UIC - I - <u>8</u>

C-141s

Mewbourne Well No. 1

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

| Santa Fe | | | | | | | 505 | | | | |
|---|--------------|----------------|------------|------------|--|--|-----------------|---|--|--------------|----------|
| Release Notification and Corrective Action | | | | | | | | | | | |
| | | | | | | OPERATOR Initial Report | | | | Final Report | |
| Name of Co | ompany: N | Vavajo Refin | ing Compa | ny, L.L.C. | | Contact: M | like Holder | | | | |
| Address: 5 | 01 E. Maiı | n Street, Arte | esia, NM 8 | 8210 | , | Telephone 1 | No. 575-746-54 | 487 | | | |
| Facility Nat | me: Artes | ia Refinery | | |] | Facility Typ | pe: Petroleum F | Refinery | / | | |
| Surface Ow | ner | | | Mineral C | Owner | | | | API No. | | |
| | | | | LOCA | ATION | N OF RE | LEASE | | | | |
| | | | | | South Line | Feet from the | East/V | West Line County | | | |
| Latitude Longitude NATURE OF RELEASE | | | | | | | | | | | |
| Type of Rele | ease: Refine | ery wastewate | r | | | Volume of Release: Not determined. | | | Volume Recovered: Not applicable (NA) – See below. | | plicable |
| Source of Release: Refinery Wastewater Treatment Plant (WWTP) | | | | | Date and Hour of Occurrence Sample taken on 11/4/13 at 5:35 a.m.; discharge on 11/2/13 at 5:55 a.m. | | | Date and Hour of Discovery: Upon receipt of laboratory analytical results on 11/6/13 at 1:37 p.m. | | | |
| Was Immediate Notice Given? | | | | | If YES, To Whom?OCD Sante Fe, Carl Chavez; left messageNMED Santa Fe, David Cobrain; left message | | | | | | |
| By Whom? Mike Holder | | | | | Date and Hour: 11/6/13 at 8:45 p.m. (OCD); 11/6/13 at 8:50 p.m. (NMED) | | | o.m. | | | |
| Was a Watercourse Reached? | | | | | | If YES, Volume Impacting the Watercourse. NA | | | | | |

If a Watercourse was Impacted, Describe Fully.*

NA

Describe Cause of Problem and Remedial Action Taken.*

The Artesia Refinery is authorized to discharge wastewater from its onsite WWTP to three underground injection control wells pursuant to OCD Permit Nos. UIC-008-01 (WDW-1), UIC-008-2 (WDW-2), and UIC-008-3 (WDW-3). As reported in our immediate notice, on November 6, 2013, the Refinery received laboratory analytical results from a single lab for our wastewater discharge to the three wells on November 4, 2013. The results reported total selenium of 0.98 milligrams/liter (mg/l), and selenium of 1.1 mg/l using the Toxicity Characteristic Leachate Procedure (TCLP). Also, the data received on November 6 indicated that the discharge to the three wells from WWTP Tank 836 on November 2, 2013 may have been greater than the TCLP level of 1.0 mg/l. As explained in our immediate notice, the average of earlier analytical results from two different labs of samples taken of Tank 836 on November 1, 2013 reported total selenium of 0.974 mg/l and selenium of 1.13 mg/l using the TCLP. Tank 836 was not discharging on November 1, and until receipt of the November 4 discharge data, Navajo did not believe that its discharge on November 2 would have been above the TCLP level for selenium. The November 6 data changed Navajo's thinking on this, and we conservatively reported the November 2 discharge. Navajo ceased discharging to the wells on November 5, 2013 concurrently with receipt of the sampling data for October 31 that resulted in our November 5 self-report.

The composition of the wastewater discharge on November 2 and November 4 was generally the same as the Refinery's typical wastewater discharge to the wells, and Navajo has identified certain anomalies in recently reported selenium results, including that selenium levels based on the TCLP are in some instances greater than selenium levels based on a total selenium analysis. Navajo has engaged experts to further analyze whether these results are accurate and valid.

Selenium is a naturally-occurring constituent of the crude oil received and processed at the Refinery, as well as in water used in Refinery processes. Navajo is examining long-term engineering solutions to reduce selenium levels in the Refinery's wastewater discharge, including consideration of various technologies, and has retained an outside engineering firm to assist with this analysis. In addition, the Refinery is promptly taking steps to assess interim, shorter-term methods to lower selenium levels that can be implemented quickly. Navajo will provide OCD with updates on selenium reduction measures consistent with requirements under the ACO.

