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JUL 28 2011

LES-11-00105-NMED

Mr. Clint Marshall
New Mexico Environment Department
Groundwater Quality Bureau
Harold Runnels Building, Room N2250
1190 Saint Francis Drive
Santa Fe, NM 87502

Louisiana Energy Services, LLC
NRC Docket No. 70-3103

Subject: Discharge Permit (DP-1481) 2nd Quarter 2011 Report

Pursuant to Condition 36 of the Louisiana Energy Services, LLC (LES) Discharge Permit (DP-1481), URENCO USA (UUSA) herewith submits the subject quarterly report which summarizes activities, sampling, and analysis of discharges from the UUSA Facility (see Enclosure/CD).

Should you have any questions concerning this submittal, please contact Jenise Dahlin, UUSA Health, Safety and Environment Manager, at 575.394.6561.

Sincerely,

David E. Sexton
Chief Nuclear Officer and Vice President of Operations

Enclosure: Discharge Permit (DP-1481) 2nd Quarter 2011 Report (on CD)

C001
NM5501

Received from RGN II on 11/1/11

Rec'd w/o CD and incomplete Rept

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REPORT ON
NEW MEXICO ENVIRONMENT DEPARTMENT
DISCHARGE PERMIT DP-1481
QUARTERLY REPORT
QUARTER 2, 2011

by

Haley & Aldrich, Inc.
Tucson, Arizona

for

URENCO USA
Lea County, New Mexico

File No. 37262-015
July 2011

HALEY
ALDRICH

EXECUTIVE SUMMARY

This report summarizes activities, sampling, and analysis of discharges from the URENCO USA facility in Lea County, New Mexico (Figures 1 and 2), permitted under New Mexico Environment Department (NMED) Discharge Permit DP-1481 for the period beginning April 1, 2011 and ending June 30, 2011 (New Mexico Environment Department, 2007, 2008, 2011).

Results of the monitoring were generally consistent with pre-operational results and did not indicate impacts attributable to facility operations.

The following data were collected during the second quarter 2011 sampling event:

- Measurements were made for groundwater levels in monitoring wells.
- Samples of groundwater, soil, vegetation, and domestic wastewater were collected for laboratory analyses. The analytical results were evaluated with respect to prior data and NMED standards.
- The facility conducted inspections of the ponds and the domestic wastewater lift station, monitored precipitation, and metered discharges to Pond 2.

Monitoring for the quarter yielded the following results:

- Groundwater analytical results were consistent with prior samples. However, the 5.52 pH measurement in MW-05 groundwater was below the WQCC lower limit of 6 pH units, which did not appear to be representative of groundwater conditions at this well.
- Analytical results for Lift Station 1 domestic wastewater, and soil and vegetation samples were consistent with prior data.
- Discharge from Lift Station 4 to Pond 2 totaled 275,498 gallons.
- Basin water samples were not collected because water was not present in Pond 1 and the water in Pond 2 was of insufficient depth for sampling. Basin sediment samples were not collected from Pond 1 or Pond 2 because no new accumulations of sediment were present.
- Groundwater samples were not collected at some permit wells because they were dry. Consistent with past monitoring, and to protect the integrity of the field meters, field parameters were not measured at Lift Station 1. Vegetation was not present for collection at three on-site locations.
- The nitrate result for Lift Station 1 wastewater was rejected due to holding time violation.

Results of the monitoring were generally consistent with pre-operational results and did not indicate impacts attributable to facility operations. Anomalous results observed during the quarter included the following:

- pH and TDS continued to fluctuate in MW-04 groundwater. TDS exceeded the WQCC groundwater standard during the quarter. TDS and pH have been unstable since the third quarter 2010.

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1. INTRODUCTION

This report summarizes activities, sampling, analysis, and measurement of discharges from the URENCO USA facility in Lea County, New Mexico (Figures 1 and 2), permitted under New Mexico Environment Department (NMED) Discharge Permit DP-1481 for the period beginning April 1, 2011 and ending June 30, 2011 (New Mexico Environment Department, 2007, 2008). On May 18, 2011, NMED approved an amendment to DP-1481, which resulted in changes to authorized discharges and monitoring requirements (New Mexico Environment Department, 2011).

