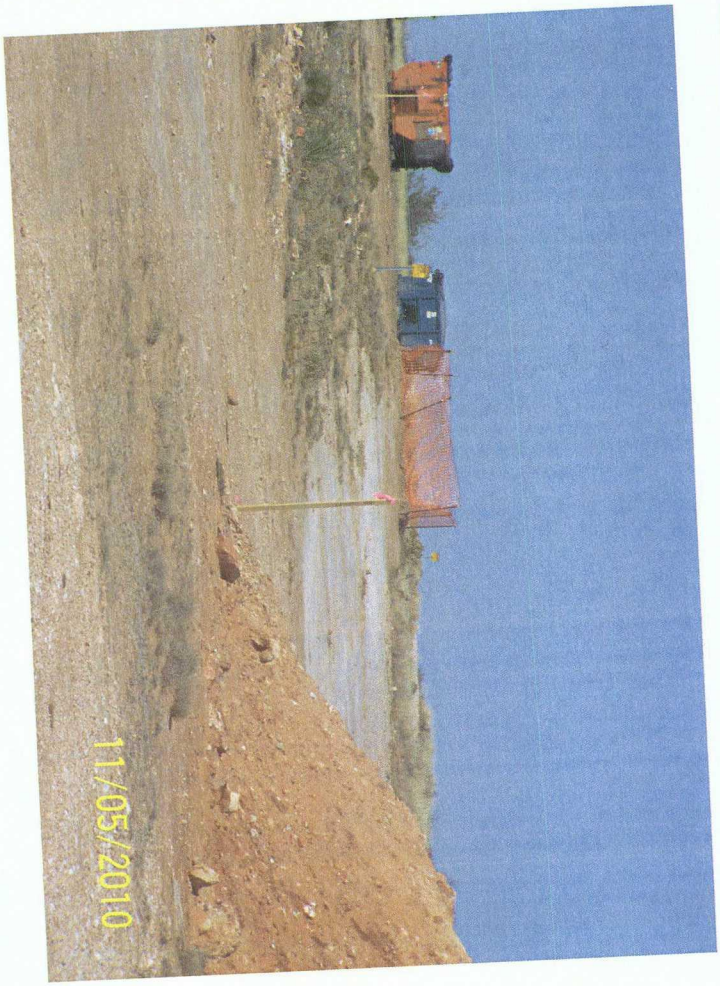
QC Package: (Check One Box Below)
☐ Level II Std QC
☐ Level III Std QC/Raw Date
☐ Level IV SW846/CLP
☐ TRRP Checklist
☐ TRRP Level IV
☐ Other ___

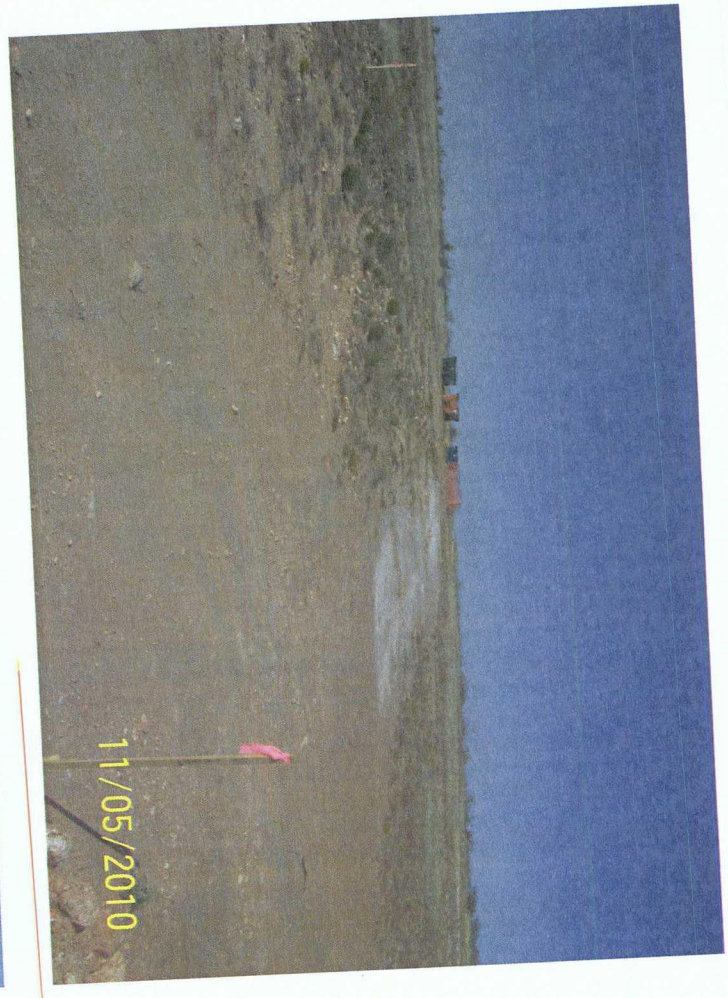
Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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


11/05/2010


11/05/2010


11/05/2010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11/05/2010

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Plant	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude ~N32°45'54.5" **Longitude** ~W104°14'17.4"

NATURE OF RELEASE

Type of Release: Leak of JP8 (Jet Fuel) from underground line	Volume of Release: Unknown	Volume Recovered: ~0 barrels
Source of Release: Hole in JP8 line under Freeman Street	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: 10/25/2010 ~ 11:00
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Spoke with Carl Chavez from OCD in Santa Fe (505-476-3490), Left voicemail with OCD Artesia Office (575-748-1283 extension 102), and left a voicemail with Hope Monzeglio from the NMED Haz Waste Bureau (505-476-6045).	
By Whom? Aaron Strange	Date and Hour: 10/26/2010 at ~09:32 to Carl Chavez (OCD Santa Fe), 10/26/2010 at ~09:37 to the OCD Artesia office, and 10/26/2010 at ~09:41 to NMED Haz Waste Bureau.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 10/25/2010 at ~ 11:00 a leak was found on the JP8 (Jet Fuel) line going to T-835. A leak was suspected when ~13 feet of hydrocarbon was found in Monitoring Well # 94. Navajo pressure tested the suspected lines and found a leak in the section of the JP8 line that runs under Freeman Street. The leaking section of underground line was pumped out then removed and replaced with new pipe.

Describe Area Affected and Cleanup Action Taken.*
The area affected starts where the JP8 line goes under Freeman Street and heads east. This is located East of the Diesel Booster pumps and just southwest of Monitoring Well # 94. Navajo has gauged several nearby wells (RW-8, NCL-34, MW-67, MW-41, and MW-43) as requested by NMED and have only found hydrocarbon in MW-94 and RW-8. Navajo has started to pump MW # 94 and will also be pumping Recovery Well # 8 as part remediation effort. The product did not come to the service of the ground. No soil other than what was excavated to replace the leaking section of line was removed.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 10/29/2010 Phone: 575-703-5057		

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Plant	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude ~N32°45'54.5" **Longitude** ~W104°14'17.4"

NATURE OF RELEASE

Type of Release: Leak of JP8 (Jet Fuel) from underground line	Volume of Release: Unknown	Volume Recovered: ~0 barrels
Source of Release: Hole in JP8 line under Freeman Street	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: 10/25/2010 ~ 11:00
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Spoke with Carl Chavez from OCD in Santa Fe (505-476-3490), Left voicemail with OCD Artesia Office (575-748-1283 extension 102), and left a voicemail with Hope Monzeglio from the NMED Haz Waste Bureau (505-476-6045).	
By Whom? Aaron Strange	Date and Hour: 10/26/2010 at ~09:32 to Carl Chavez (OCD Santa Fe), 10/26/2010 at ~09:37 to the OCD Artesia office, and 10/26/2010 at ~09:41 to NMED Haz Waste Bureau.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

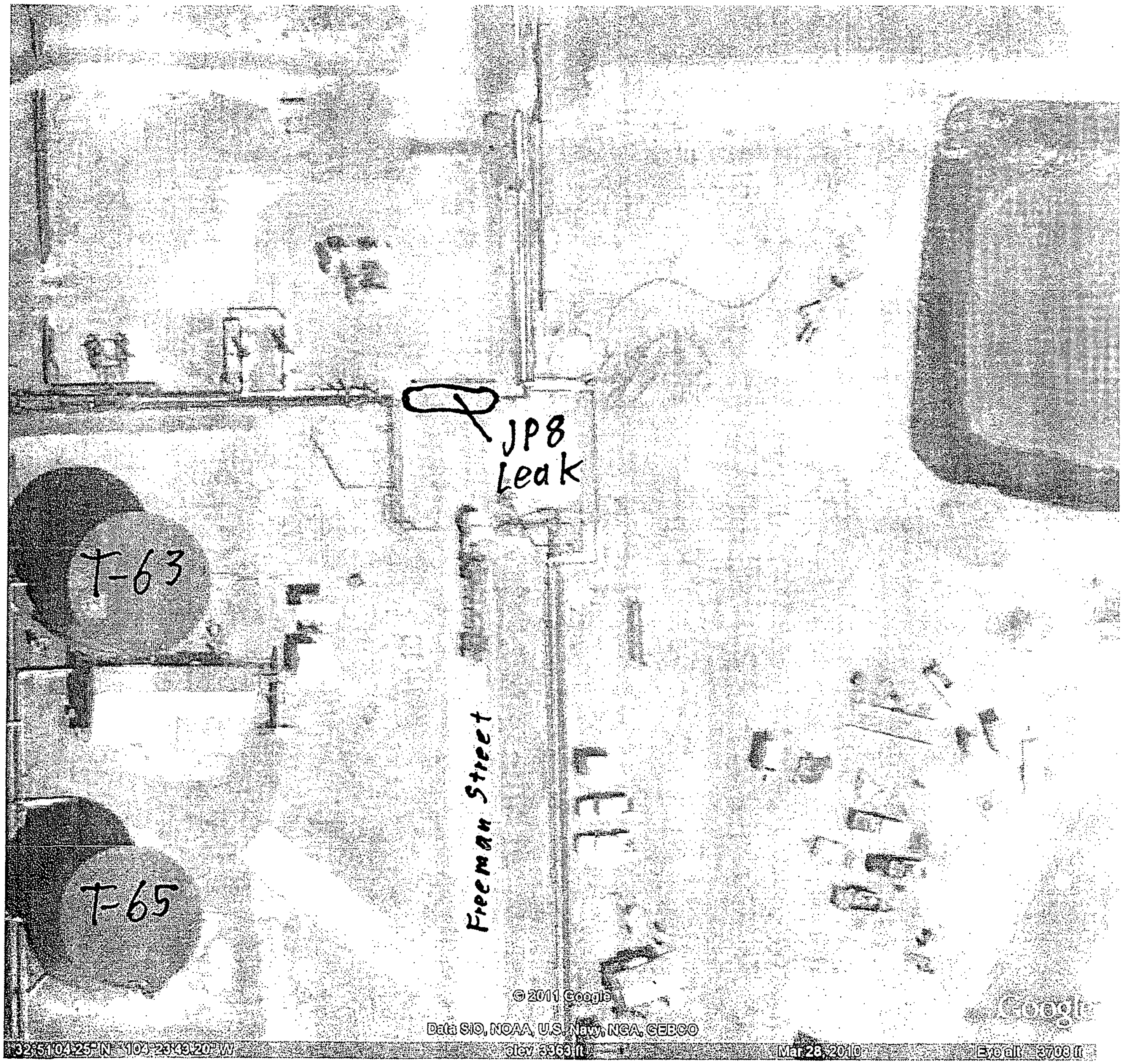
If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 10/25/2010 at ~ 11:00 a leak was found on the JP8 (Jet Fuel) line going to T-835. A leak was suspected when ~13 feet of hydrocarbon was found in Monitoring Well # 94. Navajo pressure tested the suspected lines and found a leak in the section of the JP8 line that runs under Freeman Street. The leaking section of underground line was pumped out then removed and replaced with new pipe.

Describe Area Affected and Cleanup Action Taken.*
The area affected starts where the JP8 line goes under Freeman Street and heads east. This is located East of the Diesel Booster pumps and just southwest of Monitoring Well # 94. Navajo has gauged several nearby wells (RW-8, NCL-34, MW-67, MW-41, and MW-43) as requested by NMED and have only found hydrocarbon in MW-94 and RW-8. Navajo has started to pump MW # 94 and will also be pumping Recovery Well # 8 as part remediation effort. The product did not come to the service of the ground. No soil other than what was excavated to replace the leaking section of line was removed.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 10/29/2010 Phone: 575-703-5057		


JP8 Leak
T-63
T-65
Freeman Street
© 2011 Google
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
32°51'04.25" N 104°23'43.20" W
elev 3363 ft
Mar 28, 2010
Eye alt 3708 ft
Google

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Plant	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude _____ **Longitude** _____

NATURE OF RELEASE

Type of Release: Spill of Waste Water from ALKY Tar Pit (API Separator)	Volume of Release: ~ 23 barrels	Volume Recovered: ~ 20 barrels
Source of Release: Plastic line (Fast Line) from diaphragm pump	Date and Hour of Occurrence: 11/05/2010 ~ 14:25	Date and Hour of Discovery: 11/05/2010 ~ 14:30
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left a voicemail with Hope Monzeglio from the NMED Haz Waste Bureau (505-476-6000), left a voicemail with Carl Chavez from OCD in Santa Fe (505-476-3490), and spoke with Randy Dade at the OCD Artesia Office (575-748-1283 extension 102).	
By Whom? Aaron Strange	Date and Hour: 11/08/2010 at ~10:43 to NMED Haz Waste Bureau, 11/08/2010 at ~10:32 to OCD Santa Fe, and 11/08/2010 at ~10:51 to the OCD Artesia office.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 11/05/2010 at ~ 14:30 an operator noticed water on the ground in the Waste Water Treater (Unit 80). A plastic line (Fast Line) coming from a diaphragm pump was being used to bypass the water side of the ALKY tar pit (API separator) to work on a plugged sewer line. The line was place into a sewer cleanout, but backed out and pumped onto the ground. The pump was turned off and the line was place back into the sewer cleanout. The line was also tied down to keep it from backing out.

Describe Area Affected and Cleanup Action Taken.*
The area affected starts at the sewer cleanout south of Tank 801 where it ran east toward the TEL impoundment. It then ran north along the berm on the outside of the TEL impoundment. A vacuum truck removed ~ 20 barrels of standing water. There were no visual signs of oil or stained soil, however the wet/contaminated soil was placed into roll-off bins. The recovered water was placed into the Oily Water Sewer. The soil will be disposed of as F-037 (Listed Hazardous Waste). Bottom Hole samples will be collected.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 11/10/2010 Phone: 575-703-5057		

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

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Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Plant	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude _____ **Longitude** _____

NATURE OF RELEASE

Type of Release: Spill of Waste Water from ALKY Tar Pit (API Separator)	Volume of Release: ~ 23 barrels	Volume Recovered: ~ 20 barrels
Source of Release: Plastic line (Fast Line) from diaphragm pump	Date and Hour of Occurrence: 11/05/2010 ~ 14:25	Date and Hour of Discovery: 11/05/2010 ~ 14:30
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left a voicemail with Hope Monzeglio from the NMED Haz Waste Bureau (505-476-6000), left a voicemail with Carl Chavez from OCD in Santa Fe (505-476-3490), and spoke with Randy Dade at the OCD Artesia Office (575-748-1283 extension 102).	
By Whom? Aaron Strange	Date and Hour: 11/08/2010 at ~10:43 to NMED Haz Waste Bureau, 11/08/2010 at ~10:32 to OCD Santa Fe, and 11/08/2010 at ~10:51 to the OCD Artesia office.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 11/05/2010 at ~ 14:30 an operator noticed water on the ground in the Waste Water Treater (Unit 80). A plastic line (Fast Line) coming from a diaphragm pump was being used to bypass the water side of the ALKY tar pit (API separator) to work on a plugged sewer line. The line was place into a sewer cleanout, but backed out and pumped onto the ground. The pump was turned off and the line was place back into the sewer cleanout. The line was also tied down to keep it from backing out.

