

**NM2 - \_\_\_\_\_10\_\_\_\_\_**

**GENERAL  
CORRESPONDENCE  
YEAR(S):**

**\_\_\_\_\_2013 - 2016\_\_\_\_\_**

State of New Mexico  
Energy, Minerals and Natural Resources Department

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**Susana Martinez**  
Governor

**David Martin**  
Cabinet Secretary

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**David R. Catanach, Division Director**  
Oil Conservation Division



September 10, 2015

Kelly Robinson  
Western Refining Southwest, Inc.  
111 County Road 4990  
Bloomfield, New Mexico 87413

**RE: Release Response Sampling Results and Action Plan Review  
Western Refining Southwest, Inc.  
Bisti Landfarm  
Permit NM2-010  
Location: Unit F of Section 16, Township 25 North, Range 12 West, NMPM  
San Juan County, New Mexico**

The Oil Conservation Division (OCD) has completed the review of Western Refining Southwest, Inc.'s (Western) Release Response Sampling Results and Action Plan, dated July 27, 2015. The review has resulted in some minor issues that must be addressed in order for Western to remain compliant with Permit NM2-010 and 19.15.36 NMAC.

In Section 5.2.2 of the action plan, the general sampling protocol regarding chlorides states "For each sample location, a sample will be collected from three to four feet below native surface, and another sample approximately 2 feet deeper to vertical migration effects at each location." Section 5.3.2 of the action plan, the general sampling protocol regarding TPH states "All new soil samples will be collected between three feet and four feet below the original ground surface, then advancing an additional two feet beyond that to collect another soils sample to assist in vertical delineation of impact." Section 5.4 of the action plan, the general sampling protocol regarding sulfate states "the two samples will be collected from between three feet and four feet below the original ground surface and an additional two feet beyond." OCD agrees that the vertical extent of the release of contaminants in the vadose zone (native soils and monitoring zone) needs to be delineated. However, delineation begins at surface of the native soils, not three to four feet below the native ground surface.

The first sentence of Section 5.5, Sampling Method, of the action plan states "Western proposes to utilize a track-mounted Geoprobe® direct-push grilling rig and/or hand auger to obtain the additional soils samples." Each proposed method is capable of obtaining samples representing six-inch intervals down to a minimum depth of four feet below the native ground surface, which is needed to delineate the vertical extent of the contaminants of concern. The action plan currently proposes to obtain separate samples for chloride, TPH, and sulfate from separate

sample locations. OCD has observed that some of the proposed sample locations for each constituent are the same. OCD recommends Western compare the proposed sampling locations to determine commonalities. If the same location is proposed for each constituent, then the samples obtained should be analyzed for all of the constituents of concern, instead of sampling separate locations and running analyses for each constituent per its sample location, as proposed. OCD also recommends that the sampling method protocol include an additional step that requires the removal of the treatment zone soils (soils to be remediated) from and around the sample location prior to sampling to prevent cross-contamination of the samples obtained from the vadose zone (native soils).

OCD concurs with Western request, in Section 5.6 of the action plan, “to delay the implementation of the Release Response Action Plan until after complete execution and evaluation of the Background Sampling Plan results to allow an opportunity to modify the Release Action Plan...” This will provide Western the opportunity to complete the vadose zone assessment for releases, pursuant to 19.15.36.15.E NMAC, for the additional 39 constituents to determine if additional constituents of concern require delineation under the proposed action plan.

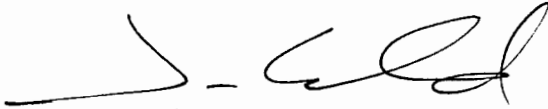
In regards to the proposed sample locations, it seems Western is proposing to sample locations adjacent to historical locations in which contaminants have been detected above the established background or PQL. In OCD’s review of Figure 3, regarding proposed borehole locations for chloride analysis, this is not always the case. Within the API Cell, there are three locations, based upon the chloride concentration legend, in which no sampling is proposed where the map legend demonstrates that chloride concentrations were detected between 1,000 – 1,999 mg/kg (green), 2,000 – 2,999 mg/kg (yellow) and 3,000 – 3,999 mg/kg (orange). Specifically, the orange dot north of the area identified as the *Source Boundary*. The nearest proposed sampling location is approximately 50 feet south. The next are the yellow and green dots above *Pettigrew*. Sampling is proposed approximately 50 feet north where chloride was detected between 50 -250 mg/kg, approximately 50 feet northwest where no sampling has occurred or chlorides detected, and approximately 50 feet southeast where no sampling has occurred or chlorides detected. The last is the green dot above *Cell of API Cell*. The nearest proposed sampling location is approximately 100 feet east. OCD requires these locations to be delineated. Please modify Figure 3 and submit with the modified Release Action Plan after the facility background is resolved.