Describe Area Affected and Cleanup Action Taken.*

As explained above, the wastewater discharge was to three underground injection controls wells permitted by OCD. The discharge is not expected to cause damage or injury because, among other reasons (i) the discharge was not to a watercourse as defined by OCD, (ii) upon injection, the wastewater was added to large volumes of wastewater already in the well formation such that resulting concentrations would be less than the TCLP threshold; (iii) the wells are located beneath the lowest formation that could be an underground source of drinking water, (iv) the wells already contain total dissolved solids greater than 10,000 mg/l, and (v) the wastewater discharge was only slightly above the TCLP level of 1.0 mg/l. As a result, the Company has not identified any harm resulting from the discharge, and no immediate cleanup actions were needed or taken. The Company is continuing to take steps to identify the source of elevated selenium and to take corrective measures.

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.

| | OIL CONSERVATION DIVISION | | | | |
|---|---|------------------|----------|--|--|
| Signature: multi will | Approved by Environmental Specialist: | | | | |
| Printed Name: Mike Holder | | 1 | | | |
| Title: Environmental Manager | Approval Date: | Expiration Date: | | | |
| E-mail Address: Mike.Holder@hollyfrontier.com | Conditions of Approval: | | Attached | | |
| Date: November 13, 2013 Phone: 575-746-5487 | | | | | |
| Attach Additional Shaata If Nagagaany | | | | | |

* Attach Additional Sheets If Necessary

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

| | | | | 50 | inta 1 C, 19191 | 075 | 05 | | |
|--|-------------------|----------------|-------------|-----------------|---|--|----------------|-------------------------|--|
| Release Notification and Corrective Action | | | | | | | | | |
| | | | | | OPE | RA | ΓOR | 🖂 Initi | al Report 🛛 Final Report |
| Name of Co | ompany: N | Vavajo Refin | ing Com | pany, L.L.C. | Contac | t: M | ike Holder | | I |
| | | n Street, Arte | | | Teleph | one l | No. 575-746-54 | 87 | |
| Facility Na | me: Artes | ia Refinery | | | Facility | у Тур | e: Petroleum R | lefinery | |
| Surface Ow | vner | | | Mineral C | Owner | | | API No |). |
| | | | | LOCA | ATION OF | REI | LEASE | | |
| Unit Letter | Section | Township | Range | Feet from the | North/South L | | Feet from the | East/West Line | County |
| | | | | | | | | | |
| | LatitudeLongitude | | | | | | | | |
| | | | La | | | - | | | |
| | | | | NA'I | URE OF R | | | | |
| Type of Rele | ease: Refine | ery wastewate | r | | | | Release: Not | | Recovered: Not applicable |
| C CD | 1 D.C | X 7 4 | · . | | deter | | | | ee below. |
| Source of Re | elease: Refi | nery wastewa | iter Treatr | nent Plant (WWT | | | | Hour of Discovery: Upon | |
| | | | | | - | Sample taken on 10/31/13 at 5:25 a.m. | | | f second set of laboratory l results for split sample, on |
| | | | | | 5.25 | 11/5/13 at 1:58 p.m. | | | |
| Was Immediate Notice Given? | | | | If YE | If YES, To Whom? | | | | |
| 🛛 Yes 🗌 No 🗌 Not Required | | | | equired OCD | OCD Sante Fe, Carl Chavez; left message | | | | |
| | | | | | NME | NMED Santa Fe, David Cobrain; left message | | | |
| By Whom? | Mike Holde | er | | | Date | Date and Hour: 11/5/13 at 4:02 p.m. | | | |
| Was a Water | | | | | | | | the Watercourse. 1 | NA |
| Yes No | | | | | | | | | |