Describe Area Affected and Cleanup Action Taken.*
The area affected starts at the sewer cleanout south of Tank 801 where it ran east toward the TEL impoundment. It then ran north along the berm on the outside of the TEL impoundment. A vacuum truck removed ~ 20 barrels of standing water. There were no visual signs of oil or stained soil, however the wet/contaminated soil was placed into roll-off bins. The recovered water was placed into the Oily Water Sewer. The soil will be disposed of as F-037 (Listed Hazardous Waste). Bottom Hole samples will be collected.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 11/10/2010 Phone: 575-703-5057		

ALS Environmental

Date: *14-Dec-10*

Client: Navajo Refining Company
Project: Tar Pit Spill
Work Order: 1011924
Sample ID: #1
Lab ID: 1011924-01
Collection Date: 11/23/2010 02:08 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			**SW8015M**		Prep Date: **11/30/2010**	Analyst: **SE**
TPH (Gasoline Range)	ND		50	mg/Kg	1	12/2/2010 12:44 AM
TPH (Diesel Range)	ND		50	mg/Kg	1	12/2/2010 12:44 AM
Surr: 2-Fluorobiphenyl	*99.5*		*70-130*	*%REC*	1	12/2/2010 12:44 AM
Surr: Trifluoromethyl benzene	*97.4*		*70-130*	*%REC*	1	12/2/2010 12:44 AM
MERCURY			**SW7471A**		Prep Date: **11/30/2010**	Analyst: **JCJ**
Mercury	**18.4**		**3.55**	**µg/Kg**	1	11/30/2010 07:41 PM
METALS			**SW6020**		Prep Date: **11/30/2010**	Analyst: **SKS**
Arsenic	**3.34**		**0.490**	**mg/Kg**	1	12/2/2010 04:56 PM
Barium	**142**		**0.490**	**mg/Kg**	1	12/2/2010 04:56 PM
Cadmium	ND		0.490	mg/Kg	1	12/2/2010 04:56 PM
Chromium	**6.04**		**0.490**	**mg/Kg**	1	12/2/2010 04:56 PM
Lead	**9.59**		**0.490**	**mg/Kg**	1	12/2/2010 04:56 PM
Selenium	**0.789**		**0.490**	**mg/Kg**	1	12/2/2010 04:56 PM
Silver	ND		0.490	mg/Kg	1	12/2/2010 04:56 PM

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

ALS Environmental

Date: *14-Dec-10*

Client: Navajo Refining Company
Project: Tar Pit Spill
Work Order: 1011924
Sample ID: #2
Lab ID: 1011924-02
Collection Date: 11/23/2010 02:11 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			**SW8015M**		Prep Date: **11/30/2010**	Analyst: **SE**
TPH (Gasoline Range)	ND		50	mg/Kg	1	12/2/2010 02:17 AM
TPH (Diesel Range)	ND		50	mg/Kg	1	12/2/2010 02:17 AM
Surr: 2-Fluorobiphenyl	*87.7*		*70-130*	*%REC*	1	12/2/2010 02:17 AM
Surr: Trifluoromethyl benzene	*87.8*		*70-130*	*%REC*	1	12/2/2010 02:17 AM
MERCURY			**SW7471A**		Prep Date: **11/30/2010**	Analyst: **JCJ**
Mercury	**12.2**		**3.46**	**µg/Kg**	1	11/30/2010 07:43 PM
METALS			**SW6020**		Prep Date: **11/30/2010**	Analyst: **SKS**
Arsenic	**3.76**		**0.446**	**mg/Kg**	1	12/2/2010 05:39 PM
Barium	**140**		**0.446**	**mg/Kg**	1	12/2/2010 05:39 PM
Cadmium	ND		0.446	mg/Kg	1	12/2/2010 05:39 PM
Chromium	**7.59**		**0.446**	**mg/Kg**	1	12/2/2010 05:39 PM
Lead	**23.9**		**0.446**	**mg/Kg**	1	12/2/2010 05:39 PM
Selenium	**1.50**		**0.446**	**mg/Kg**	1	12/2/2010 05:39 PM
Silver	ND		0.446	mg/Kg	1	12/2/2010 05:39 PM

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

ALS Environmental

Date: *14-Dec-10*

Client: Navajo Refining Company
Project: Tar Pit Spill
Work Order: 1011924
Sample ID: #3
Lab ID: 1011924-03
Collection Date: 11/23/2010 02:16 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			**SW8015M**		Prep Date: **11/30/2010**	Analyst: **SE**
TPH (Gasoline Range)	ND		50	mg/Kg	1	12/2/2010 02:48 AM
TPH (Diesel Range)	**170**		**50**	**mg/Kg**	1	12/2/2010 02:48 AM
Surr: 2-Fluorobiphenyl	*84.3*		*70-130*	*%REC*	1	12/2/2010 02:48 AM
Surr: Trifluoromethyl benzene	*87.3*		*70-130*	*%REC*	1	12/2/2010 02:48 AM
MERCURY			**SW7471A**		Prep Date: **11/30/2010**	Analyst: **JCJ**
Mercury	**38.6**		**3.37**	**µg/Kg**	1	11/30/2010 07:45 PM
METALS			**SW6020**		Prep Date: **11/30/2010**	Analyst: **SKS**
Arsenic	**5.20**		**0.450**	**mg/Kg**	1	12/2/2010 05:45 PM
Barium	**131**		**0.450**	**mg/Kg**	1	12/2/2010 05:45 PM
Cadmium	ND		0.450	mg/Kg	1	12/2/2010 05:45 PM
Chromium	**15.3**		**0.450**	**mg/Kg**	1	12/2/2010 05:45 PM
Lead	**46.2**		**0.450**	**mg/Kg**	1	12/2/2010 05:45 PM
Selenium	**1.60**		**0.450**	**mg/Kg**	1	12/2/2010 05:45 PM
Silver	ND		0.450	mg/Kg	1	12/2/2010 05:45 PM

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

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

Chain of Custody Form

Page 1 of 1

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

101924

ALS Project Manager: | ALS Work Order #: ~~10112S~~ RLS 11/24/10

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Tar Pit Spill	A	DRO
Work Order		Project Number		B	GRO
Company Name	Navajo Refining Co	Bill To Company		C	RCRA Metals
Send Report To	Aaron Strange	Invoice Attn		D	
Address	PO Box 159	Address		E	If GRO Greater than 50 mg/Kg run VOCs
				F	If DRO Greater than 200 mg/Kg run SVOCs
City/State/Zip	Artesia NM 88211	City/State/Zip		G	
Phone	575-748-3311	Phone		H	
Fax	575-746-5451	Fax		I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	#1	11/23/10	1408	L	No	1	X	X	X		X	X					
2	#2	11/23/10	1411	L	No	1	X	X	X		X	X					
3	#3	11/23/10	1416	L	No	1	X	X	X		X	X					
4	Temp blank																
5	Trip blank																
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Aaron Strange

Shipment Method: Fed Ex

Required Turnaround Time: (Check Box) ☐ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☐ Other

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Aaron Strange	11-23-10	1615	
Relinquished by:	Date:	Time:	Received by (Laboratory):
	11-24-10	0850	RN ALS
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

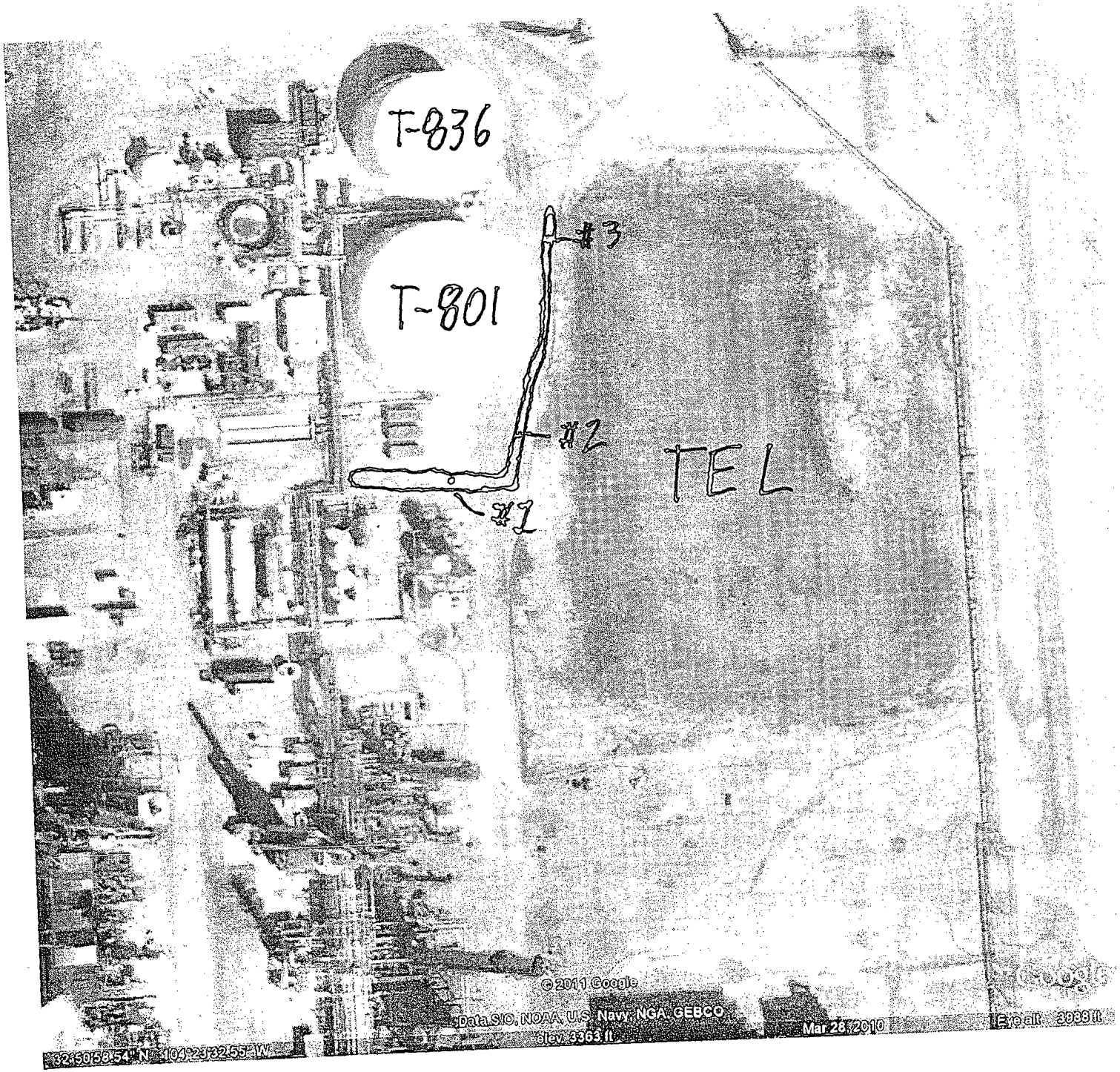
Notes:

Cooler ID	Cooler Temp

QC Package: (Check One Box Below)
☐ Level II Std QC
☐ Level III Std QC/Raw Date
☐ 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.
3. The Chain of Custody is a legal document. All information must be completed accurately.


T-836
T-801
#3
#2
#1
TEL
© 2011 Google
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Mar 28, 2010
Eye alt 3938 ft
Elev 3363 ft
32°50'58.54" N 104°23'32.55" W

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NMD048918817	1	1-800-424-9300	003226301 FLE

5. Generator's Name and Mailing Address
Navajo Refining Company
PO BOX 159
Artesia, NM 88211 0159
Generator's Phone: 575-748-3311 Darrell Moore

Generator's Site Address (if different than mailing address)
Navajo Refining Company
501 E. Main
Artesia, NM 88210

6. Transporter 1 Company Name: Fluid Transports, Inc.
U.S. EPA ID Number: TXD988057931

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
RINECO
1007 Vulcan Road
Benton, AR 72015
Facility's Phone: 501-778-6235
U.S. EPA ID Number: ARD981057870

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, NA3077, HAZARDOUS WASTE SOLID, NOS (F037), 9, PG III, (I)	1	CM	[illegible]	P	F037
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1. [illegible] F037 Tank Sludge LOAD# 186808
Load # 186[illegible] 9am Box # 20515

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible] Signature: [illegible] Month 12 Day 17 Year 16

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: [illegible] Signature: [illegible] Month Day Year
Transporter 2 Printed/Typed Name Signature Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H061			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name Signature Month Day Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Plant	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude _____ **Longitude** _____

NATURE OF RELEASE

Type of Release: Water spill	Volume of Release: ~ 30 barrels	Volume Recovered: 0 barrels
Source of Release: Y-12 Cooling Tower from water basin.	Date and Hour of Occurrence: 11/27/2010 ~ 12:00 am	Date and Hour of Discovery: 11/27/2010 ~ 12:30 am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left a voicemail with the NMED Haz Waste Bureau (505-476-6000), left a voicemail with Carl Chavez from OCD in Santa Fe (505-476-3490), and left a voicemail with Randy Dade at the OCD Artesia Office (575-748-1283 extension 102).	
By Whom? Johnny Lackey	Date and Hour: 11/27/2010 at ~07:45 to NMED Haz Waste Bureau, 11/27/2010 at ~07:48 to OCD Santa Fe, and 11/27/2010 at ~07:50 to the OCD Artesia office.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 11/27/2010 at ~ 12:00 AM the Y-12 Cooling Tower overflowed from the water basin. Make-up water (City Water) was being added to the cooling tower basin. The RO water was blocked in during this event. An operator noticed water on the ground and immediately blocked in the city make up water and transferred the blow-down/condensate to the ALKY Cooling Tower to stop the spill.

Describe Area Affected and Cleanup Action Taken.*
The area affected starts on the north side of the Y-12 Cooling Tower where the water spread northeast then ran north along East 5th Street. The water soaked into the ground however there were no visual signs of oil or stained soil. Navajo will sample the soil per instructions from the OCD (Oil Conservation Division).

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 12/02/2010 Phone: 575-703-5057		

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Plant	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude _____ **Longitude** _____

NATURE OF RELEASE

Type of Release: Water spill	Volume of Release: ~ 30 barrels	Volume Recovered: 0 barrels
Source of Release: Y-12 Cooling Tower from water basin.	Date and Hour of Occurrence: 11/27/2010 ~ 12:00 am	Date and Hour of Discovery: 11/27/2010 ~ 12:30 am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left a voicemail with the NMED Haz Waste Bureau (505-476-6000), left a voicemail with Carl Chavez from OCD in Santa Fe (505-476-3490), and left a voicemail with Randy Dade at the OCD Artesia Office (575-748-1283 extension 102).	
By Whom? Johnny Lackey	Date and Hour: 11/27/2010 at ~07:45 to NMED Haz Waste Bureau, 11/27/2010 at ~07:48 to OCD Santa Fe, and 11/27/2010 at ~07:50 to the OCD Artesia office.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 11/27/2010 at ~ 12:00 AM the Y-12 Cooling Tower overflowed from the water basin. Make-up water (City Water) was being added to the cooling tower basin. The RO water was blocked in during this event. An operator noticed water on the ground and immediately blocked in the city make up water and transferred the blow-down/condensate to the ALKY Cooling Tower to stop the spill.

Describe Area Affected and Cleanup Action Taken.*
The area affected starts on the north side of the Y-12 Cooling Tower where the water spread northeast then ran north along East 5th Street. The water soaked into the ground however there were no visual signs of oil or stained soil. Navajo will sample the soil per instructions from the OCD (Oil Conservation Division).