In OCD’s review of Figure 4, regarding proposed borehole locations for TPH (total petroleum hydrocarbon) analysis, OCD noticed that no sampling is proposed adjacent to the locations in which the highest concentrations of TPH has been detected. Within the Eastline area of the Crude Cell, along the eastern portion, no sampling is proposed adjacent to the two red dots. The southeast location identifies that TPH was detected at 830 mg/kg in June 2011. Sampling is proposed approximately 50 feet north-northwest where no sampling has occurred or TPH detected and approximately 50 feet south-southeast where no sampling has occurred or TPH detected. The northeast location identifies that TPH was detected at 201 mg/kg in September 2010. Sampling is proposed approximately 50 feet north-northeast where no sampling has occurred or TPH detected and approximately 50 feet south-southwest where no sampling has occurred or TPH detected. OCD requires these locations to be delineated. Please modify Figure 4 and submit with the modified Release Action Plan after the facility background is resolved.

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Please resubmit the Release Response Sampling Results and Action Plan after completing the execution and evaluation of the Background Sampling Plan and updating the action plan based upon OCD's requested modifications. If there are any questions regarding this matter, please do not hesitate to contact Brad Jones of my staff at (505) 476-3487 or [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,

A handwritten signature in black ink, appearing to read 'J. Griswold', with a long horizontal line extending to the left.

Jim Griswold  
Environmental Bureau Chief

JG/baj

cc: OCD District III Office, Aztec

State of New Mexico  
Energy, Minerals and Natural Resources Department

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**Susana Martinez**  
Governor

**David Martin**  
Cabinet Secretary

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**David R. Catanach, Division Director**  
Oil Conservation Division



August 18, 2015

Kelly Robinson  
Western Refining Southwest, Inc.  
111 County Road 4990  
Bloomfield, New Mexico 87413

**RE: Supplement Facility Background Sampling Plan Review  
Western Refining Southwest, Inc.  
Bisti Landfarm  
Permit NM2-010  
Location: Unit F of Section 16, Township 25 North, Range 12 West, NMPM  
San Juan County, New Mexico**

Dear Ms. Robinson:

The Oil Conservation Division (OCD) has completed the review of Western Refining Southwest, Inc.'s (Western) Supplement Facility Background Sampling Plan, dated July 24, 2015, to obtain additional background data to combine with the existing 1998 background data in order to complete vadose zone monitoring assessments to determine whether a release has occurred within the vadose zone. Based upon the information provided in the background sampling plan, Western's proposal is **hereby approved** with the following understandings and conditions:

1. Western shall comply with the applicable requirements of the Surface Waste Management Facilities Rule (19.15.36 NMAC), the Oil and Gas Act (Chapter 70, Article 2 NMSA 1978), Permit NM2-010, and all conditions specified in this approval;
2. OCD conditionally approves the "summation of gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO) determined by United States Environmental Protection Agency Method 8015 as a valid method for assessing total petroleum hydrocarbon (TPH) concentration in the vadose zone," if the test method is able to demonstrate a carbon range of C<sub>6</sub> through C<sub>36</sub>, which OCD considers to be the equivalent to EPA Method 418.1.
3. Western shall obtain written approval from OCD prior to implementing any changes to the July 24, 2015 Supplement Facility Background Sampling Plan.

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Please be advised that approval of this request does not relieve Western of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve Western of its responsibility to comply with any other applicable governmental authority's rules and regulations.

If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,

A handwritten signature in black ink, appearing to read 'Brad A. Jones', with a large, stylized flourish extending to the right.

Brad A. Jones  
Environmental Engineer

BAJ/baj

cc: OCD District III Office, Aztec

State of New Mexico  
Energy, Minerals and Natural Resources Department

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**Susana Martinez**  
Governor

**David Martin**  
Cabinet Secretary

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**David R. Catanach, Division Director**  
Oil Conservation Division



June 3, 2015

Kelly Robinson  
Western Refining Southwest, Inc.  
111 County Road 4990  
Bloomfield, New Mexico 87413

**RE: May 2014 Release Response Report Review  
Western Refining Southwest, Inc.  
Bisti Landfarm  
Permit NM2-010  
Location: Unit F of Section 16, Township 25 North, Range 12 West, NMPM  
San Juan County, New Mexico**

The Oil Conservation Division (OCD) has completed the review of Western Refining Southwest, Inc.'s (Western) Response to OCD Review of the 2012 Monitoring Reports, dated May 16, 2014, and the May 2014 Release Response Report. OCD appreciates Western's efforts to implement changes to your monitoring protocols to comply with the requests in OCD's 2012 Monitoring Reports Review, dated April 8, 2014. OCD also appreciates the submittal of the release response report, promised in the 2010 Annual Monitoring Report, dated June 3, 2010. The review of the May 2014 Release Response Report has resulted in the discovery of some issues that must be addressed in order for Western to remain compliant with Permit NM2-010 and 19.15.36 NMAC.