1.1 Monitoring Locations

Groundwater, soil, vegetation, basin sediment, basin water, and untreated domestic wastewater monitoring locations described in the discharge permit include:

- 9 monitoring wells
- 8 soil locations
- 8 vegetation locations
- 2 basins for sediment and water
- 1 lift station

The permit also requires monthly inspections of basins and lift stations, monitoring of precipitation, and monitoring of discharge to the Uranium Byproduct Cylinder Storage Pad Storm Water Retention Basin (UBC Basin, also referred to as Pond 2).

2. DISCHARGE PERMIT MONITORING ACTIVITIES

The following is a brief description of activities related to discharges conducted at the facility during the quarter. A site map with sampling locations is shown in Figure 2. Monitoring was conducted by Haley & Aldrich, Inc. in accordance to safety standards outlined in URENCO USA procedures.

Samples were collected and shipped to GEL Laboratories of Charleston, South Carolina. Quarter 2, 2011 was the second time GEL Laboratories analyzed environmental samples for this project.

2.1 Well Installations / Abandonment

No wells were abandoned and no new monitoring wells were installed at the facility during the second quarter of 2011.

2.2 Precipitation

A meteorological station is maintained at the facility for measuring precipitation and other weather conditions.

2.3 Groundwater Elevation Monitoring

In April 2011, measurements of the depth to groundwater were made in site monitoring wells. If water was present, the depth was measured and recorded to the nearest 0.01 ft, and the water level elevation was calculated.

2.4 Groundwater Quality Monitoring

Monitoring wells MW-04, MW-10, and MW-20 met DP-1481 Condition 17 location requirements, contained sufficient groundwater, and were sampled during the second quarter of 2011 (Figure 2). MW-05 was also sampled during the quarter.

During the second quarter of 2011, monitoring wells were purged and sampled using a low-flow/low-purge methodology. Groundwater parameters (pH, temperature, and conductivity) and the water level were monitored and recorded to determine if stabilization was achieved.

Groundwater samples were collected on April 11 and 12, 2011 and analyzed for parameters listed in Condition 34.I: total kjeldahl nitrogen (TKN), nitrate as nitrogen, isotopic uranium, fluoride, chloride, total dissolved solids (TDS), and sulfate.

One duplicate groundwater sample was collected at MW-04.

2.5 Basin Water Monitoring

Monitoring of basin water in Pond 1 and Pond 2 was scheduled for the second quarter 2011. Per the discharge permit, basin water is scheduled to be measured for field parameters (temperature, pH, and specific conductance) and analyzed for constituents listed in Conditions 34.E: total suspended solids (TSS), 5-day biological oxygen demand (5-day BOD), chemical oxygen demand (COD), total phosphorus, TKN, nitrate as nitrite, sulfate, isotopic uranium, fluoride, chloride, and TDS, comprehensive inorganic suite, oil and grease, and total petroleum hydrocarbons (TPH).

Water was not observed in Pond 1 and the water observed in Pond 2 was of insufficient depth for sampling during the Quarter 2 monitoring event.

Both ponds were inspected monthly as required by permit Condition 12.

2.6 Basin Sediment Monitoring

Monitoring of basin sediment in Pond 1 and Pond 2 was scheduled for the second quarter 2011. Through May 17, 2011, basin sediment is scheduled to be analyzed for analytes listed in discharge permit Conditions 34.B, 34.C, 34.G, and 34.H as follows: isotopic uranium, fluoride, chloride, TDS, comprehensive inorganic suite, pesticides, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), and herbicides.

Following the discharge permit modification dated May 18, 2011, future basin sediment samples are scheduled to be analyzed for analytes listed in discharge permit Conditions 34.B and 34.C as follows: isotopic uranium, fluoride, chloride, TDS, and comprehensive inorganic suite.

Sediment was not sampled because no new accumulations of sediment were present in Ponds 1 and 2 during the quarter (because of the lack of rainfall, noted in section 3.1).

2.7 Domestic Wastewater Monitoring

Samples of domestic wastewater were scheduled at Lift Station 1, which is a central collection point for all domestic waste being discharged off-site to the Eunice Wastewater Treatment Facility.

Samples of domestic wastewater were collected on April 12, 2011 at Lift Station 1 and analyzed for parameters listed in Condition 34.F as follows: TKN, nitrate as nitrogen, isotopic uranium, fluoride, chloride, and TDS.

The domestic wastewater samples were not measured for field parameters. This exception was discussed and agreed to in meetings with a NMED Representative on October 21, 2010 in Santa Fe, New Mexico.

Monthly inspection of Lift Station 1 was performed by URENCO USA (Appendix C).