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 12/02/2010 Phone: 575-703-5057		

ALS Environmental

Date: *23-Dec-10*

Client: Navajo Refining Company
Project: Y-12 Overflow
Work Order: 1012317
Sample ID: Composite #1
Lab ID: 1012317-01
Collection Date: 12/8/2010 01:28 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **12/15/2010**	Analyst: **SE**
nC6 to nC12	ND		49	mg/Kg	1	12/17/2010 02:20 PM
>nC12 to nC28	ND		49	mg/Kg	1	12/17/2010 02:20 PM
>nC28 to nC35	ND		49	mg/Kg	1	12/17/2010 02:20 PM
Total Petroleum Hydrocarbon	ND		49	mg/Kg	1	12/17/2010 02:20 PM
Surr: 2-Fluorobiphenyl	*106*		*70-130*	*%REC*	1	12/17/2010 02:20 PM
Surr: Trifluoromethyl benzene	*106*		*70-130*	*%REC*	1	12/17/2010 02:20 PM
MERCURY			**SW7471A**		Prep Date: **12/20/2010**	Analyst: **JCJ**
Mercury	**0.00616**		**0.00353**	**mg/Kg**	1	12/20/2010 11:01 PM
METALS			**SW6020**		Prep Date: **12/20/2010**	Analyst: **SKS**
Arsenic	**2.87**		**0.490**	**mg/Kg**	1	12/22/2010 05:30 AM
Barium	**122**		**0.490**	**mg/Kg**	1	12/22/2010 05:30 AM
Cadmium	ND		0.490	mg/Kg	1	12/22/2010 05:30 AM
Calcium	**213,000**		**4,900**	**mg/Kg**	100	12/22/2010 08:07 PM
Chromium	**10.6**		**0.490**	**mg/Kg**	1	12/22/2010 05:30 AM
Lead	**9.63**		**0.490**	**mg/Kg**	1	12/22/2010 05:30 AM
Magnesium	**5,490**		**49.0**	**mg/Kg**	1	12/22/2010 05:30 AM
Potassium	**1,060**		**49.0**	**mg/Kg**	1	12/22/2010 05:30 AM
Selenium	ND		0.490	mg/Kg	1	12/22/2010 05:30 AM
Silver	ND		0.490	mg/Kg	1	12/22/2010 05:30 AM
Sodium	**547**		**49.0**	**mg/Kg**	1	12/22/2010 05:30 AM
ANIONS			**E300**		Prep Date: **12/22/2010**	Analyst: **DM**
Chloride	**390**		**5.00**	**mg/Kg**	1	12/23/2010 10:46 AM
Fluoride	**4.26**		**1.00**	**mg/Kg**	1	12/23/2010 10:46 AM
Sulfate	**1,670**		**50.0**	**mg/Kg**	10	12/23/2010 11:59 AM
Surr: Selenate (surr)	*108*		*85-115*	*%REC*	10	12/23/2010 11:59 AM
Surr: Selenate (surr)	*107*		*85-115*	*%REC*	1	12/23/2010 10:46 AM

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

ALS Environmental

Date: *23-Dec-10*

Client: Navajo Refining Company
Project: Y-12 Overflow
Work Order: 1012317
Sample ID: Composite #2
Lab ID: 1012317-02
Collection Date: 12/8/2010 01:36 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **12/15/2010**	Analyst: **SE**
nC6 to nC12	ND		49	mg/Kg	1	12/16/2010 11:54 AM
>nC12 to nC28	ND		49	mg/Kg	1	12/16/2010 11:54 AM
>nC28 to nC35	ND		49	mg/Kg	1	12/16/2010 11:54 AM
Total Petroleum Hydrocarbon	ND		49	mg/Kg	1	12/16/2010 11:54 AM
Surr: 2-Fluorobiphenyl	*135*	S	*70-130*	*%REC*	1	12/16/2010 11:54 AM
Surr: Trifluoromethyl benzene	*148*	S	*70-130*	*%REC*	1	12/16/2010 11:54 AM
MERCURY			**SW7471A**		Prep Date: **12/20/2010**	Analyst: **JCJ**
Mercury	**0.334**		**0.00354**	**mg/Kg**	1	12/20/2010 11:03 PM
METALS			**SW6020**		Prep Date: **12/20/2010**	Analyst: **SKS**
Arsenic	**15.8**		**0.446**	**mg/Kg**	1	12/22/2010 05:38 AM
Barium	**97.4**		**0.446**	**mg/Kg**	1	12/22/2010 05:38 AM
Cadmium	ND		0.446	mg/Kg	1	12/22/2010 05:38 AM
Calcium	**67,600**		**4,460**	**mg/Kg**	100	12/22/2010 08:13 PM
Chromium	**21.2**		**0.446**	**mg/Kg**	1	12/22/2010 05:38 AM
Lead	**50.2**		**0.446**	**mg/Kg**	1	12/22/2010 05:38 AM
Magnesium	**6,270**		**44.6**	**mg/Kg**	1	12/22/2010 05:38 AM
Potassium	**2,860**		**44.6**	**mg/Kg**	1	12/22/2010 05:38 AM
Selenium	**0.855**		**0.446**	**mg/Kg**	1	12/22/2010 05:38 AM
Silver	ND		0.446	mg/Kg	1	12/22/2010 05:38 AM
Sodium	**176**		**44.6**	**mg/Kg**	1	12/22/2010 05:38 AM
ANIONS			**E300**		Prep Date: **12/22/2010**	Analyst: **DM**
Chloride	**61.3**		**5.04**	**mg/Kg**	1	12/23/2010 11:30 AM
Fluoride	**12.0**		**1.01**	**mg/Kg**	1	12/23/2010 11:30 AM
Sulfate	**680**		**5.04**	**mg/Kg**	1	12/23/2010 11:30 AM
Surr: Selenate (surr)	*108*		*85-115*	*%REC*	1	12/23/2010 11:30 AM

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

ALS Environmental

Date: *23-Dec-10*

Client: Navajo Refining Company
Project: Y-12 Overflow
Sample ID: Composite #3
Collection Date: 12/8/2010 01:59 PM

Work Order: 1012317
Lab ID: 1012317-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			**TX1005**		Prep Date: **12/15/2010**	Analyst: **SE**
nC6 to nC12	ND		50	mg/Kg	1	12/18/2010 06:45 AM
>nC12 to nC28	ND		50	mg/Kg	1	12/18/2010 06:45 AM
>nC28 to nC35	ND		50	mg/Kg	1	12/18/2010 06:45 AM
Total Petroleum Hydrocarbon	ND		50	mg/Kg	1	12/18/2010 06:45 AM
Surr: 2-Fluorobiphenyl	*118*		*70-130*	*%REC*	1	12/18/2010 06:45 AM
Surr: Trifluoromethyl benzene	*112*		*70-130*	*%REC*	1	12/18/2010 06:45 AM
MERCURY			**SW7471A**		Prep Date: **12/20/2010**	Analyst: **JCJ**
Mercury	**0.0862**		**0.00344**	**mg/Kg**	1	12/20/2010 11:05 PM
METALS			**SW6020**		Prep Date: **12/20/2010**	Analyst: **SKS**
Arsenic	**7.35**		**0.450**	**mg/Kg**	1	12/22/2010 05:45 AM
Barium	**200**		**4.50**	**mg/Kg**	10	12/22/2010 08:20 PM
Cadmium	**0.499**		**0.450**	**mg/Kg**	1	12/22/2010 05:45 AM
Calcium	**55,100**		**450**	**mg/Kg**	10	12/22/2010 08:20 PM
Chromium	**34.4**		**0.450**	**mg/Kg**	1	12/22/2010 05:45 AM
Lead	**157**		**0.450**	**mg/Kg**	1	12/22/2010 05:45 AM
Magnesium	**7,120**		**45.0**	**mg/Kg**	1	12/22/2010 05:45 AM
Potassium	**3,700**		**45.0**	**mg/Kg**	1	12/22/2010 05:45 AM
Selenium	**0.889**		**0.450**	**mg/Kg**	1	12/22/2010 05:45 AM
Silver	ND		0.450	mg/Kg	1	12/22/2010 05:45 AM
Sodium	**403**		**45.0**	**mg/Kg**	1	12/22/2010 05:45 AM
ANIONS			**E300**		Prep Date: **12/22/2010**	Analyst: **DM**
Chloride	**28.4**		**4.85**	**mg/Kg**	1	12/23/2010 11:44 AM
Fluoride	**8.17**		**0.971**	**mg/Kg**	1	12/23/2010 11:44 AM
Sulfate	**125**		**4.85**	**mg/Kg**	1	12/23/2010 11:44 AM
Surr: Selenate (surr)	*108*		*85-115*	*%REC*	1	12/23/2010 11:44 AM

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

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

Chain of Custody Form

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 #: 1012317

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name		A	TPH (418.1)
Work Order	~~Navajo~~	Project Number	Y-12 overflow	B	cations/anions
Company Name	Navajo Refining Co.	Bill To Company		C	Metals (6010)
Send Report To	Aaron Strange	Invoice Attn		D	
Address	PO Box 159	Address		E	
				F	
City/State/Zip	Artesia NM 88211	City/State/Zip		G	
Phone	575-748-3311	Phone		H	
Fax	575-746-5451	Fax		I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	~~BH~~ Composite #1	12-9-10	1328	S	NO	1	X	X	X								
2	~~BH~~ Composite #2	↓	1336	S	↓	1	X	X	X								
3	Composite #3	↓	1359	S	↓	1	X	X	X								
4	Temp Blank																
5	Trip Blank																
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Aaron Strange

Shipment Method: Fed Ex

Required Turnaround Time: (Check Box) ☐ Other _____
☑ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Aaron Strange	12-9-10	1615	
Relinquished by:	Date:	Time:	Received by (Laboratory):
			12/9/10 0910
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes:

Cooler ID	Cooler Temp

QC Package: (Check One Box Below)
☐ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Date ☐ 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.
3. The Chain of Custody is a legal document. All information must be completed accurately.

Strange, Aaron

From: Tevis, Bruce [Bruce.Tevis@bakerhughes.com]
Sent: Thursday, December 02, 2010 8:45 AM
To: Strange, Aaron
Subject: Y12 info

We inject between 3 and 4 gallons per day of Cop215Z into Y12 cooling tower. MSDS is attached.

Regards,

Bruce Tevis
Field Manager
Baker Hughes - Industrial Chemicals Group
Cell Phone#: (575)513-0066
Email: bruce.tevis@bakerhughes.com

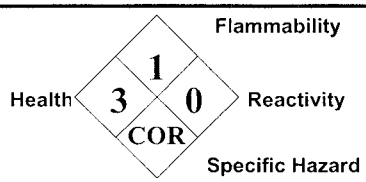
BAKER HUGHES
Baker Petrolite

Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

Product Name	**CoPhos PLUS 215Z**	**Code**	CPS215Z
Supplier	Baker Petrolite A Baker Hughes Company 12645 W. Airport Blvd. (77478) P.O. Box 5050 Sugar Land, TX 77487-5050 For Product Information/MSDSs Call: 800-231-3606 (8:00 a.m. - 5:00 p.m. cst, Monday - Friday) 281-276-5400	**Version**	1.0
Material Uses	Not available.	**Effective Date**	**6/25/2002**
24 Hour Emergency Numbers	CHEMTREC 800-424-9300 (U.S. 24 hour) Baker Petrolite 800-231-3606 (North America 24 hour) CANUTEC 613-996-6666 (Canada 24 hours) CHEMTREC Int'l 01-703-527-3887 (Latin America 24 hour)	**Print Date**	6/25/2002

National Fire Protection Association (U.S.A.)



Section 2. Composition and Information on Ingredients

Name	CAS #	% by Weight	Exposure Limits
1) Organic phosphonate	2809-21-4	1-5	Not available.
2) Phosphoric Acid	7664-38-2	10-30	TWA: 1 STEL: 3 (mg/m^3) from ACGIH (TLV) TWA: 1 (mg/m^3) from OSHA (PEL)
3) Zinc chloride	7646-85-7	1-5	TWA: 1 STEL: 2 (mg/m^3) from ACGIH (TLV) TWA: 1 (mg/m^3) from OSHA (PEL)

Section 3. Hazards Identification

Physical State and Appearance	State: Liquid., Color: Light Amber., Odor: Slight Acrid.
CERCLA Reportable Quantity	Phosphoric Acid 4715 gal. Zinc chloride 2989 gal.
Hazard Summary	DANGER. May be corrosive to eyes, skin and respiratory tract.
Routes of Exposure	Skin (Contact), Eyes, Inhalation.

Potential Acute Health Effects

Eyes May be corrosive to the eyes. May cause eye burns and permanent eye injury.

Skin May be corrosive. Skin contact may produce burns.

Inhalation May be corrosive to lungs. May cause burns.

Ingestion Not considered a likely route of exposure, however, may be corrosive if swallowed.

Medical Conditions aggravated by Exposure Exposure to this product may aggravate medical conditions involving the following: gastrointestinal tract, cardiovascular system, respiratory tract, skin/epithelium, eyes.

Continued on Next Page

See Toxicological Information (section 11)

Additional Hazard Identification Remarks	Not available.

Section 4. First Aid Measures

Eye Contact	Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if irritation occurs.
Skin Contact	Remove contaminated clothing and shoes immediately. Wash affected area with soap and mild detergent and large amounts of water until no evidence of chemical remains (approximately 15-20 minutes). Get medical attention immediately.
Inhalation	Remove to fresh air. Oxygen may be administered if breathing is difficult. If not breathing, administer artificial respiration and seek medical attention. Get medical attention if symptoms appear.
Ingestion	Get medical attention immediately. If swallowed, do not induce vomiting unless directed to do so by medical personnel. Wash out mouth with water if person is conscious. Never induce vomiting or give anything by mouth to a victim who is unconscious or having convulsions.
Notes to Physician	Not available.
Additional First Aid Remarks	Not available.

Section 5. Fire Fighting Measures

Flammability of the Product	Not regulated as flammable or combustible.
OSHA Flammability Class	IIIB
Autoignition temperature	Not available.
Flash Points	CLOSED CUP: >100°C (212°F). (TCC)
Flammable Limits	L.E.L. Not available. U.E.L. Not available.
Products of Combustion	These products are carbon oxides (CO, CO2) Oxides of phosphorous. Zinc Oxides. Oxides of sodium. Hydrogen chloride fumes..
Fire Hazards in Presence of Various Substances	Open Flames/Sparks/Static. Heat.
Fire Fighting Media and Instructions	In case of fire, use foam, dry chemicals, or CO2 fire extinguishers. Evacuate area and fight fire from a safe distance. Water spray may be used to keep fire-exposed containers cool. Keep water run off out of sewers and public water ways.
Protective Clothing (Fire)	Do not enter fire area without proper personal protective equipment, including NIOSH/MSHA approved self-contained breathing apparatus.
Special Remarks on Fire Hazards	Not available.

Section 6. Accidental Release Measures

Spill	Put on appropriate personal protective equipment. Keep personnel removed and upwind of spill. Shut off all ignition sources; no flares, smoking, or flames in hazard area. Approach release from upwind. Shut off leak if it can be done safely. Contain spilled material. Keep out of waterways. Dike large spills and use a non-sparking or explosion proof means to transfer material to an appropriate container for disposal. For small spills add absorbent (soil may be used in absence of other suitable materials scoop up material and place in a sealed, liquid-proof container. Waste must be disposed of in accordance with federal, state and local environmental control regulations.
Other Statements	If RQ (Reportable Quantity) is exceeded, report to National Spill Response Office at 1-800-424-8802.
Additional Accidental Release Measures Remarks	Not available.

Continued on Next Page

Section 7. Handling and Storage

Handling and Storage	Put on appropriate personal protective equipment. Avoid contact with eyes, skin and clothing. Avoid breathing vapors or spray mists. Use only with adequate ventilation. Protect from ignition. Store in a dry, cool and well ventilated area. Keep away from incompatibles. Keep container tightly closed and dry.
Additional Handling and Storage Remarks	Not available.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location

Personal Protection

Personal Protective Equipment recommendations are based on anticipated known manufacturing and use conditions. These conditions a expected to result in only incidental exposure. A thorough review of the job tasks and conditions by a safety professional is recommende however, to determine the level of personal protective equipment appropriate for these job tasks and conditions.

Eyes Chemical safety goggles. Use full face shield if splashes could occur.

Body Wear long sleeves and chemical resistant apron to prevent repeated or prolonged skin contact.

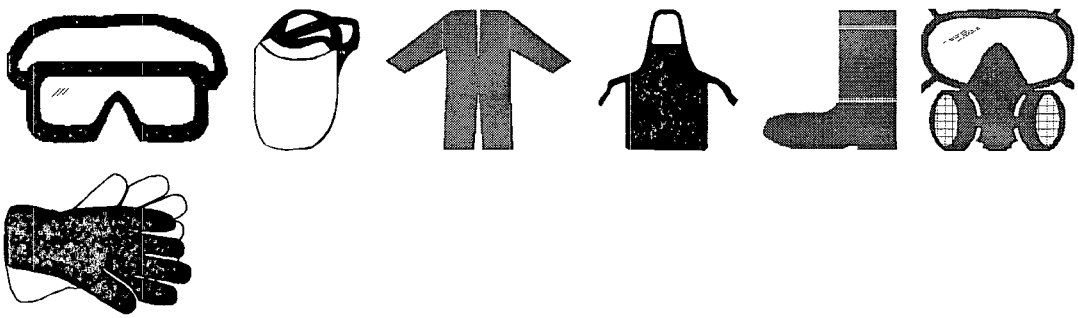
Respiratory Respirator use is not expected to be necessary under normal conditions of use. In poorly ventilated areas in emergency situations, use NIOSH/MSHA approved full face respirator.

Hands Chemical resistant gloves.

Feet Chemical resistant boots or overshoes.

Other information Butyl rubber gloves. Natural rubber gloves.

Protective Clothing (Pictograms)



Additional Exposure Control Remarks	Not available.

Section 9. Typical Physical and Chemical Properties

Physical State and Appearance	Liquid.	**Odor**	Slight Acrid.
pH	Not available.	**Color**	Light Amber.
Specific gravity	1.206 - 1.218 @ 16°C (60°F)		
Density	10.05 - 10.15 lbs/gal @ 16°C (60°F)		
Vapor Density	Not available.		
Vapor Pressure	Not available.		
Evaporation Rate	Not available.		
VOC	Not available.		
Viscosity	Not available.		
Pour Point	Not available.		

