

AUG 7 2013**NMED
Hazardous Waste Bureau**

August 5, 2013

Via Email and Certified Mail 7010 1670 0001 3141 0286, Return Receipt Requested

Mr. John E. Kieling
Chief, Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 2
Santa Fe, NM 87505-6303

**Re: API Separator Leak Detection Units
Western Refining Company Southwest, Inc. ("Western")
Gallup Refinery
EPA ID #NMD000333211**

Dear Mr. Kieling:

On July 8, 2013, you sent a letter to Western's Gallup Refinery on behalf of the Hazardous Waste Bureau ("Bureau") requesting certain information about the new API Separator ("NAPIS") and its designated leak detection units ("LDUs"). The purpose of this letter is to respond within the time limitation you stated.

As a threshold matter, we would like to provide some clarification to the description of the LDU's in the letter. In 2007, 316 stainless steel liner inserts were installed inside both concrete bays in the NAPIS. Prior to the installation of the 316 stainless steel liners, the internal concrete cracks and joints were filled with epoxy grout and the internal concrete walls were sealed with an impermeable flexible coating system, Pelseal (fluoroelastomer). After internal repairs were made and the coating system applied, the concrete bays now serve as secondary containment. Leak detection system units were installed at this time between the stainless steel liners and the coated internal concrete bays. There is a leak detection system unit on the West Bay (West LDU), East Bay (East LDU) and on the oil sump (Oil Sump LDU).

To respond to your inquiries for information, we have broken down our responses to the following specific requests:

- (i) a proposed approach to determine the source of fluid in the LDUs;

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- (ii) a proposed approach to evaluate for releases to surrounding soils and groundwater;
- (iii) a proposed remedy to eliminate any possible leakage;
- (iv) a discussion of whether or not there is an inspection schedule for the NAPIS to check the liner;
- (v) as-built drawings of the NAPIS showing the LDUs;
- (vi) a description of the LDUs;
- (vii) a description of the methods used to collect fluid samples;
- (viii) identification of when water was first detected in the LDUs;
- (ix) a discussion of whether fluid present in the LDUs has ever been removed; and
- (x) a discussion of any measures to determine the source of the leaks.

We will address each request in the order set forth above.

(i) Western has taken the following steps to investigate the source of and reasons for fluid in the LDUs.

1. Western recommenced weekly inspections during which we take depth to water measurements and schedule LDUs to be pumped as necessary.
2. Western pumped out all LDUs and dropped directly inside the East Bay a timed release wax dye cone to determine if the fluorescent dye is picked up in the LDUs.
3. Fluorescent dye was also added to the process sewer sewer box upstream of the NAPIS as a secondary test.
4. The west bay of the NAPIS is currently shut down for mechanical repairs. During this time the west bay will be completely drained and the internal stainless steel liner will be inspected for leaks or signs of any maintenance requirements.

At this time, we have not completed our evaluation steps and have not yet drawn a conclusion about the source of and reasons for fluid in the LDUs. We plan to continue with additional dye testing and will be evaluating the results.

(ii) Western has engaged in the following activities relating to evaluation of whether there are releases from the NAPIS to the environment. Western installed six monitoring wells around the new API at the direction of NMED in 2007 and 2008, four of which continue to be monitored routinely in accordance with the Facility Wide Ground Water Monitoring Plan approved in August of 2010. The LDUs were added to the Ground Water Sampling event beginning in 2010 as part of the Facility Wide Ground Water Monitoring Plan. The four ground water monitoring wells located around the NAPIS unit monitor for the presence of contaminants in the ground water from possible leaks from the NAPIS unit.

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Western is not proposing to conduct sampling of soils surrounding the NAPIS at this time. As discussed below, Western has noted minor staining of soils immediately adjacent to the new API; however, until the evaluation of potential on-going leaks is completed we do not believe that sampling of soils is beneficial.

Based on the analytical results, only NAPIS-2 monitoring well indicates detection levels greater than the applicable standards for BTEX and MTBE constituents. It is our conclusion based on well depth, depth to water, analytical results and quarterly monitoring that the fluids detected in the leak detection units are not a source of contamination for ground water. Comparisons of the monitoring wells NAPIS-1 (located up-gradient/east side), NAPIS-2 (down-gradient/west side) and the East and West LDUs which are located between these two monitoring wells indicate that the up-gradient well NAPIS-1 is free of hydrocarbons. Analytical results for the contaminants detected in NAPIS-2 do not indicate an increase in concentration levels that would be expected if the NAPIS was leaking into the ground water. BTEX concentration levels in the LDUs are at least 100 times more than the levels found in the down-gradient monitoring wells, namely NAPIS-2. Quarterly depth to water measurements in all four monitoring wells remained constant however the liquid levels in the "stand-pipe" of the LDUs fluctuated considerably. The water table in this area is approximately 9 -10 feet below the ground surface. NAPIS- 1 total depth is 13.53 feet and NAPIS-2 total depth is 13.61 feet, and the East LDU and West LDU are approximately 8 to 9 feet below ground surface.