OCD review has determined that there seems to be some confusion on Western's behalf when discussing the release response results. In Section 2.0, *Vadose Zone Soil Sampling Results*, of the Release Response Report, the discussion of the analytical data compares the results to "the respective laboratory detection limit." Task 3 of the OCD approved Release Response Plan, cover letter dated January 4, 2010, states "Results will be compared with the higher of the Practical Quantitative Limit (PQL) and the background soils concentration to determine downward migration has occurred." Section 2.0 did not provide the required and approved assessment.

The first paragraph of Section 3.0, *Conclusions*, states "Western identified chloride concentrations above the 1998 baseline concentrations at two locations within the Crude Cell and at four locations within the API Cell. However, there are only two locations where the detected concentrations are above the 1,000 mg/kg screening level for [treatment zone closure]." OCD wishes to clarify that the treatment zone are the soils to be remediated and the vadose zone are the native soils beneath the treatment zone. The release response plan was approved to reassess

the vadose zone to determine if a release has occurred, due to reported detections. Pursuant to 19.15.36.15.E NMAC, the operator is required to compare the vadose results "to the higher of the PQL or the background soil concentrations to determine whether a release has occurred." The treatment zone (soils to be remediated) closure performance standards of 19.15.36.15.F NMAC are not applicable to the native soils (vadose zone) beneath the soils to be remediated.

The second paragraph of Section 3.0, *Conclusions*, states "Additionally, only one sample detected concentrations above the respective laboratory reporting limits for TPH-DRO. However the detected concentration was below the 1998 baseline sample results. All other samples did not contain concentrations above the laboratory reporting limits." Task 3 of the OCD approved Release Response Plan, cover letter dated January 4, 2010, states "Results will be compared with the higher of the Practical Quantitative Limit (PQL) and the background soils concentration to determine downward migration has occurred." The comparison to "the respective laboratory detection limit" is not the assessment Western proposed or OCD approved.

In OCD February 1, 2010 approval of Western's Release Response Plan, cover letter dated January 4, 2010, specified two conditions. The first conditions stated "Western shall verify and confirm previous vadose sampling results by testing the vadose zone of the active cells for TPH, BTEX and chlorides using EPA methods 8015M, 8021B, and 300.1, respectively." The second condition specified "If the verification sampling results demonstrate the presence of contaminants in the vadose zone, Western shall submit a revised release response plan that proposes a defined protocol for delineating the extent of the contamination in compliance with the testing protocols and parameters of Paragraph (5) of Subsection E of 19.15.36.15 NMAC for OCD review and consideration of approval." The second condition has not been pursued or recognized by Western in any of the follow up correspondence with OCD.

In order for Western to proceed, certain issues regarding the facility background need to be resolved. Currently, Western does not have the complete background data to perform the vadose zone assessment as required by Part 36. The April 1998 background data set provides results for the following 21 analytes: potassium, selenium, silver, sodium, sulfate, chloride, carbonates, bicarbonates, arsenic, barium, cadmium, calcium, chromium, lead, magnesium, mercury, diesel range organics (DRO), benzene, toluene, ethyl benzene, and total xylene. To complete the release response initial assessment, background needs to be established for TPH. Part 36 specifies EPA Method 418.1 as the required vadose zone analyses for TPH. OCD is willing to accept an equivalent method to EPA Method 418.1 that is capable of demonstrating a carbon range from C<sub>6</sub> to C<sub>36</sub> (e.g. Method 8015 for GRO/DRO/MRO or ORO). To finish the 2012 five year vadose zone assessment, background needs to be established for copper, iron, manganese, and zinc. If follow up and/or future quarterly vadose zone monitoring demonstrate exceedances, then the additional analysis will be needed to complete the comparison to the 46 analytes required by 19.15.36.15.E NMAC. Please submit a background sampling plan to OCD under a separate cover, for OCD's consideration of approval to update the existing background data set and complete the release response and five year vadose zone assessments.

Please submit a background sampling plan to OCD under a separate cover, for OCD's consideration of approval to update the existing background data set and complete the release response and five year vadose zone assessments within 60 days of the date of this letter. Please submit a revised version of the Release Response Plan that provides an appropriate discussion of the vadose zone results and a comparison to the updated facility background, within 90 days of



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the date of this letter. Please submit an amendment for the 2012 five vadose zone assessment that includes a comparison of the laboratory results required for the five year demonstration to the updated facility background within 90 days of the date of this letter. Since the laboratory results confirm chloride contamination within the vadose zone, please pursue and initiate the action specified in the second condition of OCD's approval, dated February 1, 2010, of the 2010 release response plan.

OCD has implemented some new policies for submittal. For future submittals, please include a cover letter from the owner/operator, on the owner's/operator's company letterhead, that recognizes the owner/operator has reviewed the submittal, signed by the owner/operator. Also, please provide an updated facility map, for each individual sampling event, that identifies the individual landfarm cells within the facility boundary and indicate the approximate location within the landfarm cells in which the samples were obtained. If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,

A handwritten signature in black ink, appearing to read 'Brad A. Jones', with a large, stylized loop at the end.