Continued on Next Page

Solubility (Water)	Soluble
Boiling Point	Not available.
Physical Chemical Comments	Not available.

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Conditions of Instability	Not available.
Incompatibility with Various Substances	Oxidizing material. Acid.
Hazardous Decomposition Products	Not applicable.
Hazardous Polymerization	Hazardous polymerization is not expected to occur.
Special Stability & Reactivity Remarks	Not available.

Section 11. Toxicological Information

Component Toxicological Information

Acute Animal Toxicity

1) Organic phosphonate	ORAL (LD50): Acute: 1800 mg/kg [Mouse].
2) Phosphoric Acid	ORAL (LD50): Acute: 1530 mg/kg [Rat]. DERMAL (LD50): Acute: 2740 mg/kg [Rabbit]. VAPOR (LC50): Acute: >850 mg/m^3 1 hours [Rabbit].
3) Zinc chloride	ORAL (LD50): Acute: 329 mg/kg [Mouse]. 350 mg/kg [Rat].

Chronic Toxicity Data

1) Organic phosphonate

Reproductive effects in rats have been reported, but all exposure routes were of the non-occupational type. An intraperitoneal dose c phosphonic acid, (1-hydroxyethylidene)di- at 200 mg/kg in female rats on day seven of pregnancy produced fetotoxicity, except death, e.g stunted growth of the fetus. A subcutaneous dose of 200 mg/kg given to female rats on days 11-17 of pregnancy, resulted in developmental abnormalities, and stunted growth of the fetus (RTECS).

2) Phosphoric Acid

Not available.

3) Zinc chloride

Zinc is necessary for the activity of the enzymes of the metabolism of the nucleic acid and one would expect that it has a favorable.Cependant genetic effect, it showed a genotoxicity in several genetic tests in vitro. It caused damage with the chromosomes i the cultivated human lymphocytes (DeKnudt & DeMinatti, 1978) and in the defective calcium mice (DeKundt, 1982). Zinc caused change in the biological test Ames Salmonella (RTECS), but not in the cells lymphomas of the mouse (Amacher & Paillet, 1980). Although studie isolated in the experimental animals showed that the zinc chloride can cause genetic deformities following its injection, it can prevent harmful effects on the reproduction.

Product Toxicological Information

Acute Animal Toxicity	Not available.
Target Organs	gastrointestinal tract, cardiovascular system, respiratory tract, skin/epithelium, eyes.
Other Adverse Effects	Not available.

Continued on Next Page

Section 12. Ecological Information

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Biodegradable/OECD	Not available.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks	Not available.

Section 13. Disposal Considerations

Responsibility for proper waste disposal rests with the generator of the waste. Dispose of any waste material in accordance with all applicable federal, state and local regulations. Note that these regulations may also apply to empty containers, liners and rinsate. Processing, use, dilution or contamination of this product may cause its physical and chemical properties to change.

Additional Waste Remarks	Not available.

Section 14. Transport Information

DOT Classification	Corrosive liquid, acidic, inorganic, n.o.s., (contains Phosphoric Acid,Zinc chloride), 8, UN3264, II	
DOT Reportable Quantity	Phosphoric Acid 4715 gal. Zinc chloride 2989 gal.	
Marine Pollutant	Not applicable.	
Additional DOT information	Not available.	
Emergency Response Guide Page Number	154	

Section 15. Regulatory Information

HCS Classification	Corrosive.
U.S. Federal Regulations	
Environmental Regulations	Extremely Hazardous Substances: Not applicable to any components in this product. SARA 313 Toxic Chemical Notification and Release Reporting: Phosphoric Acid; SARA 302/304 Emergency Planning and Notification substances: Not applicable to any components in this product. Hazardous Substances (CERCLA 302): Phosphoric Acid 4715 gal.; Zinc chloride 2989 gal.; SARA 311/312 MSDS distribution - chemical inventory - hazard identification: immediate health hazard; delayed health hazard; Clean Water Act (CWA) 307 Priority Pollutants: Not applicable to any components in this product. Clean Water Act (CWA) 311 Hazardous Substances: Phosphoric Acid; Zinc chloride; Clean Air Act (CAA) 112(r) Accidental Release Prevention Substances: Not applicable to any components this product.
Threshold Planning Quantity (TPQ)	Not applicable.
TSCA Inventory Status	All components are included or are exempted from listing on the US Toxic Substances Control Act Invento

Continued on Next Page

	This product does not contain any components that are subject to the reporting requirements of TSCA Section 12(b) if exported from the United States.
State Regulations	State specific information is available upon request from Baker Petrolite.
International Regulations	
Canada	Not all components are included on the Canadian Domestic Substances List.
WHMIS (Canada)	Not available.
European Union	Not all components are included on the European Inventory of Existing Commercial Chemical Substances the European List of Notified Chemical Substances.
	International inventory status information is available upon request from Baker Petrolite for the following countries: Australia, and Australia (NICNAS), China, Korea (TCCL), Philippines (RA6969), or Japan.
Harmonized Tariff Code	Not available.
Other Regulatory Information	No further regulatory information is available.

Section 16. Other Information

Other Special Considerations Not available.

Baker Petrolite Disclaimer

NOTE: The information on this MSDS is based on data which is considered to be accurate. Baker Petrolite, however, makes no guarantees or warranty, either expressed or implied of the accuracy or completeness of this information.

The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of this product.

This MSDS was prepared and is to be used for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Plant	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude ~N32°46'48.8" **Longitude** ~W104°13'02.6"

NATURE OF RELEASE

Type of Release: Spill of Treated Waster Water (by Aggressive Bio. Treatment)	Volume of Release: Unknown	Volume Recovered: ~0 barrels
Source of Release: Effluent line leak near the Mewbourne injection well (~ 40 yards East of CR204).	Date and Hour of Occurrence: 12/02/2010 Unknown	Date and Hour of Discovery: 12/02/2010 ~ 09:00
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Sent email to Carl Chavez from OCD in Santa Fe, and sent and email to Hope Monzeglio from the NMED Haz Waste Bureau.	
By Whom? Darrell Moore	Date and Hour: 12/02/2010 at ~09:14 to Carl Chavez (OCD Santa Fe), and 12/02/2010 at ~09:14 to NMED Haz Waste Bureau.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 12/02/2010 at ~ 09:00 a leak was found near the Mewbourne injection well (~ 40 yards East of CR204). The Effluent line was blocked in at the Waste Water Treater (inside the refinery) to stop the leak and repair the line. The leak was excavated and the line was clamped and is holding.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the effluent line near the Mewbourne injection well (~ 40 yards East of CR204) at ~ N32°46'48.8", W104°13'02.6". The leak was excavated to make repairs. The leak did not stain the soil; however Navajo will dispose of the excavated soil as non-hazardous waste. Bottom Hole samples will be collected and tested for BTEX, Metals, and Anions.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 12/07/2010 Phone: 575-703-5057		

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
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State of New Mexico
Energy Minerals and Natural Resources

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1220 South St. Francis Dr.
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Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Plant	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude ~N32°46'48.8" **Longitude** ~W104°13'02.6"

NATURE OF RELEASE

Type of Release: Spill of Treated Waster Water (by Aggressive Bio. Treatment)	Volume of Release: Unknown	Volume Recovered: ~0 barrels
Source of Release: Effluent line leak near the Mewbourne injection well (~ 40 yards East of CR204).	Date and Hour of Occurrence: 12/02/2010 Unknown	Date and Hour of Discovery: 12/02/2010 ~ 09:00
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Sent email to Carl Chavez from OCD in Santa Fe, and sent and email to Hope Monzeglio from the NMED Haz Waste Bureau.	
By Whom? Darrell Moore	Date and Hour: 12/02/2010 at ~09:14 to Carl Chavez (OCD Santa Fe), and 12/02/2010 at ~09:14 to NMED Haz Waste Bureau.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 12/02/2010 at ~ 09:00 a leak was found near the Mewbourne injection well (~ 40 yards East of CR204). The Effluent line was blocked in at the Waste Water Treater (inside the refinery) to stop the leak and repair the line. The leak was excavated and the line was clamped and is holding.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the effluent line near the Mewbourne injection well (~ 40 yards East of CR204) at ~ N32°46'48.8", W104°13'02.6". The leak was excavated to make repairs. The leak did not stain the soil; however Navajo will dispose of the excavated soil as non-hazardous waste. Bottom Hole samples will be collected and tested for BTEX, Metals, and Anions.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 12/07/2010 Phone: 575-703-5057		

ALS Environmental

Date: *06-Jan-11*

Client: Navajo Refining Company
Project: WW Effluent
Sample ID: Leak from 12-2-10 #1
Collection Date: 12/21/2010 10:39 AM

Work Order: 1012728
Lab ID: 1012728-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			**SW8021B**			Analyst: **KKP**
Benzene	ND		0.0010	mg/Kg	1	12/30/2010 02:44 PM
Toluene	ND		0.0010	mg/Kg	1	12/30/2010 02:44 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	12/30/2010 02:44 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	12/30/2010 02:44 PM
Surr: 4-Bromofluorobenzene	*91.4*		*75-131*	*%REC*	1	12/30/2010 02:44 PM
Surr: Trifluorotoluene	*91.6*		*73-130*	*%REC*	1	12/30/2010 02:44 PM
MERCURY			**SW7471A**		Prep Date: **12/29/2010**	Analyst: **JCJ**
Mercury	**0.00650**		**0.00349**	**mg/Kg**	1	12/29/2010 08:01 PM
METALS			**SW6020**		Prep Date: **12/30/2010**	Analyst: **SKS**
Arsenic	**2.93**		**0.435**	**mg/Kg**	1	1/5/2011 12:00 AM
Barium	**218**		**4.35**	**mg/Kg**	10	1/5/2011 08:32 PM
Cadmium	ND		0.435	mg/Kg	1	1/5/2011 12:00 AM
Chromium	**11.8**		**0.435**	**mg/Kg**	1	1/5/2011 12:00 AM
Lead	**12.2**		**0.435**	**mg/Kg**	1	1/5/2011 12:00 AM
Selenium	**1.20**		**0.435**	**mg/Kg**	1	1/5/2011 12:00 AM
Silver	ND		0.435	mg/Kg	1	1/5/2011 12:00 AM
ANIONS			**E300**		Prep Date: **1/4/2011**	Analyst: **JBA**
Chloride	**204**		**49.8**	**mg/Kg**	10	1/5/2011 04:31 AM
Sulfate	**687**		**49.8**	**mg/Kg**	10	1/5/2011 04:31 AM
Surr: Selenate (surr)	*114*		*85-115*	*%REC*	10	1/5/2011 04:31 AM

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

Client: Navajo Refining Company
Project: WW Effluent
Sample ID: Leak from 12-2-10 #2
Collection Date: 12/21/2010 10:50 AM

Work Order: 1012728
Lab ID: 1012728-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			**SW8021B**			Analyst: **KKP**
Benzene	ND		0.0010	mg/Kg	1	12/30/2010 04:06 PM
Toluene	ND		0.0010	mg/Kg	1	12/30/2010 04:06 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	12/30/2010 04:06 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	12/30/2010 04:06 PM
Surr: 4-Bromofluorobenzene	*97.4*		*75-131*	*%REC*	1	12/30/2010 04:06 PM
Surr: Trifluorotoluene	*90.8*		*73-130*	*%REC*	1	12/30/2010 04:06 PM
MERCURY			**SW7471A**		Prep Date: **12/29/2010**	Analyst: **JCJ**
Mercury	**0.0163**		**0.00348**	**mg/Kg**	1	12/29/2010 08:07 PM
METALS			**SW6020**		Prep Date: **12/30/2010**	Analyst: **SKS**
Arsenic	**3.26**		**0.485**	**mg/Kg**	1	1/5/2011 12:06 AM
Barium	**174**		**4.85**	**mg/Kg**	10	1/5/2011 08:38 PM
Cadmium	ND		0.485	mg/Kg	1	1/5/2011 12:06 AM
Chromium	**12.0**		**0.485**	**mg/Kg**	1	1/5/2011 12:06 AM
Lead	**13.1**		**0.485**	**mg/Kg**	1	1/5/2011 12:06 AM
Selenium	**0.771**		**0.485**	**mg/Kg**	1	1/5/2011 12:06 AM
Silver	ND		0.485	mg/Kg	1	1/5/2011 12:06 AM
ANIONS			**E300**		Prep Date: **1/4/2011**	Analyst: **JBA**
Chloride	**14.3**		**4.98**	**mg/Kg**	1	1/5/2011 11:33 AM
Sulfate	**84.8**		**4.98**	**mg/Kg**	1	1/5/2011 11:33 AM
Surr: Selenate (surr)	*114*		*85-115*	*%REC*	1	1/5/2011 11:33 AM

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

Client: Navajo Refining Company
Project: WW Effluent
Sample ID: Leak from 12-2-10 #3
Collection Date: 12/21/2010 10:55 AM

Work Order: 1012728
Lab ID: 1012728-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			**SW8021B**			Analyst: **KKP**
Benzene	ND		0.0010	mg/Kg	1	12/30/2010 03:46 PM
Toluene	ND		0.0010	mg/Kg	1	12/30/2010 03:46 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	12/30/2010 03:46 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	12/30/2010 03:46 PM
Surr: 4-Bromofluorobenzene	*90.7*		*75-131*	*%REC*	1	12/30/2010 03:46 PM
Surr: Trifluorotoluene	*89.5*		*73-130*	*%REC*	1	12/30/2010 03:46 PM
MERCURY			**SW7471A**		Prep Date: **12/29/2010**	Analyst: **JCJ**
Mercury	**0.0119**		**0.00349**	**mg/Kg**	1	12/29/2010 08:09 PM
METALS			**SW6020**		Prep Date: **12/30/2010**	Analyst: **SKS**
Arsenic	**3.06**		**0.455**	**mg/Kg**	1	1/5/2011 12:12 AM
Barium	**135**		**0.455**	**mg/Kg**	1	1/5/2011 12:12 AM
Cadmium	ND		0.455	mg/Kg	1	1/5/2011 12:12 AM
Chromium	**7.62**		**0.455**	**mg/Kg**	1	1/5/2011 12:12 AM
Lead	**11.1**		**0.455**	**mg/Kg**	1	1/5/2011 12:12 AM
Selenium	**0.798**		**0.455**	**mg/Kg**	1	1/5/2011 12:12 AM
Silver	ND		0.455	mg/Kg	1	1/5/2011 12:12 AM
ANIONS			**E300**		Prep Date: **1/4/2011**	Analyst: **JBA**
Chloride	**244**		**48.6**	**mg/Kg**	10	1/5/2011 05:56 AM
Sulfate	**849**		**48.6**	**mg/Kg**	10	1/5/2011 05:56 AM
Surr: Selenate (surr)	*113*		*85-115*	*%REC*	10	1/5/2011 05:56 AM

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

ALS Environmental

Date: *06-Jan-11*

Client: Navajo Refining Company
Project: WW Effluent
Sample ID: Background
Collection Date: 12/21/2010 10:28 AM

Work Order: 1012728
Lab ID: 1012728-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			**SW8021B**			Analyst: **KKP**
Benzene	ND		0.0010	mg/Kg	1	12/30/2010 03:05 PM
Toluene	ND		0.0010	mg/Kg	1	12/30/2010 03:05 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	12/30/2010 03:05 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	12/30/2010 03:05 PM
Surr: 4-Bromofluorobenzene	*89.3*		*75-131*	*%REC*	1	12/30/2010 03:05 PM
Surr: Trifluorotoluene	*90.2*		*73-130*	*%REC*	1	12/30/2010 03:05 PM
MERCURY			**SW7471A**		Prep Date: **12/29/2010**	Analyst: **JCJ**
Mercury	**0.00875**		**0.00355**	**mg/Kg**	1	12/29/2010 08:11 PM
METALS			**SW6020**		Prep Date: **12/30/2010**	Analyst: **SKS**
Arsenic	**2.42**		**0.490**	**mg/Kg**	1	1/5/2011 12:19 AM
Barium	**167**		**4.90**	**mg/Kg**	10	1/5/2011 08:56 PM
Cadmium	ND		0.490	mg/Kg	1	1/5/2011 12:19 AM
Chromium	**5.64**		**0.490**	**mg/Kg**	1	1/5/2011 12:19 AM
Lead	**7.00**		**0.490**	**mg/Kg**	1	1/5/2011 12:19 AM
Selenium	ND		0.490	mg/Kg	1	1/5/2011 12:19 AM
Silver	ND		0.490	mg/Kg	1	1/5/2011 12:19 AM
ANIONS			**E300**		Prep Date: **1/4/2011**	Analyst: **JBA**
Chloride	**8.83**		**4.89**	**mg/Kg**	1	1/5/2011 11:54 AM
Sulfate	**5.58**		**4.89**	**mg/Kg**	1	1/5/2011 11:54 AM
Surr: Selenate (surr)	*112*		*85-115*	*%REC*	1	1/5/2011 11:54 AM