If a Watercourse was Impacted, Describe Fully.*

NA

Describe Cause of Problem and Remedial Action Taken.*

The Artesia Refinery is authorized to discharge wastewater from its onsite WWTP to three underground injection control wells pursuant to OCD Permit Nos. UIC-CLI-008 (I-008) (WDW-1), UIC-CLI-008-1 (I-008-1) (WDW-2), and UICI-008-0 (WDW-3). As reported in our immediate notice, on November 4 and 5, 2013, the Refinery received laboratory analytical results from samples from two different labs of WWTP Tank 836 contents, taken on October 31, 2013. Tank 836 was discharging to the wells on that date. Taking the average of these results, as required under our recently signed Agreed Compliance Order (ACO) with OCD, the results reported total selenium of 0.996 milligrams/liter (mg/l), and selenium of 1.23 mg/l using the Toxicity Characteristic Leachate Procedure (TCLP). A sample at the downstream discharge point also taken on October 31, 2013 reported 1.24 mg/l selenium based on the TCLP. Navajo ceased discharging to the wells on November 5, 2013 concurrently with receipt of the sampling data for October 31 that resulted in our November 5 self-report. Note that Navajo also received laboratory analytical results from split samples from two different labs of WWTP Tank 801 contents, likewise taken on October 31, 2013. Tank 801 was not discharging on that date, and further, although one of these samples reported selenium at 1.09 mg/l using the TCLP, the other sample reported selenium at 0.8 mg/l using TCLP, with a resulting average less than the TCLP level of 1.0 mg/l (at 0.945 mg/l).

The composition of the wastewater discharge on October 31 was generally the same as the Refinery's typical wastewater discharge to the wells, and Navajo has identified certain anomalies in recently reported selenium results, including that selenium levels based on the TCLP are in some instances greater than selenium levels based on a total selenium analysis. Navajo has engaged experts to further analyze whether these results are accurate and valid.

Selenium is a naturally-occurring constituent of the crude oil received and processed at the Refinery, as well as in water used in Refinery processes. Navajo is examining long-term engineering solutions to reduce selenium levels in the Refinery's wastewater discharge, including consideration of various technologies, and has retained an outside engineering firm to assist with this analysis. In addition, the Refinery is promptly taking steps to assess interim, shorter-term methods to lower selenium levels that can be implemented quickly. Navajo will provide OCD with updates on selenium reduction measures consistent with requirements under the ACO.

Describe Area Affected and Cleanup Action Taken.*

As explained above, the wastewater discharge was to three underground injection controls wells permitted by OCD. The discharge is not expected to cause damage or injury because, among other reasons (i) the discharge was not to a watercourse as defined by OCD, (ii) upon injection, the wastewater was added to large volumes of wastewater already in the well formation such that resulting concentrations would be less than the TCLP threshold; (iii) the wells are located beneath the lowest formation that could be an underground source of drinking water, (iv) the wells already contain total dissolved solids greater than 10,000 mg/l, and (v) the wastewater discharge was only slightly above the TCLP level of 1.0 mg/l. As a result, the Company has not identified any harm resulting from the discharge, and no immediate cleanup actions were needed or taken. The Company is continuing to take steps to identify the source of elevated selenium and to take corrective measures.

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.

| pulal a Hill | OIL CONSERVATION DIVISION Approved by Environmental Specialist: | | | | |
|--|---|--------------|----------|--|--|
| Signature: | | | | | |
| Printed Name: Mike Holder | | | | | |
| Title: Environmental Manager | Approval Date: | Expiration D | Pate: | | |
| E-mail Address: Michael.Holder@hollyfrontier.com | Conditions of Approval: | | Attached | | |
| Date: November 11, 2013 Phone: 575-746-5487 | | | | | |
| Attach Additional Shoats If Nacassary | | | | | |

* Attach Additional Sheets If Necessary

Chavez, Carl J, EMNRD

| From: | Chavez, Carl J, EMNRD |
|----------|---|
| Sent: | Tuesday, December 07, 2010 6:27 AM |
| То: | Moore, Darrell; 'Lackey, Johnny' |
| Cc: | Dade, Randy, EMNRD; VonGonten, Glenn, EMNRD; 'Strange, Aaron' |
| Subject: | Effluent Line Design Work Plan Submittal Date Request |

Darrell and Johnny:

Good morning. The OCD continues to notice problems with leakage at various locations along the effluent line to the UIC Class I (NH) Wells. Navajo Refining Company (NRC) should provide GPS coordinates for all releases on the C-141 form.

OCD hereby requests the official submittal date to the OCD for the effluent line design work plan that NRC has indicated it wants to replace my March of 2011.

Thank you.