(iii) Western is still in the process of evaluating the source of potential leaks to the LDUs as described in (i) above. At this time, there is no indication of releases from the NAPIS to groundwater. We have observed minor historical staining in small areas where there is some seepage from cracks in the concrete exterior. Western's focus at this time is to identify the source of leaks into the LDUs and then develop and implement a remedy for those leaks.

(iv) The LDUs are sampled and inspected on a quarterly basis for 8021B plus MTBE, 8015B and WQCC Metals. The stainless steel liners inside the bays of the NAPIS can only be visually inspected by taking the NAPIS unit out of service. The concrete wall exterior of the NAPIS is visually inspected on a daily basis during the operators' rounds.

(v) By April 25, 2013 email, Kristin Van Horn of the Bureau requested a figure showing the location of the NAPIS LDUs. Western, provided drawings of the NAPIS showing the LDUs by April 26, 2013 email. For your convenience, we have attached those drawings to this letter. We do not have an "as built" drawing for the NAPIS showing the LDUs.

(vi) The LDUs are identified as East LDU, West LDU, and Oil Sump LDU.

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The East LDU is located on the southeast corner of the East Bay. Pipe material is 304 stainless steel and cap is 4 inch schedule 80 PVC slip on. The diameter of the pipe is 4 inch and total depth (from top to bottom) is 11.82 feet. Ground level elevation to the top of the pipe is 2.86 feet with 8.96 feet below ground surface.

The West LDU is located on the southwest corner of the West Bay. Pipe material is 304 stainless steel and cap is 4 inch schedule 80 PVC slip on. The diameter of pipe is 4 inch and total depth (from top to bottom) is 12.77 feet. Ground level elevation to the top of the pipe is 4.49 feet with 8.28 feet below ground surface.

The Oil Sump LDU is located on the northeast corner of the west bay. Pipe material is 304 stainless steel and cap is 4 inch schedule 80 PVC slip on. The diameter of pipe is 4 inch and total depth (from top to bottom) is 7.25 feet. Ground level elevation to the top of the pipe is 3.29 feet with 2.67 feet below ground surface.

The bottom of the NAPIS is approximately 8 feet (on the north side) to 11 feet (south side) below ground surface.

(vii) Each LDU is gauged for a depth to water (DTW) measurement to determine the water level inside the standpipe. If a water level is detected, a grab sample is collected using a new disposable polyethylene bailer. The bailer is lowered slowly inside the standpipe until a sufficient amount of liquid is retained inside the bailer for sample collection. Samples are collected in appropriate containers selected for the specific analysis requested. Samples are labeled and a custody seal applied to each container. LDUs not sampled due to an insufficient water level or found dry, are recorded in a field log specific to each unit. All samples collected are recorded in a field report or field log. Chain of Custody (COC) forms are completed at the end of each sampling day, prior to the transfer of samples off site, and accompany the samples during shipment to the laboratory. A custody seal is affixed to the lid of the shipping container. Copies of all COC forms generated are kept on site. All remaining purged water inside the bailer is placed inside a 5 gallon bucket and drained into the refinery waste water treatment system upstream of the API separator.

(viii) The West LDU has been in operation since 2004 and fluid has been detected since 2004 to present day. In 2007 when the stainless steel liners were installed inside the East Bay and West Bay, the original LDU on the West Bay was modified with a new standpipe and higher stick-up length. The East LDU and Oil Sump LDU were installed at that time as well. Inspection records indicate that fluid was first recorded in the Oil Sump LDU on June 26, 2009 and in the East LDU on December 9, 2008.

(ix) Since October 1, 2004, the West LDU has been inspected for fluids. If fluid is observed, a depth to water measurement is taken and recorded. A Work Request ticket is written for the maintenance department to use on-site vacuum truck to pump out fluid

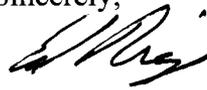
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from the standpipe. West LDU was inspected on a bi-weekly basis from October 1, 2004 through December 16, 2004. From 2005 through 2007, inspections were done monthly which included pumping of the LDU if necessary. Inspections continued from 2009 through 2012 where fluid was first detected in the East LDU in 2008 and in the Oil Sump LDU in January of 2009 at which time fluids were removed from all LDUs. All three LDUs have been put back on a weekly inspection schedule and if fluids are detected at a sufficient level it is removed via a vacuum truck.