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

ALS Environmental

Date: *06-Jan-11*

Client: Navajo Refining Company
Project: WW Effluent
Sample ID: Leak from 12-3-10
Collection Date: 12/21/2010 11:11 AM

Work Order: 1012728
Lab ID: 1012728-05
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			**SW8021B**			Analyst: **KKP**
Benzene	ND		0.0010	mg/Kg	1	12/30/2010 03:25 PM
Toluene	ND		0.0010	mg/Kg	1	12/30/2010 03:25 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	12/30/2010 03:25 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	12/30/2010 03:25 PM
Surr: 4-Bromofluorobenzene	*89.1*		*75-131*	*%REC*	1	12/30/2010 03:25 PM
Surr: Trifluorotoluene	*89.9*		*73-130*	*%REC*	1	12/30/2010 03:25 PM
MERCURY			**SW7471A**		Prep Date: **12/29/2010**	Analyst: **JCJ**
Mercury	**0.00675**		**0.00351**	**mg/Kg**	1	12/29/2010 08:13 PM
METALS			**SW6020**		Prep Date: **12/30/2010**	Analyst: **SKS**
Arsenic	**3.31**		**0.476**	**mg/Kg**	1	1/5/2011 02:16 AM
Barium	**308**		**4.76**	**mg/Kg**	10	1/5/2011 09:21 PM
Cadmium	ND		0.476	mg/Kg	1	1/5/2011 02:16 AM
Chromium	**5.08**		**0.476**	**mg/Kg**	1	1/5/2011 02:16 AM
Lead	**4.75**		**0.476**	**mg/Kg**	1	1/5/2011 02:16 AM
Selenium	**0.835**		**0.476**	**mg/Kg**	1	1/5/2011 02:16 AM
Silver	ND		0.476	mg/Kg	1	1/5/2011 02:16 AM
ANIONS			**E300**		Prep Date: **1/4/2011**	Analyst: **JBA**
Chloride	**286**		**49.1**	**mg/Kg**	10	1/5/2011 06:38 AM
Sulfate	**796**		**49.1**	**mg/Kg**	10	1/5/2011 06:38 AM
Surr: Selenate (surr)	*114*		*85-115*	*%REC*	10	1/5/2011 06:38 AM

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

Chain of Custody Form

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

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

Page 1 of 1

ALS Project Manager:
ALS Work Order #: 1012728

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	WW Effluent	A	BTEX
Work Order		Project Number		B	Metals (totals)
Company Name	Navajo Refining Co	Bill To Company		C	Anions (Chlorides + sulphate)
Send Report To	Aaron Strange	Invoice Attn		D	
Address	P.O. Box 159	Address		E	
				F	
City/State/Zip	Artesia NM 88211	City/State/Zip		G	
Phone	575-748-3311	Phone		H	
Fax	575-746-5451	Fax		I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	leak from 12-2-10 #1	12-21-10	1039	S	N	2	X	X	X								
2	Leak from 12-2-10 #2	↓	1050	S	N	2	X	X	X								
3	Leak from 12-2-10 #3	↓	1055	S	N	2	X	X	X								
4	Background N 32°46'47.7" W 104°13'00.3"	↓	1020	S	N	2	X	X	X								
5																	
6	Leak from 12-3-10	12-21-10	11:11	S	N	2	X	X	X								
7																	
8	Trip Blank					1											
9	Temp Blank					1											
10																	

Sampler(s) Please Print & Sign: Aaron Strange
Shipment Method: Fed EX
Required Turnaround Time: (Check Box) ☐ Other ____ ☑ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour
Results Due Date:

Relinquished by: [signature]	Date: 12-21-10	Time: 1615	Received by: [signature]
Relinquished by:	Date:	Time:	Received by (Laboratory): [signature] 12/22/10 0913
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes:

Cooler ID	Cooler Temp

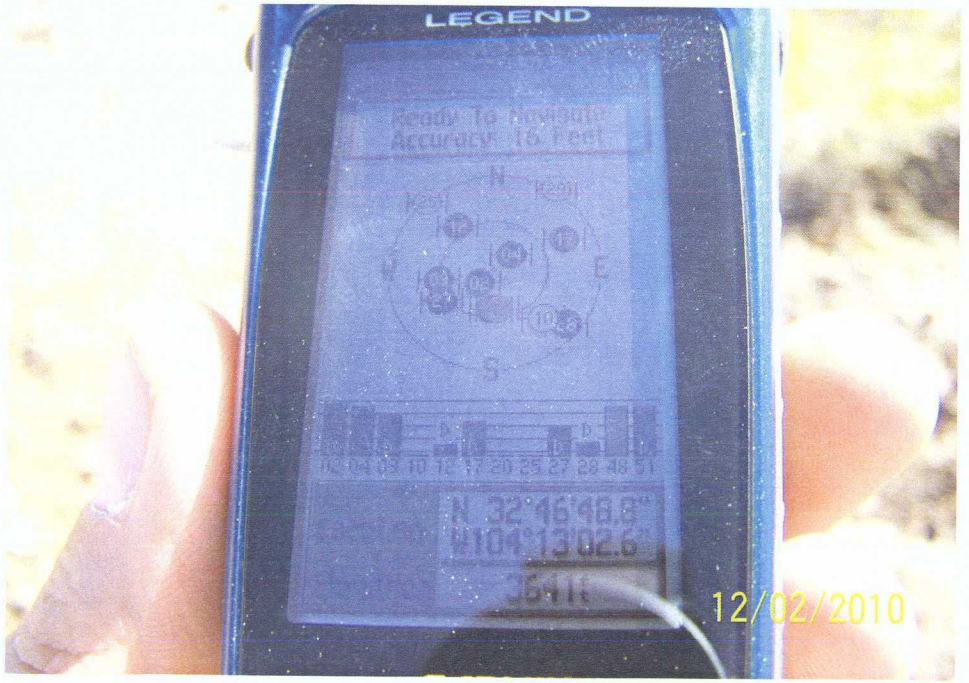
QC Package: (Check One Box Below)
☐ Level II Std QC
☐ Level III Std QC/Raw Date
☐ Level IV SW846/CLP
☐ Other ____
☐ TRRP Checklist
☐ TRRP Level IV

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


12/02/2010


12/02/2010


LEGEND
Ready To Navigate
Accuracy: 16 Feet
12/02/2010


12/02/2010


12/02/2010


12/06/2010


12/02/2010


12/02/2010

NON-HAZARDOUS WASTE MANIFEST

64853

PART I: Generator Navajo Refining Co. LLC
Address PO Box 159
City/State Artesia, NM 88211-0159

(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia

Permit No. NMD048918817

Property Name [illegible]
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	

DESCRIPTION / NOTES
Cont. Soil 12yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

[signature]
Signature of Generator's Authorized Agent

[illegible]
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers
Address
City/State

Telephone No.

Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

[signature]
Signature of Facility Agent

1-14-11
Date and Time Received

TCP - #7520-A

NON-HAZARDOUS WASTE MANIFEST

84877

PART I: Generator Navajo Refining Co. LLC
Address PO Box 159
City/State Artesia, NM 88211-0159

(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia Permit No. NMD048918817

Property Name _____
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	
DESCRIPTION / NOTES					
Cont. Soil 12yds					
Effluent Pipe Line Leak					

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers
Address _____
City/State _____

Telephone No.

2
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

1-31-11
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

2/1/11
Date and Time Received

TCP - #7520-A

NON-HAZARDOUS WASTE MANIFEST

64875

PART I: Generator Navajo Refining Co. LLC

Address PO Box 159 (575) 748-3311

City/State Artesia, NM 88211-0159 Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia Permit No. NMD048918817

Property Name

(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	

DESCRIPTION / NOTES
Cont. Soil 12yds
Effluent Pipe Line Leak

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers

Address

City/State Telephone No.

2

Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

1-29-11

Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.** **(575) 393-1079**

Address **P.O. Box 388** Telephone No.

City/State **Hobbs, N.M. 88241-0388** **www.crihobbs.com**

E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

Date and Time Received

TCP - #7520-A

NON-HAZARDOUS WASTE MANIFEST

64894

PART I: Generator Navajo Refining Co. LLC
Address PO Box 159
City/State Artesia, NM 88211-0159

(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia

Permit No. NMD048918817

Property Name [illegible] Spill
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	

DESCRIPTION / NOTES

Cont. Soil 12yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers
Address
City/State

Telephone No.

Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

1/14/11
Date and Time Received

TCP - #7520-A

NON-HAZARDOUS WASTE MANIFEST 62303

PART I: Generator Navajo Refining Co.LLC

Address PO Box 159 (575) 748-3311

City/State Artesia, NM 88211-0159 Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia Permit No. NMD048918817

Property Name _____

(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	

DESCRIPTION / NOTES
Cont Soil Effluent - Pipeline Leak
Trash & Debris 12yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent — Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers

Address _____ Telephone No.

City/State _____ 2 Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent — 1-12-11 Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.** **(575) 393-1079** Telephone No.

Address **P.O. Box 388**

City/State **Hobbs, N.M. 88241-0388** **www.crihobbs.com** E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent — 1-12-11 Date and Time Received

TCP - #7520-A

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Plant	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude ~N32°46'05.3" **Longitude** ~W104°13'42.9"

NATURE OF RELEASE

Type of Release: Spill of Treated Waster Water (by Aggressive Bio. Treatment)	Volume of Release: Unknown	Volume Recovered: ~0 barrels
Source of Release: Effluent line leak between the Chukka and Mewbourne Injection Wells (just east of the leak from 05/03/2010).	Date and Hour of Occurrence: 12/03/2010 Unknown	Date and Hour of Discovery: 12/03/2010 ~ 14:10
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Sent email to Carl Chavez from OCD in Santa Fe, and sent and email to Hope Monzeglio from the NMED Haz Waste Bureau.	
By Whom? Darrell Moore	Date and Hour: 12/03/2010 at ~14:26 to Carl Chavez (OCD Santa Fe), and 12/03/2010 at ~14:26 to NMED Haz Waste Bureau.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 12/03/2010 at ~ 14:26 a leak was found between the Chukka and Mewbourne Injection Wells (just east of the leak from 05/03/2010). The Effluent line was blocked in at the Waste Water Treater (inside the refinery) to stop the leak and repair the line. The leak was excavated and the line was clamped and is holding.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the effluent line between the Chukka and Mewbourne Injection Wells (just east of the leak from 05/03/2010) at ~ N32°46'05.3", W104°13'42.9". The leak was excavated to make repairs. The leak did not stain the soil; however Navajo will dispose of the excavated soil as non-hazardous waste. Bottom Hole samples will be collected and tested for BTEX, Metals, and Anions.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 12/07/2010 Phone: 575-703-5057		

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Plant	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude ~N32°46'05.3" **Longitude** ~W104°13'42.9"

NATURE OF RELEASE

Type of Release: Spill of Treated Waster Water (by Aggressive Bio. Treatment)	Volume of Release: Unknown	Volume Recovered: ~0 barrels
Source of Release: Effluent line leak between the Chukka and Mewbourne Injection Wells (just east of the leak from 05/03/2010).	Date and Hour of Occurrence: 12/03/2010 Unknown	Date and Hour of Discovery: 12/03/2010 ~ 14:10
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Sent email to Carl Chavez from OCD in Santa Fe, and sent and email to Hope Monzeglio from the NMED Haz Waste Bureau.	
By Whom? Darrell Moore	Date and Hour: 12/03/2010 at ~14:26 to Carl Chavez (OCD Santa Fe), and 12/03/2010 at ~14:26 to NMED Haz Waste Bureau.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 12/03/2010 at ~ 14:26 a leak was found between the Chukka and Mewbourne Injection Wells (just east of the leak from 05/03/2010). The Effluent line was blocked in at the Waste Water Treater (inside the refinery) to stop the leak and repair the line. The leak was excavated and the line was clamped and is holding.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the effluent line between the Chukka and Mewbourne Injection Wells (just east of the leak from 05/03/2010) at ~ N32°46'05.3", W104°13'42.9". The leak was excavated to make repairs. The leak did not stain the soil; however Navajo will dispose of the excavated soil as non-hazardous waste. Bottom Hole samples will be collected and tested for BTEX, Metals, and Anions.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 12/07/2010 Phone: 575-703-5057		

ALS Environmental

Date: *06-Jan-11*

Client: Navajo Refining Company
Project: WW Effluent
Sample ID: Leak from 12-2-10 #1
Collection Date: 12/21/2010 10:39 AM

Work Order: 1012728
Lab ID: 1012728-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			**SW8021B**			Analyst: **KKP**
Benzene	ND		0.0010	mg/Kg	1	12/30/2010 02:44 PM
Toluene	ND		0.0010	mg/Kg	1	12/30/2010 02:44 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	12/30/2010 02:44 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	12/30/2010 02:44 PM
Surr: 4-Bromofluorobenzene	*91.4*		*75-131*	*%REC*	1	12/30/2010 02:44 PM
Surr: Trifluorotoluene	*91.6*		*73-130*	*%REC*	1	12/30/2010 02:44 PM
MERCURY			**SW7471A**		Prep Date: **12/29/2010**	Analyst: **JCJ**
Mercury	**0.00650**		**0.00349**	**mg/Kg**	1	12/29/2010 08:01 PM
METALS			**SW6020**		Prep Date: **12/30/2010**	Analyst: **SKS**
Arsenic	**2.93**		**0.435**	**mg/Kg**	1	1/5/2011 12:00 AM
Barium	**218**		**4.35**	**mg/Kg**	10	1/5/2011 08:32 PM
Cadmium	ND		0.435	mg/Kg	1	1/5/2011 12:00 AM
Chromium	**11.8**		**0.435**	**mg/Kg**	1	1/5/2011 12:00 AM
Lead	**12.2**		**0.435**	**mg/Kg**	1	1/5/2011 12:00 AM
Selenium	**1.20**		**0.435**	**mg/Kg**	1	1/5/2011 12:00 AM
Silver	ND		0.435	mg/Kg	1	1/5/2011 12:00 AM
ANIONS			**E300**		Prep Date: **1/4/2011**	Analyst: **JBA**
Chloride	**204**		**49.8**	**mg/Kg**	10	1/5/2011 04:31 AM
Sulfate	**687**		**49.8**	**mg/Kg**	10	1/5/2011 04:31 AM
Surr: Selenate (surr)	*114*		*85-115*	*%REC*	10	1/5/2011 04:31 AM

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

ALS Environmental

Date: *06-Jan-11*

Client: Navajo Refining Company
Project: WW Effluent
Sample ID: Leak from 12-2-10 #2
Collection Date: 12/21/2010 10:50 AM

Work Order: 1012728
Lab ID: 1012728-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			**SW8021B**			Analyst: **KKP**
Benzene	ND		0.0010	mg/Kg	1	12/30/2010 04:06 PM
Toluene	ND		0.0010	mg/Kg	1	12/30/2010 04:06 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	12/30/2010 04:06 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	12/30/2010 04:06 PM
Surr: 4-Bromofluorobenzene	*97.4*		*75-131*	*%REC*	1	12/30/2010 04:06 PM
Surr: Trifluorotoluene	*90.8*		*73-130*	*%REC*	1	12/30/2010 04:06 PM
MERCURY			**SW7471A**		Prep Date: **12/29/2010**	Analyst: **JCJ**
Mercury	**0.0163**		**0.00348**	**mg/Kg**	1	12/29/2010 08:07 PM
METALS			**SW6020**		Prep Date: **12/30/2010**	Analyst: **SKS**
Arsenic	**3.26**		**0.485**	**mg/Kg**	1	1/5/2011 12:06 AM
Barium	**174**		**4.85**	**mg/Kg**	10	1/5/2011 08:38 PM
Cadmium	ND		0.485	mg/Kg	1	1/5/2011 12:06 AM
Chromium	**12.0**		**0.485**	**mg/Kg**	1	1/5/2011 12:06 AM
Lead	**13.1**		**0.485**	**mg/Kg**	1	1/5/2011 12:06 AM
Selenium	**0.771**		**0.485**	**mg/Kg**	1	1/5/2011 12:06 AM
Silver	ND		0.485	mg/Kg	1	1/5/2011 12:06 AM
ANIONS			**E300**		Prep Date: **1/4/2011**	Analyst: **JBA**
Chloride	**14.3**		**4.98**	**mg/Kg**	1	1/5/2011 11:33 AM
Sulfate	**84.8**		**4.98**	**mg/Kg**	1	1/5/2011 11:33 AM
Surr: Selenate (surr)	*114*		*85-115*	*%REC*	1	1/5/2011 11:33 AM