Carl J. Chavez, CHMM New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505 Office: (505) 476-3490 Fax: (505) 476-3462 E-mail: <u>CarlJ.Chavez@state.nm.us</u> Website: <u>http://www.emnrd.state.nm.us/ocd/</u>index.htm (Pollution Prevention Guidance is under "Publications")

Chavez, Carl J, EMNRD

| From: Sent: | Chavez, Carl J, EMNRD Tuesday, June 08, 2010 6:23 AM |
|----------------|--|
| То: | 'Lackey, Johnny' |
| Cc: | VonGonten, Glenn, EMNRD |
| Subject: | C-141 Recent Waste Water Filter Fires at Refinery & Now UIC Class I (NH) Disposal Wells. |

Re:

| UIC Injection Well Filters at Roll-Off Bins @ Chuka & Mewbourn Class I (NH) Disposal Wells | Fire | None | Unknown | One fire out at time of call w/ other fire being addressed | 6/4/10 0:00 | Followup to determine disposal flu would ignit under STP |
|---|------|------|---------|--|-------------|--|
| Filters in Roll-Off Bins at Artesia Refinery | Fire | None | Unknown | Extinguished in few minutes | 6/6/10 0:00 | Followup to determine waste wate would ignit under STP |

Johnny:

Good morning. These roll-off bin waste water filter fires have been reoccurring at the refinery and now showing up at the disposal wells. Could you please review the analytical from UIC disposal fluid and let me know what chemical you think may be reacting at STP with filters to auto-ignite or what is causing this so Navajo can implement CA?

Thank you.

Carl J. Chavez, CHMM New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505 Office: (505) 476-3490 Fax: (505) 476-3462 E-mail: <u>CarlJ.Chavez@state.nm.us</u> Website: <u>http://www.emnrd.state.nm.us/ocd/</u>index.htm (Pollution Prevention Guidance is under "Publications")

State of New Mexico Energy Minerals and Natural Resources

Final Report

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Initial Report

Release Notification and Corrective Action

OPERATOR

| Name of Company: Navajo Refining Co. LLCContact: Aaron StrangeAddress: 501 E. Main Street Artesia, N.M. 88210Telephone No. 575-748-3311Facility Name: Artesia RefineryFacility Type: Petroleum Refinery | | | | 1 | |
|---|---|---------------------------------|----|---|------|
| | Name of Company: Navajo Refining Co. LLC | Contact: Aaron Strange | | | |
| Facility Name: Artesia Refinery Facility Type: Petroleum Refinery | Address: 501 E. Main Street Artesia, N.M. 88210 | Telephone No. 575-748-3311 | | | |
| | Facility Name: Artesia Refinery | Facility Type: Petroleum Refine | ry | | |

| 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 | Date and Hour of Occurrence: | Date and Hour of Discovery: 06/04/2010 |
| Wells. | 06/04/2010 ~ 13:00 | ~ 14:00 |
| Was Immediate Notice Given? | If YES, To Whom? Left voicemail | with Carl Chavez (Santa Fe OCD @ 505- |
| 🛛 Yes 🗌 No 🗍 Not Reguired | 476-3490). Left voicemail with Art | tesia OCD (575-748-1283). Left voicemail |
| | with Hope Monzeglio (NMED Haz | z Waste Bureau @ 505-476-6000). |
| By Whom? Aaron Strange | | 50 to Carl Chavez (Santa Fe OCD), |
| , | | CD, and 06/04/2010 at ~13:57 to Hope |
| | Monzeglio (NMED Haz Waste Bu | reau). |
| Was a Watercourse Reached? | If YES, Volume Impacting the Wa | |
| 🗌 Yes 🖾 No | 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 t | | |
| (containing Iron Sulfide) dried out and ignited in the ~100°F weather. The | | |
| dry chemical. The iron sulfide is new to this waste. Navajo has never see | n this before. We are investigating to s | ee 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 Ch | | |
| 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 | | |
| regulations all operators are required to report and/or file certain release i | | |
| public health or the environment. The acceptance of a C-141 report by the | | |
| should their operations have failed to adequately investigate and remedia | | |
| or the environment. In addition, NMOCD acceptance of a C-141 report | does not relieve the operator of respon | sibility for compliance with any other |
| federal, state, or local laws and/or regulations. | | ····· |
| | OIL CONSERV | VATION DIVISION |
| Class 0- | | |
| Signature: annang | | |
| | Approved by District Supervisor: | |
| Printed Name: Aaron Strange | | |
| | | |
| Title: Sr. Environmental Technician | Approval Date: | Expiration Date: |
| | | |
| E-mail Address: aaron.strange@hollycorp.com | Conditions of Approval: | Attached |
| | | Attached |
| Date: 06/07/2010 Phone: 575-703-5057 | | |

* Attach Additional Sheets If Necessary