Brad A. Jones  
Environmental Engineer

BAJ/baj

cc: OCD District III Office, Aztec

State of New Mexico  
Energy, Minerals and Natural Resources Department

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**Susana Martinez**  
Governor

**David Martin**  
Cabinet Secretary

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**David R. Catanach, Division Director**  
Oil Conservation Division



May 29, 2015

Kelly Robinson  
Western Refining Southwest, Inc.  
50 County Road 4990  
Bloomfield, New Mexico 87413

**RE: 2014 Annual Sampling Report Review**  
**Western Refining Southwest, Inc.**  
**Bisti Landfarm**  
**Permit NM2-010**  
**Location: Unit F of Section 16, Township 25 North, Range 12 West, NMPM**  
**San Juan County, New Mexico**

The Oil Conservation Division (OCD) has completed the review of Western Refining Southwest, Inc.'s (Western) 2014 Annual Sampling Report, dated March 4, 2015, that includes semi-annual treatment zone monitoring results and the quarterly vadose zone monitoring results. OCD appreciates Western's efforts to implement changes to your monitoring protocols to comply with the requests in OCD's 2012 Monitoring Reports Review, dated April 8, 2014. The review of the 2014 Annual Sampling Report has resulted in the discovery of some issues that must be addressed in order for Western to remain compliant with Permit NM2-010 and 19.15.36 NMAC (Part 36).

The first sentence of the fourth paragraph of the *Executive Summary*, states "Soil sampling results are presented in the report and vadose zone soil analytical results are compared to the laboratory physical quantitation limit and background sample results, [when available]." Comparing "when available" is not a consideration under Part 36 or Permit NM2-010. The effective date of Part 36 was February 14, 2007. The regulation has been in effect for eight years. At this point in time, the complete facility background should have been established. In order for Western to proceed, certain issues regarding the facility background need to be resolved. Currently, Western does not have the complete background data to perform the vadose zone assessment as required by Part 36 or pursue closure. The April 1998 background data set provides results for the following 21 analytes: potassium, selenium, silver, sodium, sulfate, chloride, carbonates, bicarbonates, arsenic, barium, cadmium, calcium, chromium, lead, magnesium, mercury, diesel range organics (DRO), benzene, toluene, ethyl benzene, and total xylene. To complete the release response initial assessment, background needs to be established for TPH. Part 36 specifies EPA Method 418.1 as the required vadose zone analyses for TPH. OCD is willing to accept an equivalent method to EPA Method 418.1 that is capable of

demonstrating a carbon range from C<sub>6</sub> to C<sub>36</sub> (e.g. Method 8015 for GRO/DRO/MRO or ORO). To finish the 2012 five year vadose zone assessment and to pursue closure, background needs to be established for copper, iron, manganese, and zinc. If follow up and/or future quarterly vadose zone monitoring demonstrate exceedances, then the additional analysis will be needed to complete the comparison to the 46 analytes required by 19.15.36.15.E NMAC. Please submit a background sampling plan to OCD under a separate cover, for OCD's consideration of approval to update the existing background data set and complete the vadose zone assessments and to pursue closure.

The fifth paragraph of the *Executive Summary*, states "Since treatment zone monitoring results do not exceed the Treatment Zone Closure Performance Standards identified in Rule 36, Western will consider pursuing closure of the landfarm in 2015." Please submit a closure/post-closure care plan to OCD under a separate cover, for OCD's consideration of approval.

The second paragraph of Section 4.0, *Conclusions*, states "Western conducted vadose zone soil sampling in accordance with the original 711 permit and Rule 36, and results were compared to laboratory PQLs and background concentrations for review. Laboratory analytical results were consistent with historical monitoring results." Pursuant to 19.15.36.15.E NMAC regarding vadose zone monitoring, the operator "shall compare each result to the higher of the PQL or the background soil concentrations to determine whether a release has occurred." The conclusion does not provide a determination of "whether a release has occurred" as required of Part 36. Please complete the vadose zone assessment as required of Part 36.

The second paragraph of Section 4.0, *Conclusions*, also states "Western submitted a Release Response Plan to the NMOCD on December 31, 2009. Upon approval from the NMOCD, Western initiated the Release Response Plan, and results were reported to NMOCD on June 3, 2010." OCD would like to clarify that a summary table of the Release Response Plan results were included in the June 3, 2010 Annual Sampling at Western Refining's Centralized Surface Waste Management Facility Report, but it was not an incomplete submittal of the results. The June 3, 2010 submittal stated "A Release Response Plan was approved by the New Mexico Oil Conservation Division (NMOCD) and has been initiated. Results are being evaluated in a written report to be submitted to the NMOCD, and a proposal for remedial action is forthcoming." OCD received the written report on May 19, 2014, dated May 16, 2014. A "proposal for remedial action" was not provided in the May 2014 submittal. OCD's review, dated March 28, 2015, of Western's Response to OCD Review of the 2012 Monitoring Reports, dated May 16, 2014, and the May 2014 Release Response Report has been mailed and should be received soon.