2.8 Soil Monitoring

Soil samples were collected at eight (8) on-site locations on April 14, 2011 (Figure 2) and analyzed for fluoride. One duplicate soil sample was collected at the Northwest (NW) location. The required semi-annual sampling as specified in Condition 33 was completed in Quarter 1, 2011. These additional samples collected in Quarter 2, 2011 were voluntary.

2.9 Vegetation Monitoring

Vegetation samples were collected at five (5) on-site locations on April 14, 2011 (Figure 2), and analyzed for fluoride as specified in Condition 33. One duplicate vegetation sample was collected at the Northwest (NW) location. Vegetation was not present at three (3) on-site locations: South (S), Southeast (SE), and Southwest (SW).

2.10 Discharge Monitoring

Non-stormwater discharges to Pond 2 during the quarter were metered using a totalizing flow meter after Lift Station 4. Total flow is reported in Section 3.8.

3. MONITORING RESULTS

Sample locations are presented in Table 1 and Figure 2. Sample analyses were conducted by GEL Laboratories of Charleston, South Carolina. Analytical results are included in Tables 2, 3, and 4. Laboratory Data Sheets and Chains of Custody are included in Appendix A. Reports of field and analytical data validation reports are included in Appendix B. Several samples required dilution due to sample matrix interference and high analyte concentration.

3.1 Precipitation

Precipitation for the quarter was zero inches.

3.2 Groundwater Elevation

Depth to groundwater measurements to the nearest 0.01 foot were collected from site monitoring wells containing water and recorded in accordance with permit Condition 21 of DP-1481. Table 5 presents quarterly water level data collected by URENCO USA on April 11, 12, and 14, 2011.

During prior monitoring events when wells were purged a standard three (3) to five (5) well volumes prior to sampling, water levels did not appear to reach static water level conditions by the following quarter due to slow recharge rates at these wells. Beginning in quarter 2, low-flow purging was implemented to allow water levels to return to static conditions and be more representative of site conditions.

Groundwater elevations across the site ranged from approximately 3,202 feet above mean sea level (ft, MSL) at well MW-01 to over 3,338 ft, MSL at MW-10. MW-01 is located in the northwest quadrant of the site. MW-10 is located northeast of MW-01 along the northern site boundary. Five Cooper Canyon Formation and all shallow wells were dry.

Groundwater elevation hydrographs and a potentiometric map of groundwater elevation contours will be presented in the third quarter report due after the third quarter monitoring event.

3.3 Groundwater Quality

Results of the four wells sampled during the quarter did not indicate impacts attributable to facility operations.

Constituent analytical results that exceeded 20.6.2.3103.A, 20.6.2.3103.B, and/or 20.6.2.3103.C New Mexico Administrative Code (NMAC) Water Quality Control Commission (WQCC) groundwater standards are highlighted in bold in Table 2.

Groundwater results for fluoride, chloride, nitrate, TDS, sulfate, and total uranium were consistent with previous results with several naturally occurring compounds exceeding the WQCC standards (i.e., chloride, nitrate, TDS, pH, sulfate, and total uranium). These groundwater samples were:

- MW-04: chloride, nitrate, TDS, sulfate, and total uranium.
- MW-05: chloride, fluoride, pH, sulfate, and TDS.
- MW-10: chloride, sulfate, and TDS.
- MW-20: chloride, sulfate, and TDS.

A pH of 5.52 measured in MW-05 groundwater prior to sampling is below the WQCC lower limit, but does not appear to be representative of groundwater conditions at this well because of the rapid pH change recorded during purging while temperature and specific conductivity remained stable. Confirmation samples will be scheduled for laboratory analysis of pH in the third quarter of 2011 to confirm or deny the quarter 2 pH results.

Total uranium activity in groundwater collected from MW-04 (both primary and duplicate samples) during the quarter exceeded the WQCC groundwater standard of 0.03 milligrams per liter (mg/L). This total uranium activity is not related to site activities since it is consistent with background activities observed in MW-04 samples during the pre-operational phase of the facility. In nine of the past fourteen samples collected from MW-04, including samples collected during the pre-operational phase of the facility, total uranium activity exceeded the WQCC groundwater standard (GLE, 2008, 2009b, 2010, 2011; Haley & Aldrich, 2011).

Isotopic uranium activities were consistent with past sample results.

Results of the monitoring did not indicate impacts attributable to facility operations.