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

ALS Environmental

Date: *06-Jan-11*

Client: Navajo Refining Company
Project: WW Effluent
Sample ID: Leak from 12-2-10 #3
Collection Date: 12/21/2010 10:55 AM

Work Order: 1012728
Lab ID: 1012728-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			**SW8021B**			Analyst: **KKP**
Benzene	ND		0.0010	mg/Kg	1	12/30/2010 03:46 PM
Toluene	ND		0.0010	mg/Kg	1	12/30/2010 03:46 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	12/30/2010 03:46 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	12/30/2010 03:46 PM
Surr: 4-Bromofluorobenzene	*90.7*		*75-131*	*%REC*	1	12/30/2010 03:46 PM
Surr: Trifluorotoluene	*89.5*		*73-130*	*%REC*	1	12/30/2010 03:46 PM
MERCURY			**SW7471A**		Prep Date: **12/29/2010**	Analyst: **JCJ**
Mercury	**0.0119**		**0.00349**	**mg/Kg**	1	12/29/2010 08:09 PM
METALS			**SW6020**		Prep Date: **12/30/2010**	Analyst: **SKS**
Arsenic	**3.06**		**0.455**	**mg/Kg**	1	1/5/2011 12:12 AM
Barium	**135**		**0.455**	**mg/Kg**	1	1/5/2011 12:12 AM
Cadmium	ND		0.455	mg/Kg	1	1/5/2011 12:12 AM
Chromium	**7.62**		**0.455**	**mg/Kg**	1	1/5/2011 12:12 AM
Lead	**11.1**		**0.455**	**mg/Kg**	1	1/5/2011 12:12 AM
Selenium	**0.798**		**0.455**	**mg/Kg**	1	1/5/2011 12:12 AM
Silver	ND		0.455	mg/Kg	1	1/5/2011 12:12 AM
ANIONS			**E300**		Prep Date: **1/4/2011**	Analyst: **JBA**
Chloride	**244**		**48.6**	**mg/Kg**	10	1/5/2011 05:56 AM
Sulfate	**849**		**48.6**	**mg/Kg**	10	1/5/2011 05:56 AM
Surr: Selenate (surr)	*113*		*85-115*	*%REC*	10	1/5/2011 05:56 AM

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

ALS Environmental

Date: *06-Jan-11*

Client: Navajo Refining Company
Project: WW Effluent
Sample ID: Background
Collection Date: 12/21/2010 10:28 AM

Work Order: 1012728
Lab ID: 1012728-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			**SW8021B**			Analyst: **KKP**
Benzene	ND		0.0010	mg/Kg	1	12/30/2010 03:05 PM
Toluene	ND		0.0010	mg/Kg	1	12/30/2010 03:05 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	12/30/2010 03:05 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	12/30/2010 03:05 PM
Surr: 4-Bromofluorobenzene	*89.3*		*75-131*	*%REC*	1	12/30/2010 03:05 PM
Surr: Trifluorotoluene	*90.2*		*73-130*	*%REC*	1	12/30/2010 03:05 PM
MERCURY			**SW7471A**		Prep Date: **12/29/2010**	Analyst: **JCJ**
Mercury	**0.00875**		**0.00355**	**mg/Kg**	1	12/29/2010 08:11 PM
METALS			**SW6020**		Prep Date: **12/30/2010**	Analyst: **SKS**
Arsenic	**2.42**		**0.490**	**mg/Kg**	1	1/5/2011 12:19 AM
Barium	**167**		**4.90**	**mg/Kg**	10	1/5/2011 08:56 PM
Cadmium	ND		0.490	mg/Kg	1	1/5/2011 12:19 AM
Chromium	**5.64**		**0.490**	**mg/Kg**	1	1/5/2011 12:19 AM
Lead	**7.00**		**0.490**	**mg/Kg**	1	1/5/2011 12:19 AM
Selenium	ND		0.490	mg/Kg	1	1/5/2011 12:19 AM
Silver	ND		0.490	mg/Kg	1	1/5/2011 12:19 AM
ANIONS			**E300**		Prep Date: **1/4/2011**	Analyst: **JBA**
Chloride	**8.83**		**4.89**	**mg/Kg**	1	1/5/2011 11:54 AM
Sulfate	**5.58**		**4.89**	**mg/Kg**	1	1/5/2011 11:54 AM
Surr: Selenate (surr)	*112*		*85-115*	*%REC*	1	1/5/2011 11:54 AM

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

ALS Environmental

Date: *06-Jan-11*

Client: Navajo Refining Company
Project: WW Effluent
Sample ID: Leak from 12-3-10
Collection Date: 12/21/2010 11:11 AM

Work Order: 1012728
Lab ID: 1012728-05
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			**SW8021B**			Analyst: **KKP**
Benzene	ND		0.0010	mg/Kg	1	12/30/2010 03:25 PM
Toluene	ND		0.0010	mg/Kg	1	12/30/2010 03:25 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	12/30/2010 03:25 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	12/30/2010 03:25 PM
Surr: 4-Bromofluorobenzene	*89.1*		*75-131*	*%REC*	1	12/30/2010 03:25 PM
Surr: Trifluorotoluene	*89.9*		*73-130*	*%REC*	1	12/30/2010 03:25 PM
MERCURY			**SW7471A**		Prep Date: **12/29/2010**	Analyst: **JCJ**
Mercury	**0.00675**		**0.00351**	**mg/Kg**	1	12/29/2010 08:13 PM
METALS			**SW6020**		Prep Date: **12/30/2010**	Analyst: **SKS**
Arsenic	**3.31**		**0.476**	**mg/Kg**	1	1/5/2011 02:16 AM
Barium	**308**		**4.76**	**mg/Kg**	10	1/5/2011 09:21 PM
Cadmium	ND		0.476	mg/Kg	1	1/5/2011 02:16 AM
Chromium	**5.08**		**0.476**	**mg/Kg**	1	1/5/2011 02:16 AM
Lead	**4.75**		**0.476**	**mg/Kg**	1	1/5/2011 02:16 AM
Selenium	**0.835**		**0.476**	**mg/Kg**	1	1/5/2011 02:16 AM
Silver	ND		0.476	mg/Kg	1	1/5/2011 02:16 AM
ANIONS			**E300**		Prep Date: **1/4/2011**	Analyst: **JBA**
Chloride	**286**		**49.1**	**mg/Kg**	10	1/5/2011 06:38 AM
Sulfate	**796**		**49.1**	**mg/Kg**	10	1/5/2011 06:38 AM
Surr: Selenate (surr)	*114*		*85-115*	*%REC*	10	1/5/2011 06:38 AM

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

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

Chain of Custody Form

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 #: 1012725

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	WW Effluent	A	BTEX
Work Order		Project Number		B	Metals (totals)
Company Name	Navajo Refining Co	Bill To Company		C	Anions (chlorides + sulphate)
Send Report To	Aaron Strange	Invoice Attn		D	
Address	P.O. Box 159	Address		E	
				F	
City/State/Zip	Artesia NM 88211	City/State/Zip		G	
Phone	575-748-3311	Phone		H	
Fax	575-746-5451	Fax		I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	Leak from 12-2-10 #1	12-21-10	1039	S	N	2	X	X	X								
2	Leak from 12-2-10 #2	"	1050	S	N	2	X	X	X								
3	Leak from 12-2-10 #3	"	1055	S	N	2	X	X	X								
4	Background N32°46'47.7" W104°13'00.3"	"	1020	S	N	2	X	X	X								
5																	
6	Leak from 12-3-10	12-21-10	11:11	S	N	2	X	X	X								
7																	
8	Trip Blank					1											
9	Temp Blank					1											
10																	

Sampler(s) Please Print & Sign: Aaron Strange | Shipment Method: Fed Ex | Required Turnaround Time: (Check Box) ☑ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☐ Other _____ | Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Notes:
Aaron Strange	12-21-10	1615		
Relinquished by:	Date:	Time:	Received by (Laboratory): 12/22/10 1913	Cooler ID / Cooler Temp
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	

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

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

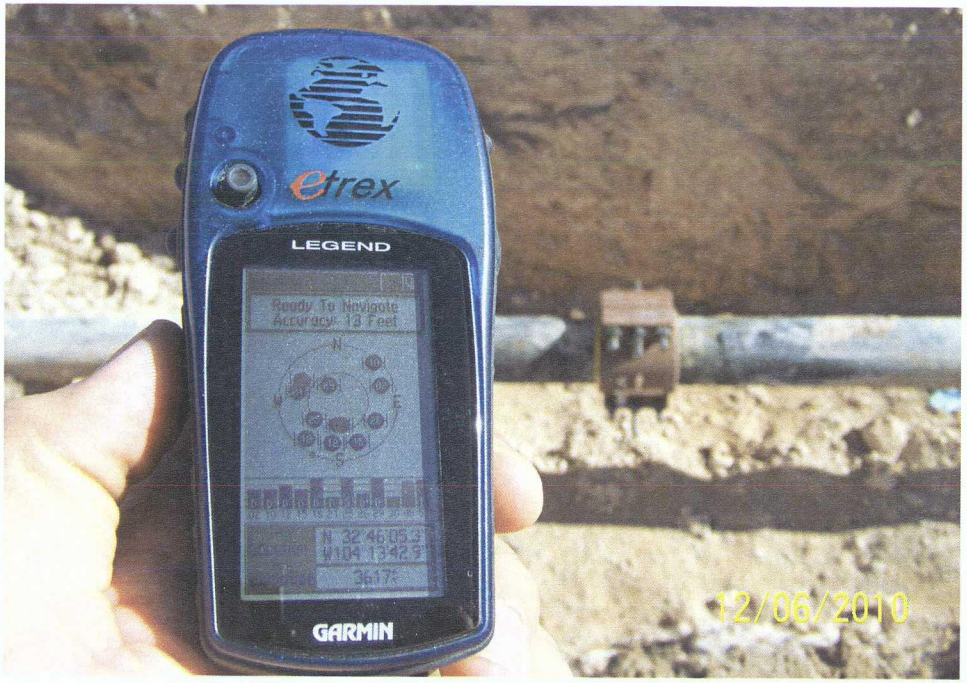
Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody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


12/06/2010


12/06/2010


12/06/2010


12/06/2010


etrex
LEGEND
Ready To Navigate
Accuracy: 13 Feet
GARMIN
12/06/2010


12/06/2010

NON-HAZARDOUS WASTE MANIFEST

64891

PART I: Generator Navajo Refining Co. LLC
Address PO Box 159
City/State Artesia, NM 88211-0159
(575) 748-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia
Permit No. NM0048918817

Property Name _____
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	

DESCRIPTION / NOTES

Cont. Soil 12yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers
Address
City/State
Telephone No.
2
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

1-14-11
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**
(575) 393-1079
Telephone No.
www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

1-14-11
Date and Time Received

TCP - #7520-A

NON-HAZARDOUS WASTE MANIFEST

64899

PART I: Generator Navajo Refining Co. LLC

Address PO Box 159

City/State Artesia, NM 88211-0159

(575) 746-3311
Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia

NMD048918817
Permit No.

Property Name

(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	

DESCRIPTION / NOTES
Cont. Soil 12yds
57Ft Line - Pipe Line Leak

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S. S. Brothers

Address

City/State

Telephone No.

2
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

1/11/11
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**

Address **P.O. Box 388**

City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

1-14-11
Date and Time Received

TCP - #7520-A

NON-HAZARDOUS WASTE MANIFEST

60712

PART I: Generator Navajo Refining Co.LLC

Address PO Box 159 (575) 748-3311

City/State Artesia, NM 88211-0159 Telephone No.

ORGINATION OF WASTE:

Operations Center Artesia Permit No. NMD048918817

Property Name

(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	
DESCRIPTION / NOTES					
Trash & Debris		12yds			

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers

Address Telephone No.

City/State Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.** **(575) 393-1079**

Address **P.O. Box 388** Telephone No.

City/State **Hobbs, N.M. 88241-0388** **www.crihobbs.com**

E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

Date and Time Received

TCP - #7520-A

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Fire	Volume of Release: NA	Volume Recovered: NA
Source of Release: API (Oil Water Separator) lift station at north end of API.	Date and Hour of Occurrence: 1/10/10 ~ 12:05	Date and Hour of Discovery: 1/10/10 ~ 12:05
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left voicemail with OCD District Supervisor (575-748-1283 extension 104).	
By Whom? Aaron Strange	Date and Hour: 1/10/2010 at ~12:29	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
On 1/10/2010 at ~ 12:05 there was a fire at the API (Oil Water Separator) lift station in the WWT (Waste Water Treater Unit # 80). The fire was extinguished with dry chemical and steam hoses then a foam blanket was placed inside the API Sump. All Electrical boxes and pumps were shut off after the fire because of unknown damages. The fire damaged electrical wiring, the platform, and possibly the pumps. Two spare tramp pumps are being used in place of the lift pumps. No one was injured from the event. No waste spilled out or got onto the ground. It is believed that one of the pumps had a non oil resistant power cord that swelled up and allowed the wires to short.

Describe Area Affected and Cleanup Action Taken.*
The area affected was a fire at the API (Oil Water Separator) lift station in the WWT (Waste Water Treater Unit # 80). The fire was extinguished by Navajo Employees.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 1/14/2010 Phone: 575-703-5057		

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Fire	Volume of Release: NA	Volume Recovered: NA
Source of Release: T-1227 Pitch Tank.	Date and Hour of Occurrence: 1/11/10 ~ 02:45	Date and Hour of Discovery: 1/11/10 ~ 02:45
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left voicemail with OCD District Supervisor (575-748-1283 extension 104).	
By Whom? Aaron Strange	Date and Hour: 1/11/2010 at ~03:55	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
On 1/11/2010 at ~ 02:45 there was a fire on the T-1227 Pitch Tank. This pitch in this tank is normally heated to ~ 500°F. Some of the insulation on the tank had been saturated with hydrocarbons. The outside of the tank auto ignited burning the insulation and damaging the outer tin covering. The fire was extinguished with a nearby fire monitor. The inner heating coils have been turned off to lower the temperature for repairs.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the north side of T-1227. The fire damaged insulation and the outer tin covering on the tank. Navajo employees extinguished the fire. Nothing leaked or spilled out onto the ground. Now one was injured form the event.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 1/15/2010 Phone: 575-703-5057		

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Fire	Volume of Release: NA	Volume Recovered: NA
Source of Release: T-1227 Pitch Tank.	Date and Hour of Occurrence: 1/13/10 ~ 23:45	Date and Hour of Discovery: 1/13/10 ~23:45
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left voicemail with OCD District Supervisor (575-748-1283 extension 104) and Carl Chavez with OCD in Santa Fe (505-476-3490).	
By Whom? Aaron Strange	Date and Hour: 1/14/2010 at ~24:12 to OCD District Supervisor, and 1/14/2010 at ~24:16 to Carl Chavez	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
On 1/13/2010 at ~ 23:45 there was another fire on the T-1227 Pitch Tank. Some of the insulation on the tank had been saturated with hydrocarbons and ignited. The pitch in this tank is normally heated to ~ 500°F, but has had the inner heating coils turned off to lower the temperature for repairs from the previous fire on 1/11/2010. The temperature of the tank had not yet cooled off enough for repairs. The outside of the tank auto ignited, further burning the insulation and the outer tin covering. The fire was extinguished with a nearby fire monitor.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the north side of T-1227. The insulation and the outer tin covering on the tank were already damaged from the previous fire. Navajo employees extinguished the fire. Nothing leaked or spilled out onto the ground. Now one was injured form the event.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 1/26/2010 Phone: 575-703-5057		

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
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1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Fire	Volume of Release: NA	Volume Recovered: NA
Source of Release: T-1227 Pitch Tank.	Date and Hour of Occurrence: 1/14/10 ~ 11:00	Date and Hour of Discovery: 1/14/10 ~11:00
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left voicemail with OCD District Supervisor (575-748-1283 extension 104) and Carl Chavez with OCD in Santa Fe (505-476-3490).	
By Whom? Aaron Strange	Date and Hour: 1/14/2010 at ~14:19 to OCD District Supervisor, and 1/14/2010 at ~14:12 to Carl Chavez	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
On 1/14/2010 at ~ 11:00 the T-1227 Pitch Tank began to smoke from the insulation covering the north side of the tank. Some of the insulation on the tank had been saturated with hydrocarbons which started to smoke. The tank had already caught on fire two times before this event. Operators immediately used a fire monitor to cool down the insulation and prevented the insulation form flaring up. The pitch in this tank is normally heated to ~ 500°F, but has had the inner heating coils turned off to lower the temperature for repairs from the first fire on 1/11/2010. The temperature of the tank had not yet cooled off enough for repairs.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the north side of T-1227. The insulation and the outer tin covering on the tank were already damaged from the previous two fires. Nothing leaked or spilled out onto the ground. Now one was injured form the event.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 1/26/2010 Phone: 575-703-5057		

* Attach Additional Sheets If Necessary

District I
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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Fire	Volume of Release: NA	Volume Recovered: NA
Source of Release: Exchanger 359 cooling water return line in unit 37.	Date and Hour of Occurrence: 1/14/10 ~ 11:00	Date and Hour of Discovery: 1/14/10 ~ 11:00
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left voicemail with OCD District Supervisor (575-748-1283 extension 104) and Carl Chavez with OCD in Santa Fe (505-476-3490).	
By Whom? Aaron Strange	Date and Hour: 1/14/2010 at ~14:19 to the OCD District Supervisor, and 1/14/2010 at ~14:17 to Carl Chavez	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
On 1/14/2010 at ~ 11:00 there was a flash fire in unit 37. Pipefitters were cutting on a cooling water return line when it flashed out the end of the pipe. The Pipefitters snuffed out the fire then steamed out the line using a flange and coupling. Safety performed an atmospheric test that passed before issuing the hot work permit. It is believed that a film of hydrocarbon on the inside of the pipe released vapors as the pipefitters heated up the pipe. The vapors then ignited as the torch cut thru the pipe.