The review of Table 2, *2014 Quarterly Vadose Zone Soil Analytical Results*, resulted in the discovery of missing background data. The *Background Sample* column of Table 2 indicated that calcium, magnesium, potassium, and sodium were not analyzed during the March 27, 1998 background sampling event. OCD review of the administrative file (OCD Online) resulted in the discovery of missing background data from Table 2. The March 27, 1998 laboratory analytical results demonstrated the following background concentrations: calcium was detected at 2500 mg/kg, magnesium was detected at 1300 mg/kg, potassium was detected at 510 mg/kg, and sodium was detected at 90 mg/kg. The March 27, 1998 laboratory analytical results also demonstrated that sulfate was detected at 140 mg/kg, instead of the 180 mg/kg provided on Table 2. Please include and update the background data for future submittals.

The review of Table 2, *2014 Quarterly Vadose Zone Soil Analytical Results*, resulted in the discovery of confirmed exceedances for chlorides, calcium, magnesium, potassium, sodium, and sulfate. In comparing the March 1998 background of less than 50 mg/kg for chloride, contamination was confirmed in the Pettigrew section of the Crude Cell during the March 2014 quarterly vadose zone sampling event at 2,200 mg/kg, the June 2014 event at 120 mg/kg, the September 2014 event at 780 mg/kg, and in the December 2014 event at 350 mg/kg and also in the API Cell during the June 2014 event at 2,300 mg/kg. In comparing the March 1998 background of 2,500 mg/kg for calcium, contamination was confirmed in three sections of the Crude Cell during the March 2014 quarterly vadose zone sampling event: West Line section at 2,600 mg/kg, East Line section at 3,500 mg/kg, and the Bisti section at 5,000 mg/kg. In comparing the March 1998 background of 1,300 mg/kg for magnesium, contamination was confirmed in two sections of the Crude Cell during the March 2014 quarterly vadose zone sampling event: East Line section at 1,700 mg/kg, and the Bisti section at 1,500 mg/kg. In comparing the March 1998 background of 810 mg/kg for potassium, contamination was confirmed in two sections of the Crude Cell during the March 2014 quarterly vadose zone sampling event: East Line section at 1,300 mg/kg, and the Bisti section at 950 mg/kg. In comparing the March 1998 background of 90 mg/kg for sodium, contamination was confirmed in three sections of the Crude Cell during the March 2014 quarterly vadose zone sampling event: West Line section at 150 mg/kg, East Line section at 100 mg/kg, and the Bisti section at 1,200 mg/kg and also in the API Cell during the March 2014 event at 250 mg/kg. Due to providing the incorrect background concentration of 180 mg/kg for sulfate, instead of the documented laboratory analytical result of 140 mg/kg, the exceedances from the March 2014 quarterly vadose zone sampling event of the Pettigrew section of the Crude Cell at 180 mg/kg and the API Cell at 150 mg/kg were not recognized. Pursuant to 19.15.36.15.E NMAC, the operator is required to compare the vadose results “to the higher of the PQL or the background soil concentrations to determine whether a release has occurred.” OCD has determined that the comparison assessment “to determine whether a release has occurred” was not completed since none of the above mentioned exceedance were mentioned or discussed in Section 3.0 *Analytical Results*, Section 4.0 *Conclusions*, and Section 5.0 *Recommendations* of the written portion of the report.

The chloride exceedances are clearly visible on Table 2, *2014 Quarterly Vadose Zone Soil Analytical Results*. The importance of this factor is compliance with Part 36. In accordance to 19.15.36.15.E.(5) NMAC, “If vadose zone sampling results show that the concentrations of TPH, BTEX or chlorides exceed the higher of the PQL or the background soil concentrations, then the operator shall notify the division’s environmental bureau of the exceedance, and shall immediately collect and analyze a minimum of four randomly selected, independent samples for TPH, BTEX, chlorides and the constituents listed in Subsections A and B of 20.6.2.3103 NMAC. The operator shall submit the results of the re-sampling event and a response action plan for the division’s approval within 45 days of the initial notification. The response action plan shall address changes in the landfarm’s operation to prevent further contamination and, if necessary, a plan for remediating existing contamination.” The first exceedance of chloride was confirmed from the March 2014 vadose zone sampling event. Western’s practice of submitting quarterly vadose zone results in an annual report has resulted in OCD’s discovery of the exceedance approximately one year later, which does not satisfy the regulatory requirements and timelines specified for compliance with 19.15.36.15.E.(5) NMAC. Please demonstrate compliance with 19.15.36.15.E.(5) NMAC by initiating the required additional sampling and submitting a response action plan. Also, please submit all future vadose zone monitoring results in quarterly

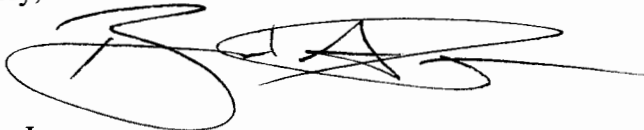
Ms. Robinson  
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reports to demonstrate compliance to 19.15.36.15.E NMAC and to ensure compliance with 19.15.36.15.E.(5) NMAC, if required.