At MW-04, TDS and pH continued to be unstable through the current quarter. Although the 7.51 pH result did not exceed the WQCC groundwater standard in MW-04 during Quarter 2, 2011, it continued to fluctuate compared to prior monitoring. pH measurements of MW-04 groundwater during 2010 through the first quarter 2011 ranged from 7.3 to 11.86. First quarter 2011 pH was measured at 10.90. TDS was high during Quarter 2, 2011 at concentrations of 9,960 mg/L in the primary sample and 10,900 mg/L in the duplicate. TDS had been consistently high with near neutral pH at MW-04 since sampling began in 2008. However, in mid-2010 TDS dropped from 11,600 mg/L to 3,710 mg/L with a corresponding pH increase from 7.3 to 11.86.

As reported in the *Site Hydrogeochemical Setting Report* (GLE, 2009a), wells MW-04, MW-05, MW-10, and MW-20 are screened in the upper portions of the Cooper Canyon Formation. High concentrations of TDS may be attributed to relatively long travel times for groundwater to reach the saturated zones, long residence times, and a low groundwater recharge rate. A potential source of high sulfate concentrations may be the presence of gypsum in the Cooper Canyon Formation. Chloride may have dissolved into groundwater as it slowly percolates through or saturates soil material containing chloride.

3.4 Pond Inspections

Monthly inspections of the ponds did not indicate the need for corrective action.

3.5 Domestic Wastewater

There were no anomalous results for this quarter.

TKN, chloride, fluoride, TDS, and isotopic uranium were present in domestic wastewater at concentrations listed in Table 3. TKN, chloride, and TDS were consistent with expectations because these samples contained untreated human waste and were also consistent with previous samples taken from this location. The nitrate result was rejected due to a laboratory holding time violation (Appendix B). Isotopic uranium results were consistent with prior results and activities observed in the site municipal water supply.

3.6 Soil

Analytical results for soil samples are presented in Table 4. Results for fluoride were consistent with past sampling results.

3.7 Vegetation

Analytical results for vegetation are presented in Table 4. Results for fluoride were consistent with past sampling.

3.8 Discharge Monitoring

From April 20 through June 30, 2011, the discharge volume from Lift Station 4 to Pond 2 totaled 275,498 gallons.

3.9 Discussion of Elevated Constituents in Sample Media

URENCO USA will continue to track analytical results of sample media that display elevated concentrations of potential pollutants. Trend analysis of analytes in groundwater and vegetation will be included in subsequent monitoring reports as well as the DP-1481 third quarter 2011 report.

4. CONCLUSIONS

Results of the monitoring did not indicate impacts attributable to facility operations.

Anomalous results observed during the quarter included pH values and TDS concentrations which continued to fluctuate in MW-04 groundwater. TDS exceeded the WQCC groundwater standard during the quarter.

REFERENCES

1. GL Environmental, Inc., 2008. *New Mexico Environment Department Discharge Permit DP-1481 Pre-Operational Quarterly Report / Annual Report, Quarter 3 – 2008.* 31 October 2008.

2. ------, 2009a. *National Enrichment Facility Site Hydrogeochemical Setting Report, New Mexico Environment Department Discharge Permit DP-1481.* 23 March 2009.

3. ------, 2009b. *New Mexico Environment Department Discharge Permit DP-1481 Quarterly Report / Annual Report, Quarter 3 – 2009.* 31 October 2009.

4. ------, 2010. *New Mexico Environment Department Discharge Permit DP-1481 Quarterly Report / Annual Report, Quarter 3 – 2010.* 31 October 2010.

5. ------, 2011. *New Mexico Environment Department Discharge Permit DP-1481 Quarterly Report, Quarter 4 – 2010.* January 2011.

6. Haley & Aldrich, Inc., 2011. *New Mexico Environment Department Discharge Permit DP-1481 Quarterly Report, Quarter 1, 2011.* April 2011.

7. New Mexico Environment Department, 2007. *Discharge Permit DP-1481.* 28 February 2007.

8. ------, 2008. *Amendment to Discharge Permit DP-1481.* 24 November 2008.

9. ------, 2011. *Amendment to Discharge Permit DP-1481.* 18 May 2011.

