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ENTERED



DAVE MARTIN
Secretary

BUTCH TONGATE
Acting Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

August 22, 2011

Mr. Ed Riege
Environmental Superintendent
Western Refining, Southwest Inc., Gallup Refinery
Route 3, Box 7
Gallup, New Mexico 87301

**RE: NOTICE OF DISAPPROVAL
REQUIREMENT TO RESURVEY GROUNDWATER MONITORING WELLS
AND RECOVERY WELLS
WESTERN REFINING COMPANY, SOUTHWEST, INC., GALLUP REFINERY
EPA ID # NMD000333211
HWB-WRG-11-003**

Dear Mr. Riege:

The New Mexico Environment Department (NMED) has received Western Refining Company, Southwest Inc., Gallup Refinery's (Western) *Requirement to Resurvey Ground Water Monitoring Wells and Recovery Wells* (Report), dated August 1, 2011. NMED has reviewed the Report and hereby issues this Notice of Disapproval (NOD) with the following comments.

Comment 1

NMED's June 6, 2011 letter required Western to provide a work plan to describe the proposed methods for resurveying all of the wells at the facility. Instead, Western submitted a survey report from DePauli Engineering & Surveying, LLC (DES) and a revised Well Data Summary Table. The Report did not include a description of the methods used for surveying the wells or the specific survey points at the wells surveyed. In addition, Western did not complete the work required by NMED because an instrument was not available to measure the total well depth of each well and four of the 40 monitoring wells were not surveyed. Revise the Report to describe

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the specific work performed during the surveying event to include the survey method, the survey point locations for each well, and a complete table with the total well depth measurement for each well. Also include survey data for the four unsurveyed wells (*see* Comment 3). If NMED determines that the appropriate information was not collected, the Permittee must submit a work plan to NMED in order to resurvey the wells and must not proceed with the survey until NMED has approved the plan.

Comment 2

The Report's cover letter states "[t]he horizontal and vertical positions of the top of the PVC casing (unless otherwise noted) and the vertical position for the lid, ground elevation inside the steel casing, and the surrounding ground elevations is shown on the attached pages. The horizontal positions are NAD 83 datum and the vertical positions are NGVD 1929." The survey point locations are only provided for BW-1B, GWM-3, OW-1, and RW-5. There is no indication of where the measurements were obtained from for the other wells. Provide the survey point locations for all of the wells (e.g., directional location or highest/lowest point on PVC casing, top of steel lid, and ground elevation at northwest corner of the concrete pad) in the revised Report.

Comment 3

The Report's invoice page is for 36 monitoring wells; however, there are 40 monitoring wells at the Facility. NMED used the Facility-wide Groundwater Monitoring Plan, dated June 2010 (FWGWMP) and OCD's Discharge Permit (GW-032) to generate NMED's Table 1.0 (List of Groundwater Monitoring Wells to be Resurveyed). Well MW-2 was not listed in the FWGWMP or the Discharge Permit; however, the well was surveyed with NMED's list of wells provided in Table 1.0. Wells PW-2, PW-3, PW-4, and SMW-1 were not surveyed. Explain why these four wells were not surveyed. If these wells are no longer in use, note as such on the Table.

Comment 4

The table titled *Well Data 2009 Summary Table, 2009 Annual Groundwater Discharge Report* provides a note that the wells were "[s]urveyed by DePauli Engineering & Surveying, LLC on June 27, 2011 at [the] request of NMED due to discrepancies on well casing and ground level elevations." NMED's June 2, 2011 letter required the Permittee to resurvey all the wells listed on Table 1.0 and generate a table with the following information:

- a. Verify the well casing diameter;
- b. Total well depth;
- c. Ground level elevation;

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- d. Well casing rim elevation;
- e. Well stick-up length (above or below ground surface).

Water level measurements and separate phase hydrocarbon (SPH) measurements were not required with the submittal and do not provide information about the well construction. Revise the table to include the previously reported elevations in comparison to the newly surveyed elevations (see attached example Table 1.1: 2011 Corrected Well Elevation Summary). In addition, information provided in the Notes section of the table must be completed if the Permittee used the survey points in the same locations for each well (e.g., highest point on top of casing, north side of the PVC casing).

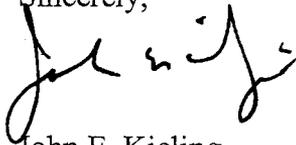
Comment 5

If groundwater elevations changed as a result of resurveying the wells, revise all groundwater elevation maps accordingly for all future submittals.