Please submit a background sampling plan to OCD under a separate cover, for OCD's consideration of approval to update the existing background data set within 60 days of the date of this letter. Please demonstrate compliance with 19.15.36.15.E.(5) NMAC by initiating the required additional sampling immediately and submitting a response action plan within 60 days of the date of this letter. Also, please submit all future vadose zone monitoring results in quarterly reports to demonstrate compliance to 19.15.36.15.E NMAC and to ensure compliance with 19.15.36.15.E.(5) NMAC, if required. Please submit a closure/post-closure care plan to OCD under a separate cover, for OCD's consideration of approval.

OCD has implemented some new policies for submittal. For future submittals, please include a cover letter from the owner/operator, on the owner's/operator's company letterhead, that recognizes the owner/operator has reviewed the submittal, signed by the owner/operator. Also, please provide an updated facility map, for each individual sampling event, that identifies the individual landfarm cells within the facility boundary and indicate the approximate location within the landfarm cells in which the samples were obtained. If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,

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Brad A. Jones  
Environmental Engineer

BAJ/baj

cc: OCD District III Office, Aztec  
Matt Krakow, Western Logistics, LLC, 111 County Road 4990, Bloomfield, NM 87413

State of New Mexico  
Energy, Minerals and Natural Resources Department

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**Susana Martinez**  
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Cabinet Secretary

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**David R. Catanach, Division Director**  
Oil Conservation Division



May 28, 2015

Kelly Robinson  
Western Refining Southwest, Inc.  
50 County Road 4990  
Bloomfield, New Mexico 87413

**RE: May 2014 Release Response Report Review  
Western Refining Southwest, Inc.  
Bisti Landfarm  
Permit NM2-010  
Location: Unit F of Section 16, Township 25 North, Range 12 West, NMPM  
San Juan County, New Mexico**

The Oil Conservation Division (OCD) has completed the review of Western Refining Southwest, Inc.'s (Western) Response to OCD Review of the 2012 Monitoring Reports, dated May 16, 2014, and the May 2014 Release Response Report. OCD appreciates Western's efforts to implement changes to your monitoring protocols to comply with the requests in OCD's 2012 Monitoring Reports Review, dated April 8, 2014. OCD also appreciates the submittal of the release response report, promised in the 2010 Annual Monitoring Report, dated June 3, 2010. The review of the May 2014 Release Response Report has resulted in the discovery of some issues that must be addressed in order for Western to remain compliant with Permit NM2-010 and 19.15.36 NMAC.

OCD review has determined that there seems to be some confusion on Western's behalf when discussing the release response results. In Section 2.0, *Vadose Zone Soil Sampling Results*, of the Release Response Report, the discussion of the analytical data compares the results to "the respective laboratory detection limit." Task 3 of the OCD approved Release Response Plan, cover letter dated January 4, 2010, states "Results will be compared with the higher of the Practical Quantitative Limit (PQL) and the background soils concentration to determine downward migration has occurred." Section 2.0 did not provide the required and approved assessment.

The first paragraph of Section 3.0, *Conclusions*, states "Western identified chloride concentrations above the 1998 baseline concentrations at two locations within the Crude Cell and at four locations within the API Cell. However, there are only two locations where the detected concentrations are above the 1,000 mg/kg screening level for [treatment zone closure]." OCD wishes to clarify that the treatment zone are the soils to be remediated and the vadose zone are the native soils beneath the treatment zone. The release response plan was approved to reassess

the vadose zone to determine if a release has occurred, due to reported detections. Pursuant to 19.15.36.15.E NMAC, the operator is required to compare the vadose results "to the higher of the PQL or the background soil concentrations to determine whether a release has occurred." The treatment zone (soils to be remediated) closure performance standards of 19.15.36.15.F NMAC are not applicable to the native soils (vadose zone) beneath the soils to be remediated.

The second paragraph of Section 3.0, *Conclusions*, states "Additionally, only one sample detected concentrations above the respective laboratory reporting limits for TPH-DRO. However the detected concentration was below the 1998 baseline sample results. All other samples did not contain concentrations above the laboratory reporting limits." Task 3 of the OCD approved Release Response Plan, cover letter dated January 4, 2010, states "Results will be compared with the higher of the Practical Quantitative Limit (PQL) and the background soils concentration to determine downward migration has occurred." The comparison to "the respective laboratory detection limit" is not the assessment Western proposed or OCD approved.