10. New Mexico Water Quality Control Commission. State of New Mexico, Ground and Surface Water Quality Protection Regulations 20.6.2.3103. http://www.nmcpr.state.nm.us/nmac/parts/title20/20.006.0002.htm

TABLE 1
MONITORING LOCATIONS, QUARTER 2, 2011
URENCO USA
LEA COUNTY, NM

Sample ID	Geological Unit	Sample Type	Longitude[1]	Latitude[1]	Sampled
Lift Station 1	---	LIFT STATION	-103.0832807	32.43074653	Yes
MW-01	Cooper Canyon	MONITORING WELL	-103.0874471	32.43869370	No
MW-02	Cooper Canyon	MONITORING WELL	-103.0779910	32.43915128	No
MW-03	Cooper Canyon	MONITORING WELL	-103.0772622	32.43150194	No
MW-04	Cooper Canyon	MONITORING WELL	-103.0755040	32.42966894	Yes
MW-05	Cooper Canyon	MONITORING WELL	-103.0741622	32.43481970	Yes
MW-06	Cooper Canyon	MONITORING WELL	-103.0741883	32.43942527	No
MW-07	Shallow	MONITORING WELL	-103.0743280	32.44253386	No
MW-08	Cooper Canyon	MONITORING WELL	-103.0775486	32.44247724	No
MW-09	Shallow	MONITORING WELL	-103.0832944	32.44245115	No
MW-10	Cooper Canyon	MONITORING WELL	-103.0839243	32.44252639	Yes
MW-11	Shallow	MONITORING WELL	-103.0856386	32.44250694	No
MW-12	Cooper Canyon	MONITORING WELL	-103.0886895	32.44250615	No
MW-13	Cooper Canyon	MONITORING WELL	-103.0896426	32.44101927	No
MW-14	Cooper Canyon	MONITORING WELL	-103.0899084	32.43246673	No
MW-15	Cooper Canyon	MONITORING WELL	-103.0854464	32.43125619	No
MW-16	Cooper Canyon	MONITORING WELL	-103.0812612	32.43068386	No
MW-17	Cooper Canyon	MONITORING WELL	-103.0827228	32.43983608	No
MW-18	Cooper Canyon	MONITORING WELL	-103.0892217	32.43782866	No
MW-20	Cooper Canyon	MONITORING WELL	-103.0805177	32.43747041	Yes
MW-21	Shallow	MONITORING WELL	-103.0793020	32.43748378	No[2]
MW-22	Shallow	MONITORING WELL	-103.0778488	32.43746436	No[2]
MW-23	Shallow	MONITORING WELL	-103.0811696	32.43705733	No[2]
MW-24	Shallow	MONITORING WELL	-103.0836345	32.43364595	No[2]
MW-25	Cooper Canyon	MONITORING WELL	-103.0841797	32.43363788	No[2]
MW-26	Shallow	MONITORING WELL	-103.0848631	32.43365875	No[2]
NW-OnSite	---	SOIL	-103.0906165	32.43882376	Yes
W-OnSite	---	SOIL	-103.0903642	32.43243844	Yes
SW-OnSite	---	SOIL	-103.0820200	32.43056058	Yes
S-OnSite	---	SOIL	-103.0796756	32.43018677	Yes
SE-OnSite	---	SOIL	-103.0755838	32.42965864	Yes
E-OnSite	---	SOIL	-103.0741675	32.43657203	Yes
NE-OnSite	---	SOIL	-103.0762916	32.44245573	Yes
N-OnSite	---	SOIL	-103.0828889	32.44237863	Yes
NW-OnSite	---	VEGETATION	-103.0906165	32.43882376	Yes
W-OnSite	---	VEGETATION	-103.0903642	32.43243844	Yes
SW-OnSite	---	VEGETATION	---	---	No[3]
S-OnSite	---	VEGETATION	---	---	No[3]
SE-OnSite	---	VEGETATION	---	---	No[3]
E-OnSite	---	VEGETATION	-103.0741675	32.43657203	Yes
NE-OnSite	---	VEGETATION	-103.0762916	32.44245573	Yes
N-OnSite	---	VEGETATION	-103.0828889	32.44237863	Yes
Pond 1	---	BASIN WATER	---	---	No[4]
Pond 2	---	BASIN WATER	---	---	No[4]
Pond 1	---	BASIN SEDIMENT	---	---	No[5]
Pond 2	---	BASIN SEDIMENT	---	---	No[5]

Notes:
1. The coordinate units are provided in latitude/longitude decimal degrees NAD 1983.
2. Well was scheduled for sampling but was dry when monitored.
3. Vegetation was not present at the monitoring location.
4. Basin water samples were not collected from Pond 1 or Pond 2 because water was not observed in Pond 1 and the water observed in Pond 2 was of insufficient depth for sampling.
5. Basin sediment samples were not collected from Pond 1 or Pond 2 during the monitoring event because no new accumulations of sediment were present.