Describe Area Affected and Cleanup Action Taken.*
The area affected was in unit 37 near the D-19 fuel drum area on the exchanger 359 cooling water return line. There were no damages from the fire. Pipefitters extinguished the fire. Nothing leaked or spilled out onto the ground. Now one was injured form the event.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 1/15/2010 Phone: 575-703-5057		

* Attach Additional Sheets If Necessary

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State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Fire	Volume of Release: NA	Volume Recovered: NA
Source of Release: Pump seal on W-16 bottoms pump P-178.	Date and Hour of Occurrence: 1/17/10 ~ 02:30	Date and Hour of Discovery: 1/17/10 ~ 02:30
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left voicemail with OCD District Supervisor (575-748-1283 extension 104) and Carl Chavez with OCD in Santa Fe (505-476-3490).	
By Whom? Aaron Strange	Date and Hour: 1/17/2010 at ~03:43 to the OCD District Supervisor, and 1/17/2010 at ~03:46 to Carl Chavez	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
On 1/17/2010 at ~ 02:30 there was a fire at the W-16 bottoms pump P-178 in the Crude Unit. The pump seal failed (two inch opening) which allowed crude oil to spill out and catch on fire. Operations stopped the flow going to W-16. The fire was extinguished after approximately one hour by the refinery's fire fighting team. The investigation team has found a defective screen that would enable foreign matter to pass through the screen, and a third party analysis on the pump believes that foreign material could have lodged in the impeller.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the Crude Unit at the W-16 bottoms pump P-178. The pump and overhead electrical wiring were damaged in the fire. Crude oil spilled out and onto the concrete pad which was then covered with water and foam from fighting the fire. The spill was contained within the unit on the concrete pad. A vacuum truck removed oil and water form the pad and placed it into a FRAC tank. The cleanup crew scooped up crude oil and placed it into hard top bins. Navajo is testing the spilled material for appropriate disposal. No one was injured form the event.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 2/1/2010 Phone: 575-703-5057		

* Attach Additional Sheets If Necessary

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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Fire	Volume of Release: NA	Volume Recovered: NA
Source of Release: T-1227 Pitch Tank.	Date and Hour of Occurrence: 1/20/2010 ~ 19:58	Date and Hour of Discovery: 1/20/2010 ~19:58
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left voicemail with OCD District Supervisor (575-748-1283 extension 104) and Carl Chavez with OCD in Santa Fe (505-476-3490).	
By Whom? Aaron Strange	Date and Hour: 1/20/2010 at ~19:59 to OCD District Supervisor, and 1/20/2010 at ~19:02 to Carl Chavez	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
On 1/20/2010 at ~ 19:58 there was a fourth fire on the T-1227 Pitch Tank. The third fire reported did not have visual flames, only smoke. Some of the insulation on the tank had been saturated with hydrocarbons which ignited. The tank had already caught on fire three times before this event. The fire was extinguished with a nearby fire monitor. The pitch in this tank is normally heated to ~ 500°F, but has had the inner heating coils turned off to lower the temperature for repairs from the first fire on 1/11/2010. The day before this fire occurred (1/19/2010), scaffolding was being constructed to start the removal of the saturated insulation and installing new insulation along with a new outer tin covering over the affected area of the tank.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the north side of T-1227. The insulation and the outer tin covering on the tank were already damaged from the previous fires. Nothing leaked or spilled out onto the ground. No one was injured from the event.

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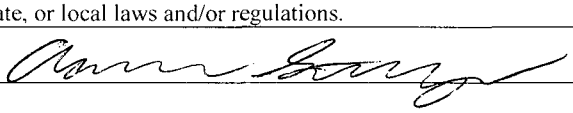
Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 2/04/2010 Phone: 575-703-5057		

* Attach Additional Sheets If Necessary

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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

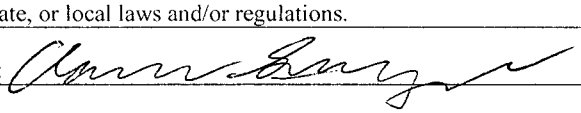
Type of Release: Fire	Volume of Release: NA	Volume Recovered: NA
Source of Release: Tanks T-110 and 438 (started by "carry over" from the South Plant Flare).	Date and Hour of Occurrence: 1/20/2010 ~ 14:54	Date and Hour of Discovery: 1/20/2010 ~14:54
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left voicemail with OCD District Supervisor (575-748-1283 extension 104) and Carl Chavez with OCD in Santa Fe (505-476-3490). Also reported to LEPC Eddy County Emergency Response (575-361-3404) spoke with Joel Arnwine and SERC (505-476-9635) spoke with Yvonne.	
By Whom? Johnny Lackey	Date and Hour: 1/20/2010 at ~15:25 to OCD District Supervisor, 1/20/2010 at ~15:20 to Carl Chavez, 1/20/2010 at ~15:30 to Joel Arnwine (LEPC), and 1/20/2010 at ~15:35 to Yvonne (SERC).	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
On 1/20/2010 at ~ 14:54 there was a fire on Tanks T-110 and T-438. The South Plant Flare carried over which started the fire. Navajo is investigating what caused the flare to carry over. Navajo's fire fighting team extinguished the fire after approximately two hours.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the two tanks (T-438 and T-110) directly east of the South Plant Flare. T-110 was in asphalt service and T-438 was in gas oil service at the time of the fire. The damage to the tanks is being assessed. The South Plant Flare did spill ~3bbls of fluid out onto the ground. A vacuum truck removed the liquid and the contaminated soil was placed into a bin. The bin of contaminated soil will be disposed of per analytical results. Nothing spilled out of the tanks that caught on fire. No one was injured from the event.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 2/04/2010 Phone: 575-703-5057		

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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Fire	Volume of Release: NA	Volume Recovered: NA
Source of Release: W-58 tower flange in Unit 35 (Saturates Gas Plant).	Date and Hour of Occurrence: 1/22/2010 ~ 08:40	Date and Hour of Discovery: 1/22/2010 ~08:40
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Carl Chavez with OCD in Santa Fe (505-476-3490), left a voicemail with Hope Monzeglio from the NMED Haz Waste Bureau (505-476-6045), and spoke with Randy Dade from the OCD Artesia Office (575-748-1283 extension 104).	
By Whom? Johnny Lackey	Date and Hour: 1/22/2010 at ~09:27 to Carl Chavez, 1/22/2010 at ~09:38 to NMED, and 1/22/2010 at ~09:43 to Randy Dade (OCD Artesia Office).	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
On 1/22/2010 at ~ 08:40 there was a small flange fire off of the W-58 tower. The fire was caused by sparks that fell down from welding in an overhead pipe rack. The fire was immediately extinguished with a hand held extinguisher and the flange was tightened to stop the leak.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the flange from the W-58 tower in Unit 35 (Saturates Gas Plant). No damage resulted form the fire. Nothing was spilled from the event and no one was injured.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 2/05/2010 Phone: 575-703-5057		

* Attach Additional Sheets If Necessary

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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

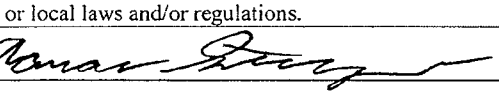
Type of Release: Fire	Volume of Release: NA	Volume Recovered: NA
Source of Release: Inlet flange on D-354.	Date and Hour of Occurrence: 1/30/2010 ~ 11:00	Date and Hour of Discovery: 1/30/2010 ~11:05
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Carl Chavez with OCD in Santa Fe (505-476-3490), left a voicemail with Hope Monzeglio from the NMED Haz Waste Bureau (505-476-6045), and spoke with Randy Dade from the OCD Artesia Office (575-748-1283 extension 104).	
By Whom? Darrell Moore	Date and Hour: 1/31/2010 at ~06:31 to Randy Dade (OCD Artesia Office), 1/31/2010 at ~06:33 to NMED, and1/31/2010 at ~06:37 to Carl Chavez.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
On 1/30/2010 at ~ 11:00 there was a small flange fire on the D-354 inlet flange. Operations snuffed the fire with a steam hose and applied steam ring. Operations continued to monitor. The flange had been previously clamped. The clamp was pumped and sealed to stop the leak.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the D-354 inlet flange in the CCR (Unit 70). No damage resulted form the fire. Nothing was spilled from the event and no one was injured.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 2/12/2010 Phone: 575-703-5057		

* Attach Additional Sheets If Necessary

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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

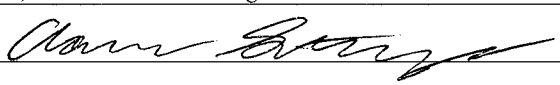
Type of Release: Fire	Volume of Release: NA	Volume Recovered: NA
Source of Release: New Asphalt Tank T-82.	Date and Hour of Occurrence: 3/02/2010 ~12:40	Date and Hour of Discovery: 3/02/2010 ~12:40
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left voicemail with OCD District Supervisor (575-748-1283 extension 104). OCD returned the call. Called LEPC Eddy County Emergency Response (575-361-3404) spoke with Joel Arnwine. Left voicemail with SERC (505-476-9635). Notified Carl Chavez with OCD in Santa Fe and Hope Monzeglio with NMED by email.	
By Whom? Darrell Moore made the phone notifications. Aaron Strange sent the email notification to Carl Chavez (OCD) and Hope Monzeglio (NMED).	Date and Hour: 3/02/2010 at ~12:49 to OCD District Supervisor, 3/02/2010 at ~12:52 to Joel Arnwine (LEPC), and 3/02/2010 at ~12:54 to (SERC). Sent email on 3/02/2010 at ~16:03 to Carl Chavez (OCD) and Hope Monzeglio (NMED).	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
On 3/02/2010 at ~ 12:40 Tank 82 which is a newly constructed asphalt tank that had hydrotest water in it caught on fire. Navajo's fire fighting team extinguished the fire after approximately 90 minutes. No outside responders were needed to control or extinguish the fire. OSHA has jurisdiction over this event and they are currently on site conducting their investigation. At no time was the general public in any danger from a release from this event as verified by the Artesia Fire Department.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the new Asphalt Tank (T-82) which is located at the East end of the plant in the Tank Farm away from other tanks. The fire was isolated to T-82 and no other equipment was damaged from the fire. No groundwater contaminants were released to the ground as a result of the tank fire. The refinery operations were not affected by the fire and the refinery continues to operate without disruption due to this event. The fire resulted in two confirmed injuries that are believed to be serious, one missing and one likely fatality that is pending confirmation by authorities.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 3/04/2010 Phone: 575-703-5057		

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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Fire	Volume of Release: NA	Volume Recovered: NA
Source of Release: Propane water heater used for steam cleaning.	Date and Hour of Occurrence: 04/02/2010 ~23:40	Date and Hour of Discovery: 04/02/2010 ~23:40
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left voicemail with Carl Chavez (Santa Fe OCD @ 505-476-3490). Left voicemail with Randy Dade (Artesia OCD @ 575-748-1283). Left voicemail with Steve Conley (NMED Haz Waste Bureau @ 505-476-6000).	
By Whom? Aaron Strange	Date and Hour: 04/06/2010 at ~11:13 to Carl Chavez (Santa Fe OCD), 04/06/2010 at ~11:17 to Randy Dade (Artesia OCD), and 04/06/2010 at ~11:24 to Steve Conley (NMED Haz Waste Bureau).	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
On 04/02/2010 at ~23:40 a fire occurred in the tank farm near T-1225. A Riley Industrial Employee (Contractor) was lighting a propane water heater that they use for steam cleaning. The heater was described as a water heater mounted on a trailer as part of a portable steam cleaning unit that belongs to the contractor. One of the propane lines was unknowingly disconnected causing a high concentration of gas. When he was trying to light the heater, it flashed causing a slight burn to the face (redness). The employee was checked at the Artesia General Hospital and released back to work. Riley Industrial reported that their steps to prevent recurrence are to double check the gas lines before lighting the heater.

Describe Area Affected and Cleanup Action Taken.*
The fire occurred at the propane water heater on the portable steam cleaning trailer. The trailer was located at Tank 1225 at the time of the incident. Propane for the water heater flashed when the employee was trying to light the heater. The flash caused a slight burn to his face (redness). The employee was checked at the Artesia General Hospital and released back to work. The refinery operations were not affected by the fire. No contaminants were released to the ground as a result of the tank fire and no clean up was needed.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 04/09/2010 Phone: 575-703-5057		

* Attach Additional Sheets If Necessary

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State of New Mexico
Energy Minerals and Natural Resources

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1220 South St. Francis Dr.
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Form C-141
Revised October 10, 2003

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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Fire	Volume of Release: NA	Volume Recovered: NA
Source of Release: Seal/packing leak on the combined feed pump (P-928).	Date and Hour of Occurrence: 04/17/2010 ~ 02:50	Date and Hour of Discovery: 04/17/2010 ~ 02:50
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left voicemail with Carl Chavez (Santa Fe OCD @ 505-476-3490). Left voicemail with Randy Dade (Artesia OCD @ 575-748-1283). Left voicemail with Hope Monzeglio (NMED Haz Waste Bureau @ 505-476-6000).	
By Whom? Johnny Lackey	Date and Hour: 04/17/2010 at ~03:15 to Carl Chavez (Santa Fe OCD), 04/17/2010 at ~03:18 to Randy Dade (Artesia OCD), and 04/17/2010 at ~03:20 to Hope Monzeglio (NMED Haz Waste Bureau).	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
On 04/17/2010 at ~ 02:50, the pump seal/packing on the combined feed pump (P-928) in the FCC (Unit 10) began to leak Gas Oil and caught on fire. The fire was extinguished within approximately one minute using a hand held extinguisher. No one was injured from the event. The pump is on a concrete pad within the unit that has sewers, however nothing spilled out from the pump or got on the ground. The pump has been blocked in, drained and a spare pump is being used.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the pump seal on the combined feed pump (P-928) in the FCC (Unit 10). No one was injured from the fire. The pump has a concrete containment with a sewer, however nothing spilled out from the pump and no cleanup was needed.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 04/28/2010 Phone: 575-703-5057		

* Attach Additional Sheets If Necessary

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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Fire	Volume of Release: NA	Volume Recovered: NA
Source of Release: Flange in the CCR (Unit 70).	Date and Hour of Occurrence: 04/17/2010 ~ 02:50	Date and Hour of Discovery: 04/17/2010 ~ 02:50
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left voicemail with Carl Chavez (Santa Fe OCD @ 505-476-3490). Left voicemail with Randy Dade (Artesia OCD @ 575-748-1283). Left voicemail with Hope Monzeglio (NMED Haz Waste Bureau @ 505-476-6000).	
By Whom? Johnny Lackey	Date and Hour: 04/17/2010 at ~16:44 to Carl Chavez (Santa Fe OCD), 04/17/2010 at ~16:46 to Hope Monzeglio (NMED Haz Waste Bureau), and 04/17/2010 at ~16:49 to Randy Dade (Artesia OCD).	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
On 04/17/2010 at ~ 02:40, a flange in the CCR (Unit 70) caught on fire.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the flange in the CCR (Unit 70). No one was injured from the fire. The flange is on a concrete pad within the unit that has sewers, however nothing spilled out from the pump and no cleanup was needed.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 04/28/2010 Phone: 575-703-5057		

* Attach Additional Sheets If Necessary

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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Fire	Volume of Release: NA	Volume Recovered: NA
Source of Release: North Plant Flare from relief valve in unit 06.	Date and Hour of Occurrence: 04/19/2010 ~ 02:30	Date and Hour of Discovery: 04/19/2010 ~ 02:30
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left voicemail with Carl Chavez (Santa Fe OCD @ 505-476-3490). Left voicemail with Randy Dade (Artesia OCD @ 575-748-1283). Left voicemail with Hope Monzeglio (NMED Haz Waste Bureau @ 505-476-6000).	
By Whom? Johnny Lackey	Date and Hour: 04/19/2010 at ~10:50 to Carl Chavez (Santa Fe OCD), 04/19/2010 at ~10:53 to Randy Dade (Artesia OCD), and 04/19/2010 at ~10:55 to Hope Monzeglio (NMED Haz Waste Bureau).	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
On 04/19/2010 at ~ 02:30, a relief valve from Unit 06 lifted resulting in a small amount of hydrocarbon carrying over causing a small fire at the base of the North Plant Flare. No one was injured from the event.