In OCD February 1, 2010 approval of Western's Release Response Plan, cover letter dated January 4, 2010, specified two conditions. The first conditions stated "Western shall verify and confirm previous vadose sampling results by testing the vadose zone of the active cells for TPH, BTEX and chlorides using EPA methods 8015M, 8021B, and 300.1, respectively." The second condition specified "If the verification sampling results demonstrate the presence of contaminants in the vadose zone, Western shall submit a revised release response plan that proposes a defined protocol for delineating the extent of the contamination in compliance with the testing protocols and parameters of Paragraph (5) of Subsection E of 19.15.36.15 NMAC for OCD review and consideration of approval." The second condition has not been pursued or recognized by Western in any of the follow up correspondence with OCD.

In order for Western to proceed, certain issues regarding the facility background need to be resolved. Currently, Western does not have the complete background data to perform the vadose zone assessment as required by Part 36. The April 1998 background data set provides results for the following 21 analytes: potassium, selenium, silver, sodium, sulfate, chloride, carbonates, bicarbonates, arsenic, barium, cadmium, calcium, chromium, lead, magnesium, mercury, diesel range organics (DRO), benzene, toluene, ethyl benzene, and total xylene. To complete the release response initial assessment, background needs to be established for TPH. Part 36 specifies EPA Method 418.1 as the required vadose zone analyses for TPH. OCD is willing to accept an equivalent method to EPA Method 418.1 that is capable of demonstrating a carbon range from C<sub>6</sub> to C<sub>36</sub> (e.g. Method 8015 for GRO/DRO/MRO or ORO). To finish the 2012 five year vadose zone assessment, background needs to be established for copper, iron, manganese, and zinc. If follow up and/or future quarterly vadose zone monitoring demonstrate exceedances, then the additional analysis will be needed to complete the comparison to the 46 analytes required by 19.15.36.15.E NMAC. Please submit a background sampling plan to OCD under a separate cover, for OCD's consideration of approval to update the existing background data set and complete the release response and five year vadose zone assessments.

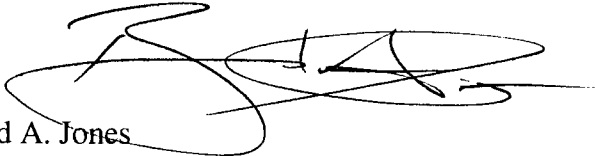
Please submit a background sampling plan to OCD under a separate cover, for OCD's consideration of approval to update the existing background data set and complete the release response and five year vadose zone assessments within 60 days of the date of this letter. Please submit a revised version of the Release Response Plan that provides an appropriate discussion of the vadose zone results and a comparison to the updated facility background, within 90 days of

Ms. Robinson  
Permit NM2-010  
May 28, 2015  
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the date of this letter. Please submit an amendment for the 2012 five vadose zone assessment that includes a comparison of the laboratory results required for the five year demonstration to the updated facility background within 90 days of the date of this letter. Since the laboratory results confirm chloride contamination within the vadose zone, please pursue and initiate the action specified in the second condition of OCD's approval, dated February 1, 2010, of the 2010 release response plan.

OCD has implemented some new policies for submittal. For future submittals, please include a cover letter from the owner/operator, on the owner's/operator's company letterhead, that recognizes the owner/operator has reviewed the submittal, signed by the owner/operator. Also, please provide an updated facility map, for each individual sampling event, that identifies the individual landfarm cells within the facility boundary and indicate the approximate location within the landfarm cells in which the samples were obtained. If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,

A handwritten signature in black ink, appearing to read 'Brad A. Jones', with a large, stylized flourish extending from the end of the signature.

Brad A. Jones  
Environmental Engineer

BAJ/baj

cc: OCD District III Office, Aztec



State of New Mexico  
Energy, Minerals and Natural Resources Department

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**Susana Martinez**  
Governor

**David Martin**  
Cabinet Secretary

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**Jami Bailey, Division Director**  
Oil Conservation Division



April 8, 2014

Kelly Robinson  
Western Refining Southwest, Inc.  
50 County Road 4990  
Bloomfield, New Mexico 87413

**RE: 2012 Monitoring Reports Review  
Western Refining Southwest, Inc.  
Bisti Landfarm  
Permit NM2-010  
Location: Unit F of Section 16, Township 25 North, Range 12 West, NMPM  
San Juan County, New Mexico**

Dear Ms. Robinson:

The Oil Conservation Division (OCD) has completed the review of Western Refining Southwest, Inc.'s (Western) 2012 Monitoring Report. The vadose zone results demonstrate that a release has occurred and the operator has not followed up with OCD regarding the response action plan. The five year vadose sampling event demonstrated that additional laboratory analysis was performed that was not required by regulation. Also, the incorrect test method for TPH was utilized and demonstrated in regards to vadose zone monitoring.