TABLE 2
GROUNDWATER QUALITY DATA, QUARTER 2, 2011
URENCO USA
LEA COUNTY, NM

DP-1481 Suite				W	W	A	A	A	B	B	F	I
Analyte Name				Depth To Water	Static WL Elevation	Specific Conductance Field	pH Field	Temperature, Field	Chloride	Fluoride	Nitrate (as N)	Sulfate
Sample Preparation				NA	NA	Not Filtered	Not Filtered	Not Filtered	Not Filtered	Not Filtered	Not Filtered	Not Filtered
Units	Geologic Unit	Sample Date	Sample Type	feet	feet above MSL	mS/cm	pH units	Deg C	mg/L	mg/L	mg/L	mg/L
NMAC 20.6.2.3103A				-	-	-	-	-	-	1.6	10	-
NMAC 20.6.2.3103B				-	-	-	6-9	-	250	-	-	600
MW-04	Cooper	04/11/2011	Primary	156.50	3249.33	13.161	7.51	20.59	**2360** [B]	1.20	**24.0 J** [A]	**3330** [B]
MW-04	Cooper	04/11/2011	Duplicate	156.50	3249.33	-	-	-	**2370** [B]	0.948 J	**25.1 J** [A]	**3330** [B]
MW-05	Cooper	04/11/2011	Primary	127.31	3290.53	4.852	**5.52**[B]	19.57	**514** [B]	**1.75** [A]	2.00 J	**1430** [B]
MW-10	Cooper	04/12/2011	Primary	100.81	3338.81	8.764	7.57	19.84	**2030** [B]	1.23	0.100 U	**1530** [B]
MW-20	Cooper	04/12/2011	Primary	92.30	3323.25	11.726	7.39	18.84	**2470** [B]	0.954 J	0.100 U	**2450** [B]

TABLE 2
GROUNDWATER QUALITY DATA, QUARTER 2, 2011
URENCO USA
LEA COUNTY, NM

DP-1481 Suite				B	F	B	B	B	B
Analyte Name				Total Dissolved Solids (TDS)	Total Kjeldahl Nitrogen (TKN)	Uranium-233 & 234	Uranium-235 & 236	Uranium-238	Total Uranium
Sample Preparation				Not Filtered	Not Filtered	Filtered	Filtered	Filtered	Filtered
Units	Geologic Unit	Sample Date	Sample Type	mg/L	mg/L	uCi/ml	uCi/ml	uCi/ml	mg/L
NMAC 20.6.2.3103A				-	-	-	-	-	3.00E-02
NMAC 20.6.2.3103B				1000	-	-	-	-	-
MW-04	Cooper	04/11/2011	Primary	**9960** [B]	0.883 J	2.09E-08 ± 5.25E-10	1.23E-09 ± 1.43E-10	2.08E-08 ± 5.24E-10	**6.17E-02 ± 1.54E-03**[A]
MW-04	Cooper	04/11/2011	Duplicate	**10900** [B]	1.68	2.20E-08 ± 5.67E-10	1.16E-09 ± 1.46E-10	2.12E-08 ± 5.58E-10	**6.29E-02 ± 1.64E-03**[A]
MW-05	Cooper	04/11/2011	Primary	**3370** [B]	0.544	1.22E-08 ± 3.43E-10	4.41E-10 ± 7.33E-11	8.08E-09 ± 2.78E-10	2.40E-02 ± 8.18E-04
MW-10	Cooper	04/12/2011	Primary	**5890** [B]	1.89	1.62E-08 ± 3.54E-10	2.17E-10 ± 4.56E-11	3.01E-09 ± 1.53E-10	8.95E-03 ± 4.50E-04
MW-20	Cooper	04/12/2011	Primary	**8390** [B]	0.575	1.42E-08 ± 3.21E-10	4.05E-10 ± 6.03E-11	5.15E-09 ± 1.94E-10	1.53E-02 ± 5.71E-04

TABLE 2
GROUNDWATER QUALITY DATA, QUARTER 2, 2011
URENCO USA
LEA COUNTY, NM

NOTES AND ABBREVIATIONS:

Results were compared to the following criteria:

[A] Indicates result is greater than or equal to groundwater standards in New Mexico Administrative Code, Standards for Ground Water of 10,000 mg/l TDS Concentration or Less, 20.6.2.3103.A Human Health Standards.