(x) Please see the responses to (i) and (ii) above.

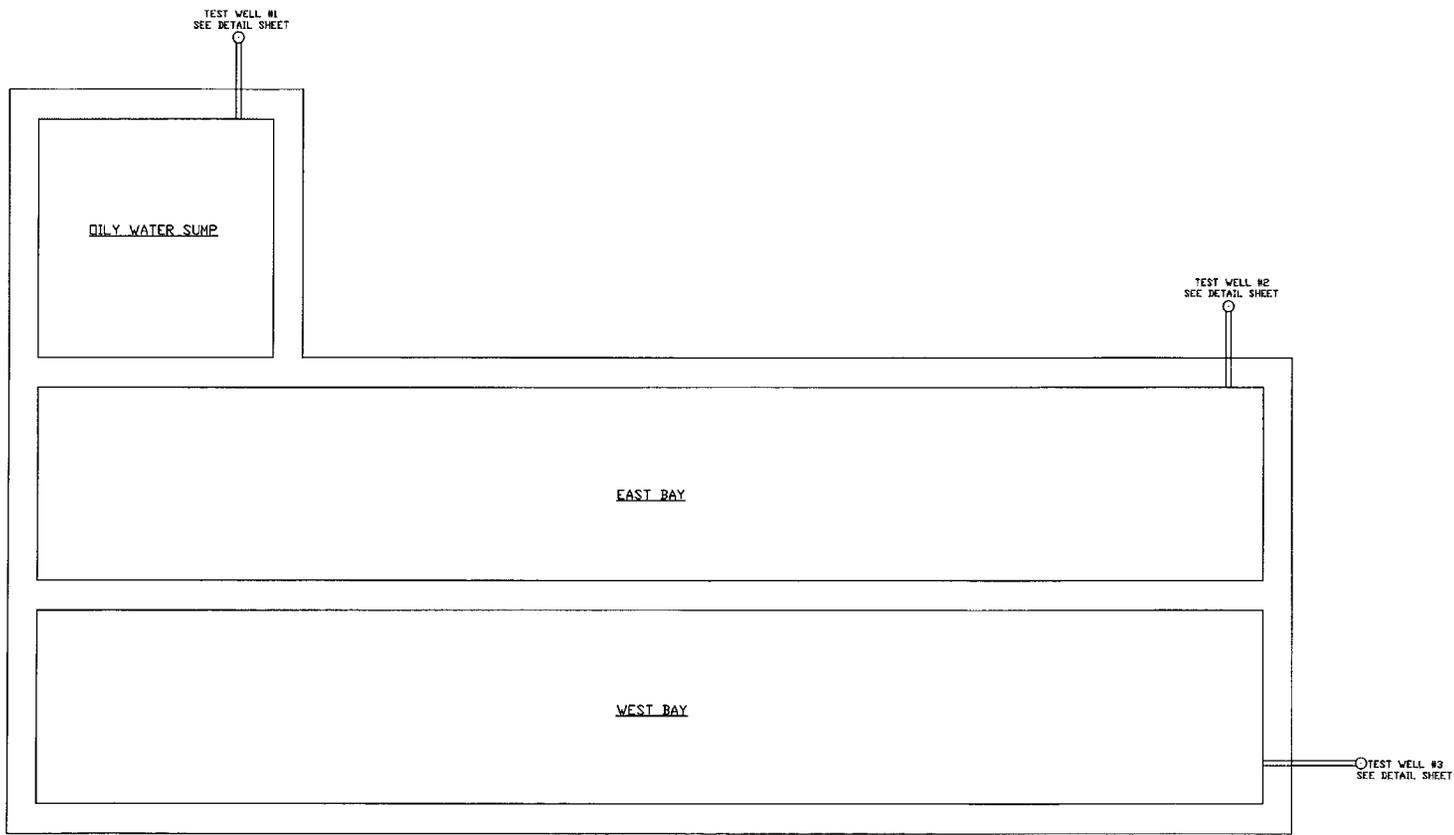
Please note Western reserves all applicable rights and defenses relevant to this matter, including supplementation or modification of the preceding information as appropriate. If you have any questions, please contact me. In addition, we stand ready to meet with you and your staff should the Bureau have any concerns regarding the preceding response.