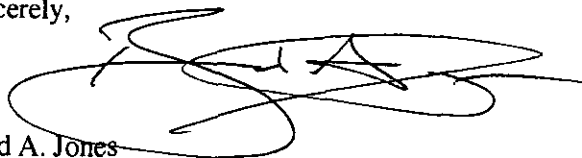
Pursuant to Paragraph (5) of 19.15.36.15.E NMAC, "If vadose zone sampling results show that the concentrations of TPH, BTEX or chlorides exceed the higher of the POL or the background soil concentrations, then the operator shall notify the division's environmental bureau of the exceedance, and shall immediately collect and analyze a minimum of four randomly selected, independent samples for TPH, BTEX, chlorides and the constituents listed in Subsections A and B of 20.6.2.3103 NMAC. The operator shall submit the results of the re-sampling event and a response action plan for the division's approval within 45 days of the initial notification." The response action plan shall address changes in the landfarm's operation to prevent further contamination and, if necessary, a plan for remediating existing contamination." In February 2010, OCD approved an initial response action plan to delineate the extent of the vadose zone contamination. OCD was notified in the 2010 Annual Sampling Report, dated June 3, 2010, that OCD would be contacted by Western within a week of the submittal to schedule a meeting to discuss the results. The written response also stated "Results are being evaluated in a written report to be submitted to NMOC, and a proposal for remedial action is forthcoming." OCD never received the follow up submittal nor was OCD contacted by Western to schedule a meeting. The responsibility of compliance for the existing surface waste management facility permit is that of the owner/operator by following up on outstanding compliance issues. Please submit the June 6, 2010 assessment and proposal and contact OCD to schedule a meeting to discuss the results and a path forward.

Pursuant to Paragraph (3) of 19.15.36.15.E NMAC, "The operator shall collect and analyze a minimum of four randomly selected, independent samples from the vadose zone, using the methods specified below for the constituents listed in Subsections A and B of 20.6.2.3103 NMAC at least every five years and shall compare each result to the higher of the PQL or the background soil concentrations to determine whether a release has occurred." The laboratory results submitted in the monitoring report demonstrated that analysis was performed for all the constituents listed in Subsections A and B of 20.6.2.3103 NMAC. As underlined in the above reference of Paragraph (1) of 19.15.36.15.E NMAC, the "methods specified below for the constituents listed in Subsections A and B of 20.6.2.3103 NMAC" are those identified in Subsection F of 19.15.36.15 NMAC: such as "determined by EPA SW-846 methods 6010B or 6020 or other EPA method approved by the division..." Please submit all future five year vadose zone sampling results demonstrating compliance of Paragraph (3) of 19.15.36.15.E NMAC by EPA SW-846 methods 6010B or 6020.

In regards to utilizing the proper TPH test method for vadose zone monitoring, in accordance with Paragraph (2) of 19.15.36.15.E NMAC the operator shall analyze the samples from the vadose zone "using the methods specified below for TPH, BTEX and chlorides and shall compare each result to the higher of the PQL or the background soil concentrations to determine whether a release has occurred." The "methods specified below for TPH, BTEX and chlorides" are those identified in Subsection F of 19.15.36.15 NMAC: such as "TPH, as determined by EPA method 418.1 or other EPA method approved by the division..." Pursuant to the Transitional Provisions of Subsection A of 19.15.36.20.NMAC, "Existing surface waste management facilities shall comply with the operational, waste acceptance and closure requirements provided in 19.15.36 NMAC, except as otherwise specifically provided in the applicable permit or order, or in a specific waiver, exception or agreement that the division has granted in writing to the particular surface waste management facility." The most common vadose zone monitoring (commonly referred to, but incorrectly as "Treatment Zone Monitoring" within existing landfarm permits) condition in an existing landfarm permit is as follows: "The soil samples must be analyzed using EPA-approved methods for total petroleum hydrocarbons (TPH) and volatile aromatic organics (BTEX) quarterly and for major cations/anions and Water Quality Control Commission (WQCC) metals annually." The permit condition only identified the constituent and does not specify the test method. Part 36 specifies EPA Method 418.1 as the required vadose zone analyses for TPH. Please submit all future vadose zone sampling results demonstrating TPH by EPA Method 418.1.

Please complete the required actions of 19.15.36.15.E NMAC and provide OCD with the additional sampling results and the response action plan within 30 days of receipt of this letter. Also, please submit future vadose zone sampling results demonstrating TPH by EPA Method 418.1 and compliance to Paragraph (3) of 19.15.36.15.E NMAC by EPA SW-846 methods 6010B or 6020. If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,



Brad A. Jones  
Environmental Engineer

BAJ/baj

cc: OCD District III Office, Aztec  
LT Environmental, Inc., 2243 Main Avenue, Suite 3, Durango, CO 81301