[B] Indicates result is greater than or equal to groundwater standards in New Mexico Administrative Code, Standards for Ground Water of 10,000 mg/l TDS Concentration or Less, 20.6.2..3103.B Other Standards for Domestic Water Supply.

Cooper = Cooper Canyon Formation

MSL = Mean Sea Level

mg/L = Milligrams per liter.

uCi/ml = MicroCuries per liter.

mS/cm = milliSiemens per centimeter

J = Estimated value. Result may receive a J flag for the following reasons:
- Analyte (non-radiological) is detected at a level less than the reporting limit (RL) and greater than or equal to the method detection limit (MDL).
- Analyte (radiological) is detected at a level less than the RL and greater than or equal to the minimum detectable activity (MDA).
- Quality control deficiencies have compromised result accuracy (see Appendix B for details).

U = Not detected above the RL or MDA. Numerical value represents the RL for non-radiological data and the radionuclide activity for radiological data.

NA = Not applicable.

Radiological results are presented as activity plus or minus counting uncertainty.

Radiological samples were field filtered using a 0.45 micron filter.

Total Uranium results presented in mg/L. See Appendix B for data validation and unit conversion details.

TABLE 3
DOMESTIC WASTEWATER ANALYTICAL DATA, QUARTER 2, 2011
URENCO USA
LEA COUNTY, NM

DP-1481 Suite			B	B	F	B	F	B	B	B
Analyte Name			Chloride	Fluoride	Nitrate (as N)	Total Dissolved Solids (TDS)	Total Kjeldahl Nitrogen (TKN)	Uranium-233 & 234	Uranium-235 & 236	Uranium-238
Sample Preparation			Not Filtered	Not Filtered	Not Filtered	Not Filtered	Not Filtered	Not Filtered	Not Filtered	Not Filtered
Units	Sample Date	Sample Type	mg/L	mg/L	mg/L	mg/L	mg/L	uCi/ml	uCi/ml	uCi/ml
Lift Station 1	04/12/2011	Primary	139	2.13	2.00 R	716	125	1.10E-09 ± 1.97E-10	4.36E-11 ± 4.27E-11	6.53E-10 ± 1.53E-10

TABLE 3
DOMESTIC WASTEWATER ANALYTICAL DATA, QUARTER 2, 2011
URENCO USA
LEA COUNTY, NM

NOTES AND ABBREVIATIONS:

Radiological results are presented as activity plus or minus counting uncertainty.

mg/L = Milligrams per liter.

uCi/ml = MicroCuries per liter.

R = Rejected result (see Appendix B for details).

U = Not detected above the reporting limit (RL) or minimum detectable activity (MDA). Numerical value represents the RL for non-radiological data and the radionuclide activity for radiological data.

TABLE 4
SOIL AND VEGETATION ANALYTICAL DATA, QUARTER 2, 2011
URENCO USA
LEA COUNTY, NM

DP-1481 Suite Analyte Name Units	Sample Date	Sample Type	B Fluoride mg/kg
SOIL			
E-OnSite-SO	04/14/2011	Primary	3.54
N-OnSite-SO	04/14/2011	Primary	1.45
NE-OnSite-SO	04/14/2011	Primary	1.26
NW-OnSite-SO	04/14/2011	Primary	0.693 J
NW-OnSite-SO	04/14/2011	Duplicate	0.700 J
S-OnSite-SO	04/14/2011	Primary	3.62
SE-OnSite-SO	04/14/2011	Primary	1.17
SW-OnSite-SO	04/14/2011	Primary	1.29
W-OnSite-SO	04/14/2011	Primary	0.775 J
VEGETATION			
E-OnSite-VE	04/14/2011	Primary	96.2 U
N-OnSite-VE	04/14/2011	Primary	20.8
NE-OnSite-VE	04/14/2011	Primary	99.3 U
NW-OnSite-VE	04/14/2011	Primary	98.0 U
NW-OnSite-VE	04/14/2011	Duplicate	98.0 U
W-OnSite-VE	04/14/2011	Primary	97.6 U

TABLE 4
SOIL AND VEGETATION ANALYTICAL DATA, QUARTER 2, 2011
URENCO USA
LEA COUNTY, NM

NOTES AND ABBREVIATIONS:

mg/kg = milligrams per kilogram

J = Estimated value. Result may receive a J flag for the following reasons:
- Analyte (non-radiological) is detected at a level less than the reporting limit (RL) and greater than or equal to the method detection limit (MDL).
- Quality control deficiencies have compromised result accuracy (see Appendix B for details).