The Permittee must submit a revised Report with the required information for all the groundwater monitoring wells and recovery wells no later than **December 30, 2011**. If the required information is not available, all of the wells must be resurveyed and a Work Plan must be submitted to NMED by **October 7, 2011** and the Permittee must receive NMED approval prior to completing the surveying activities.

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

Sincerely,



John E. Kieling
Acting Chief
Hazardous Waste Bureau

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cc: D. Cobrain, NMED HWB
K. Van Horn, NMED HWB
L. Tsinnajinnie, NMED HWB
C. Chavez, OCD
T. Larson, Western Refining Company, Gallup Refinery
C. Johnson, Western Refining Company, Gallup Refinery
A. Haines, Western Refining Company, El Paso, Texas

File: Reading File and WRG 2011 File
HWB-WRG-11-003

Att.: Table 1.1 (2011 Corrected Well Elevation Summary)

Table 1.1: 2011 Corrected Well Elevation Summary - Example Table

Date of Installation	Well ID Number	Previous Casing Diameter (in.)	2011 Verified Casing Diameter (in.)	Previous Ground Level Elevation (ft)	2011 Survey Ground Level Elevation (ft) ^{1,2}	Previous Well Casing Rim Elevation (ft)	2011 Survey Well Casing Rim Elevation (ft) ³	Measuring Point Description	Ground Elevation Inside Steel Sleeve (ft) ⁴	Previous Stick-up Length (ft)	2011 Survey Stick-up Length (ft) ⁵	Previous Well Casing Bottom Elevation (ft)	2011 Survey Well Casing Bottom Elevation (ft) ⁶	Previous Total Well Depth (ft)	2011 Survey Total Well Depth (ft)	Screened Interval Depth (ft)
11/10/2003	BW-1A	2.0	2.0	6,876.73	6,874.10	6,876.73	6,876.68	e.g. Highest point on N part of casing	6,872.30	4.38	4.38	6,876.73	6,836.20	40.00	37.90	30-35
10/28/2003	BW-1B	2.0	2.0	6,876.91	6,874.13	6,876.91	6,876.94		6,876.26	2.39	0.68	6,811.71	6,806.42	67.55	67.71	54.6-64.6
11/10/2003	BW-1C	2.0	2.0	6,876.75	6,873.95	6,876.75	6,876.78		6,872.28	4.52	4.50	6,719.75	6,719.75	157.00	154.20	125-135
11/10/2003	BW-2A	2.0	2.0	6,874.72	6,871.88	6,874.72	6,874.69		6,870.45	4.27	4.24	6,809.22	6,809.22	65.50	62.66	55-65
10/28/2003	BW-2B	2.0	2.0	6,874.58	6,871.66	6,874.58	6,874.50		6,870.06	4.50	4.44	6,784.08	6,784.08	90.50	87.58	80-90
10/28/2003	BW-2C	2.0	2.0	6,875.40	6,872.90	6,875.40	6,875.30		6,872.02	2.98	3.28	6,724.40	6,724.40	151.00	148.50	139.5-149.5
6/15/2004	BW-3A	2.0	2.0	6,878.20	6,875.94	6,878.20	6,878.39		6,875.08	3.00	3.31	6,828.22	6,823.32	52.60	52.62	39.5-49.5
10/15/2003	BW-3B	2.0	2.0	6,878.79	6,876.16	6,878.79	6,878.59		6,875.41	3.15	3.18	6,803.79	6,812.57	75.00	63.59	63-73
7/20/2004	BW-3C	2.0	2.0	6,878.08	6,875.72	6,878.08	6,877.95		6,875.27	2.69	2.68	6,723.08	6,723.08	155.00	152.64	144.5-154.5

NOTES:

in. = inch
ft = feet

- (1) Surveyed by DePauli Engineering & Surveying, LLC on June 27, 2011 at request of NMED due to discrepancies with previous elevations of well casing and ground level elevations.
- (2) Corrected Well Casing Rim Elevation: Measurement taken _____.
- (3) Corrected Stick-up Length: Measurement taken (or calculated by) _____.
- (4) Well Casing Bottom Elevation: Measurement taken _____.
- (5) Total Well Depth: Measurement taken _____.
- (6) Screened Interval Depth: Top of the screen to the bottom of screen