Sincerely,



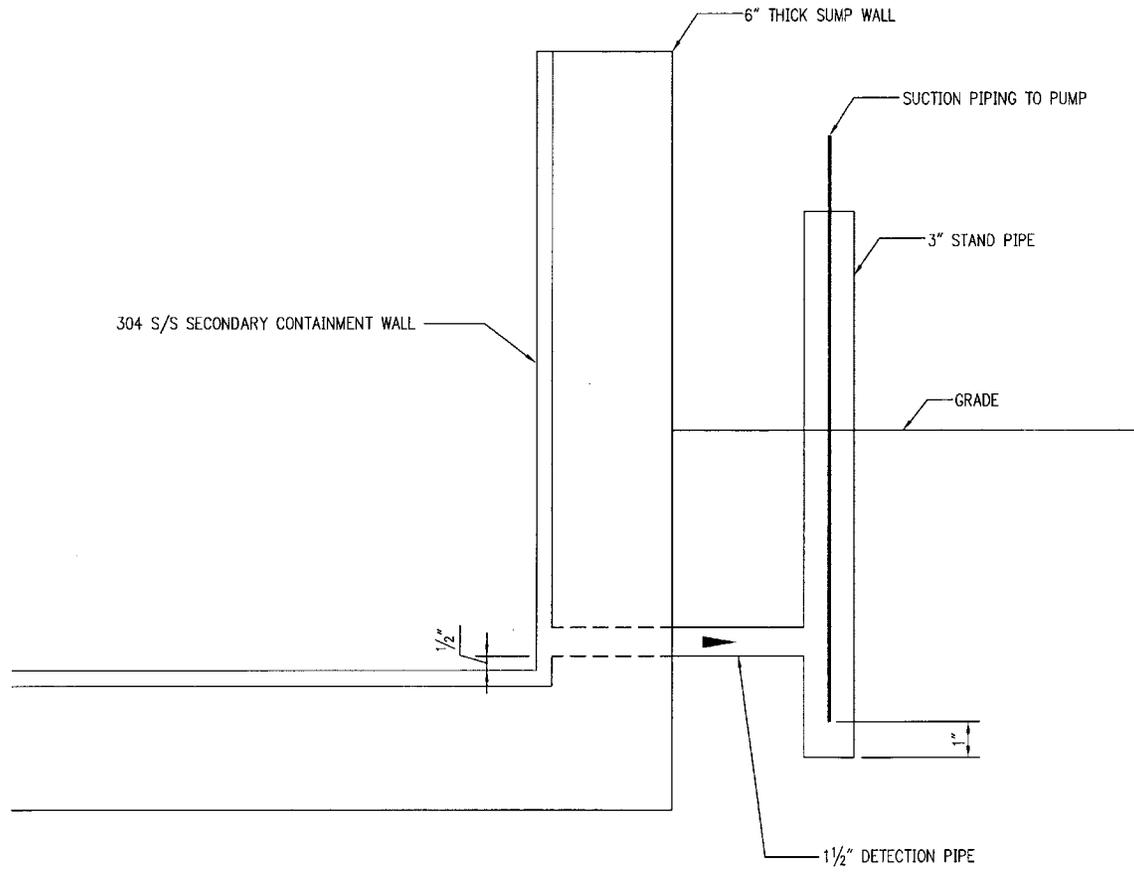
Ed Riege
Environmental Manager

cc: T. Blaine, P.E., NMED HWB
D. Cobrain, NMED HWB
N. Dhawan, NMED HWB
A. Allen, WRG
A. Haines, WRG
C. Chavez, OCD
G. von Gonten, OCD



TEST WELL LOCATION PLAN

 Western Refining Gallup Refinery			
API SEPERATOR & OW SYSTEM API WATER PUMP-OUT TEST WELLS			
REF. No:		INSP/RT/UT:	
DRN. BY: LJB	DATE: 4/26/13	WELD SPEC:	
CHK'D. BY:	DATE:	PAINT:	
APP'D. BY:	DATE:	CAD REF:	
DRAWING NO. Z84-2/24/13		SHEET	REV 0



Western Refining
Gallup Refinery

API SEPERATOR & OW SYSTEM
API WATER PUMP-OUT
TEST WELL DETAIL

RFE No:	INSP /RT/ AJ:
DRN. BY: LJB	DATE: 4/26/13
CHK'D. BY:	DATE:
APP'D. BY:	DATE:
DRAWING NO.	CAD REF:

TEST WELL

SHEET	REV
1	0