Describe Area Affected and Cleanup Action Taken.*
The area affected was at the base of the North Plant Flare. No one was injured from the fire. No cleanup was needed.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 04/28/2010 Phone: 575-703-5057		

* Attach Additional Sheets If Necessary

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Revised October 10, 2003

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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Fire (Vacuum Gas Oil)	Volume of Release: NA	Volume Recovered: NA
Source of Release: Bell head leak on exchanger (X-2110) in the Vacuum Unit (Unit 21).	Date and Hour of Occurrence: 05/31/2010 ~ 14:10	Date and Hour of Discovery: 05/31/2010 ~ 14:15
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Spoke with Carl Chavez (Santa Fe OCD @ 505-476-3490). Left voicemail with Artesia OCD (575-748-1283). Spoke with Hope Monzeglio (NMED Haz Waste Bureau @ 505-476-6000).	
By Whom? Aaron Strange	Date and Hour: 06/01/2010 at ~15:06 to Carl Chavez (Santa Fe OCD), 06/01/2010 at ~15:11 to Artesia OCD, and 06/01/2010 at ~15:16 to Hope Monzeglio (NMED Haz Waste Bureau).	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
On 05/31/2010 at ~ 02:10 there was a fire at exchanger X-2110 in the Vacuum Unit (unit 21). The bell head on X-2110 leaked VGO (Vacuum Gas Oil) onto the insulation blanket and flashed. The fire was put out immediately using hand held fire extinguishers. Maintenance tightened the channel head to stop the leak.

Describe Area Affected and Cleanup Action Taken.*
The area affected was bell head on exchanger X-2110 in the Vacuum Unit (unit 21). There were only minor damages to the insulation blanket and no one was injured from the fire. The exchanger is located in a unit that has concrete pad and oily water sewers however nothing got onto the pad or onto the ground. No cleanup was needed.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 06/07/2010 Phone: 575-703-5057		

* Attach Additional Sheets If Necessary

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Energy Minerals and Natural Resources

Oil Conservation Division
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Form C-141
Revised October 10, 2003

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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Fire (Iron Sulfide)	Volume of Release: NA	Volume Recovered: NA
Source of Release: Used filters from filter pots at Waste Water Injection Wells.	Date and Hour of Occurrence: 06/04/2010 ~ 13:00	Date and Hour of Discovery: 06/04/2010 ~ 14:00
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left voicemail with Carl Chavez (Santa Fe OCD @ 505-476-3490). Left voicemail with Artesia OCD (575-748-1283). Left voicemail with Hope Monzeglio (NMED Haz Waste Bureau @ 505-476-6000).	
By Whom? Aaron Strange	Date and Hour: 06/04/2010 at ~13:50 to Carl Chavez (Santa Fe OCD), 06/04/2010 at ~13:53 to Artesia OCD, and 06/04/2010 at ~13:57 to Hope Monzeglio (NMED Haz Waste Bureau).	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
On 06/04/2010 at ~ 13:10, two roll-off bins containing used filters from the filter pots at the Waste Water Injection Wells caught on fire. The filters (containing Iron Sulfide) dried out and ignited in the ~100°F weather. The Navajo fire team responded to the fires and extinguished them with water and dry chemical. The iron sulfide is new to this waste. Navajo has never seen this before. We are investigating to see if any process changes can account for the iron sulfide in this stream.

Describe Area Affected and Cleanup Action Taken.*
The areas affected were the roll-off bins located at the Mewbourn and Chukka Injection Wells. The bins were on concrete containments next to the injection wells. The paint and tarps on the bins were damaged by the fire. No one was injured. No cleanup was needed.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 06/07/2010 Phone: 575-703-5057		

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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Fire (Iron Sulfide)	Volume of Release: NA	Volume Recovered: NA
Source of Release: Used filters from filter pots at Waste Water Injection Wells.	Date and Hour of Occurrence: 06/06/2010 ~ 16:00	Date and Hour of Discovery: 06/06/2010 ~ 16:10
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left voicemail with Carl Chavez (Santa Fe OCD @ 505-476-3490). Left voicemail with Artesia OCD (575-748-1283). Left voicemail with Hope Monzeglio (NMED Haz Waste Bureau @ 505-476-6000).	
By Whom? Doug Price	Date and Hour: 06/06/2010 at ~16:24 to Carl Chavez (Santa Fe OCD), 06/06/2010 at ~16:22 to Artesia OCD, and 06/06/2010 at ~16:26 to Hope Monzeglio (NMED Haz Waste Bureau).	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
On 06/06/2010 at ~ 16:00, a roll-off bin containing used filters from the filter pots at the Waste Water Injection Wells caught on fire again. This was one of the same bins that caught on fire on 06/04/2010. The filters (containing Iron Sulfide) dried out and ignited in the ~100°F weather. The Navajo fire team responded to the fire and extinguished it with water and dry chemical. The filters were transferred into a hard top bin and water was added to the bin to prevent them from igniting again. The iron sulfide is new to this waste. Navajo has never seen this before. We are investigating to see if any process changes can account for the iron sulfide in this stream.

Describe Area Affected and Cleanup Action Taken.*
The area affected was a roll-off bin that was located on the east end of the plant away from all units and tanks. The paint and tarps on the bins were already damaged form the previous fire on 06/04/2010. Nothing else was damaged and no one was injured. No cleanup was needed.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 06/07/2010 Phone: 575-703-5057		

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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Fire	Volume of Release: NA	Volume Recovered: NA
Source of Release: P-2517 Pump Seal	Date and Hour of Occurrence: 06/11/2010 ~ 13:00	Date and Hour of Discovery: 06/11/2010 ~ 14:00
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left voicemail with Carl Chavez (Santa Fe OCD @ 505-476-3490). Left voicemail with Artesia OCD (575-748-1283). Left voicemail with NMED Haz Waste Bureau @ 505-476-6000.	
By Whom? Aaron Strange	Date and Hour: 06/11/2010 at ~17:55 to Carl Chavez (Santa Fe OCD), 06/11/2010 at ~17:57 to Artesia OCD, and 06/11/2010 at ~18:02 NMED Haz Waste Bureau.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
On 06/11/2010 at ~ 17:35 the High Pressure Flush Pump (P-2517) seal went out and leaked LCO (Light Cycle Oil) which caught on fire. Operations extinguished the fire with a handheld fire extinguisher and blocked in the pump. The fire was put out by ~17:40. The spare pump will be used until the P-2517 seal is replaced.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the pump seal on the High Pressure Flush Pump (P-2517) in the ROSE #2 Unit (Unit 25). There were no other damages besides the pump seal. No one was injured from the fire. The pump is on a concrete pad within the unit that has sewers. Nothing spilled out on the ground. No cleanup was needed.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 06/15/2010 Phone: 575-703-5057		

* Attach Additional Sheets If Necessary

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District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
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Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Fire (Natural Gas)	Volume of Release: NA	Volume Recovered: NA
Source of Release: D-8801 (Desulfurizer) top manway gasket leak	Date and Hour of Occurrence: 08/09/2010 ~ 21:20	Date and Hour of Discovery: 08/09/2010 ~ 21:20
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Spoke with Carl Chavez (Santa Fe OCD @ 505-476-3490). Left voicemail with Artesia OCD (575-748-1283 ext. 104). Left voicemail with Hope Monzeglio of the NMED Haz Waste Bureau @ 505-476-6000.	
By Whom? Aaron Strange	Date and Hour: 08/11/2010 at ~11:13 to Carl Chavez (Santa Fe OCD), 08/11/2010 at ~11:24 to Artesia OCD, and 08/11/2010 at ~11:28 to NMED Haz Waste Bureau.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
On 08/09/2010 at ~ 21:20 a fire was discovered at the top manway on D-8801in the #1 Hydrogen Unit (Unit 63). The manway gasket started to leak and the hot feed gas (natural gas) caught on fire. Operations extinguished the fire with a couple handheld fire extinguishers and a steam hose. The fire was put out by ~21:25. D-8801 was in the lead position and operations was able to put D-8802 into the lead position and block in D-8801 without shutting down the unit. D-8801 is being purged with nitrogen until the gasket can be replaced.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the top manway on D-8801 in the #1 Hydrogen Unit (Unit 63). There were no damages from the fire. No one was injured from the fire. Nothing spilled out on the ground. No cleanup was needed.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 08/12/2010 Phone: 575-703-5057		

* Attach Additional Sheets If Necessary

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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Fire (Smoldering slag on wood)	Volume of Release: NA	Volume Recovered: NA
Source of Release: Y-4 Cooling Tower (Out of service and being demolished)	Date and Hour of Occurrence: 09/23/2010 ~ 14:50	Date and Hour of Discovery: 09/23/2010 ~ 14:50
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Spoke with Carl Chavez (Santa Fe OCD at 505-476-3490). Spoke with Randy Dade (Artesia OCD 575-748-1283). Left voicemail with Hope Monzeglio of the NMED Haz Waste Bureau @ 505-476-6000.	
By Whom? Aaron Strange	Date and Hour: 09/24/2010 at ~14:45 to Santa Fe OCD, 09/24/2010 at ~14:50 to Artesia OCD, and 09/24/2010 at ~14:41 to NMED Haz Waste Bureau.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
On 09/23/2010 at ~ 14:50 a fire was reported at Y-4 Cooling Tower. A fan and piping was being removed as part of the demolition of Y-4. While lifting a pipe that had had been cut with a cutting torch, slag fell down and smoldered on the old, dry wood of the cooling tower. The fire alarm was sounded and operations immediately used a fire monitor from the FCC Unit to wet down the wood and prevent it from flaring up.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the inside of Y-4 Cooling Tower south of the FCC Unit (Unit 10). There was no damage to anything other than the cooling tower itself (which is being demolished). No one was injured. Nothing spilled out on the ground. No cleanup was needed.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 09/28/2010 Phone: 575-703-5057		

* Attach Additional Sheets If Necessary

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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Fire (insulation)	Volume of Release: NA	Volume Recovered: NA
Source of Release: Insulation on Tank T-410	Date and Hour of Occurrence: 12/10/2010 ~ 11:00	Date and Hour of Discovery: 12/10/2010 ~ 11:00
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left voicemail with Artesia OCD 575-748-1283. Spoke with Carl Chavez (Santa Fe OCD at 505-476-3490). Left voicemail with Hope Monzeglio of the NMED Haz Waste Bureau at 505-476-6000.	
By Whom? Doug Price	Date and Hour: 12/10/2010 at ~11:50 to Artesia OCD, 12/10/2010 at ~11:53 to Santa Fe OCD, and 12/10/2010 at ~11:58 to NMED Haz Waste Bureau.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
On 12/10/2010 at ~ 14:50 the insulation on Tank T-410 began smoldering while cutting bolts of the clean-out hatch with a cutting torch. Water and a hand-held extinguisher were used to put out the fire. The job was finished using a saw instead of the cutting torch.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the insulation at the clean-out hatch on Tank T-410. There was no damage to anything other than the insulation. No one was injured. No cleanup was needed other than the insulation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 12/22/2010 Phone: 575-703-5057		

* Attach Additional Sheets If Necessary

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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

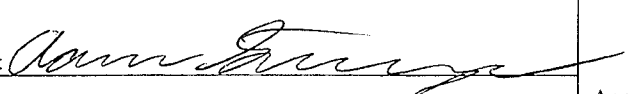
Type of Release: Fire (insulation)	Volume of Release: NA	Volume Recovered: NA
Source of Release: Insulation on piping going to T-814 (pitch tank).	Date and Hour of Occurrence: 12/14/2010 ~ 16:00	Date and Hour of Discovery: 12/14/2010 ~ 16:00
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left voicemail with OCD Santa Fe Office 505-476-3490. Left voicemail with OCD Artesia Office 575-748-1283. Left voicemail with Hope Monzeglio of the NMED Haz Waste Bureau at 505-476-6000.	
By Whom? Estefani Banuelos-Hammond	Date and Hour: 12/14/2010 at ~16:50 to Santa Fe OCD, 12/14/2010 at ~16:52 to Artesia OCD, and 12/14/2010 at ~16:58 to NMED Haz Waste Bureau.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
On 12/14/2010 at ~ 16:00 the insulation blanket on the piping going to Tank T-814 (pitch tank) ignited. Previous packing leaks on valves soaked the insulation on the fuel oil blend line. It is presumed that the heat form the rundown (pitch) combined with the hot oil heat tracing (500°F) caused the hydrocarbon in the insulation to ignite. The fire was extinguished with a hand-held extinguisher and steam. The surrounding insulation was removed. Navajo has replaced all the hydrocarbon soaked insulation in the area.

Describe Area Affected and Cleanup Action Taken.*
The area affected was the insulation blanket, valves, and pipe on the piping going to Tank T-814 (pitch tank). This was approximately eight feet west of T-814 where the pipe leaves the pipe rack and goes to the tank. There was no damage to anything other than the insulation. No one was injured and nothing spilled onto the ground. No cleanup was needed other than the insulation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date: 12/29/2010 Phone: 575-703-5057		

* Attach Additional Sheets If Necessary

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Revised October 10, 2003

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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 7406 South Main Lovington, N.M.	Telephone No. 575-748-3311
Facility Name: Lovington Plant	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release: Fire (Naphtha inside of H-102)	Volume of Release: NA	Volume Recovered: NA
Source of Release: Leaking tub (Naphtha) inside the reboiler (H-102)	Date and Hour of Occurrence: 10/03/10 ~ 03:15	Date and Hour of Discovery: 10/03/10 ~ 04:15
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Left voicemail with Carl Chavez (OCD Santa Fe). Spoke with Michael Leighton (City Manager of Lovington). Left voicemail with Larry Johnson (OCD Hobbs).	
By Whom? Gabriela Combs	Date and Hour: 10/03/2010 at ~04:50 to Larry Johnson Carl Chavez (Local OCD), 10/03/2010 at ~04:53 to Hope Monzeglio (NMED), and 10/03/2010 at ~04:57 to Carl Chavez (OCD Santa Fe).	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.*
On 10/03/2010 at ~ 04:15 a fire was noticed coming out of the inspection doors of the convection section of H-102. Earlier at ~ 03:00 the refinery experienced a power loss that caused the pumps to go down that pump to H-102. These pumps were brought back up at ~ 03:11. It is possible that when these pumps shutdown after the power loss, the sudden loss of flow, followed by a sudden increase of flow upon the pump restart may have produced a hydraulic shock on the weakened area of the tube, contributing to form the observed hole. As a result, the naphtha product leaked outside the tube, starting the fire in the convection section of the reboiler. The leaking tube was removed and replaced.

Describe Area Affected and Cleanup Action Taken.*
The area affected was inside convection section of the reboiler (H-102). A tube ruptured and leaked naphtha which started the fire. The fire was extinguished with foam at ~ 04:50. No hydrocarbons spilled on the ground. Only foam on the concrete, which was directed to the sewer. The fire was contained inside the reboiler's box at all times. There were no injuries or other damages. Smoke was visible out of the H-102 stack.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Aaron Strange	OIL CONSERVATION DIVISION	
Printed Name: Aaron Strange	Approved by District Supervisor:	
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:	Attached ☐
Date:10/15/2010 Phone: 575-703-5057		