U = Not detected above the RL or minimum detectable activity (MDA). Numerical value represents the RL for non-radiological data and the radionuclide activity for radiological data.

TABLE 5
GROUNDWATER DEPTH AND ELEVATION, QUARTER 2, 2011
URENCO USA
LEA COUNTY, NM

Well Identifier	Geological Unit	Date of Measurement	Reference Point Elevation (feet above MSL)	Depth to Water (feet) / Depth of Dry Well (feet)	Correction Factor	Static Water Level Elevation (feet above MSL)
MW-01	Cooper	4/14/2011	3418.37	216.14	-0.17	3202.06
MW-02	Cooper	4/11/2011	3425.25	92.57	-0.08	3332.60
MW-02	Cooper	4/14/2011	3425.25	91.81	-0.17	3333.27
MW-04	Cooper	4/11/2011	3406.00	153.91	-0.08	3252.01
MW-04	Cooper	4/14/2011	3406.00	156.50	-0.17	3249.33
MW-05	Cooper	4/11/2011	3418.01	124.65	-0.08	3293.28
MW-05	Cooper	4/14/2011	3418.01	127.31	-0.17	3290.53
MW-06	Cooper	4/11/2011	3424.73	120.11	-0.08	3304.54
MW-06	Cooper	4/14/2011	3424.73	119.35	-0.17	3305.21
MW-07	Shallow	4/11/2011	3432.86	Dry at 35	---	---
MW-07	Shallow	4/14/2011	3432.86	Dry at 35	---	---
MW-08	Cooper	4/11/2011	3437.57	181.49	-0.08	3256.00
MW-08	Cooper	4/14/2011	3437.57	180.70	-0.17	3256.70
MW-09	Shallow	4/11/2011	3436.28	Dry at 23	---	---
MW-09	Shallow	4/14/2011	3436.28	Dry at 23	---	---
MW-10	Cooper	4/11/2011	3439.79	99.41	-0.08	3340.30
MW-10	Cooper	4/14/2011	3439.79	100.81	-0.17	3338.81
MW-11	Shallow	4/14/2011	3440.97	Dry at 30	---	---
MW-12	Cooper	4/14/2011	3441.56	118.59	-0.17	3322.80
MW-13	Cooper	4/14/2011	3429.73	214.55	-0.17	3215.01
MW-14	Cooper	4/14/2011	3394.06	Dry at 239	---	---
MW-15	Cooper	4/11/2011	3398.91	Dry at 240	---	---
MW-15	Cooper	4/14/2011	3398.91	Dry at 240	---	---
MW-16	Cooper	4/11/2011	3405.62	Dry at 235	---	---
MW-16	Cooper	4/14/2011	3405.62	Dry at 235	---	---
MW-17	Cooper	4/11/2011	3429.03	94.65	-0.08	3334.30
MW-17	Cooper	4/14/2011	3429.03	93.91	-0.17	3334.95
MW-18	Cooper	4/14/2011	3412.50	Dry at 235	---	---
MW-20	Cooper	4/11/2011	3415.72	91.00	-0.08	3324.64
MW-20	Cooper	4/14/2011	3415.72	92.30	-0.17	3323.25
MW-21	Shallow	4/11/2011	3416.94	Dry at 38	---	---
MW-21	Shallow	4/14/2011	3416.94	Dry at 38	---	---
MW-22	Shallow	4/14/2011	3416.86	Dry at 40	---	---
MW-23	Shallow	4/11/2011	3419.21	Dry at 40	---	---
MW-23	Shallow	4/14/2011	3419.21	Dry at 40	---	---
MW-24	Shallow	4/11/2011	3405.67	Dry at 42	---	---
MW-24	Shallow	4/14/2011	3405.67	Dry at 42	---	---
MW-25	Cooper	4/11/2011	3404.50	Dry at 238	---	---
MW-25	Cooper	4/14/2011	3404.50	Dry at 238	---	---
MW-26	Shallow	4/11/2011	3460.14	Dry at 44	---	---
MW-26	Shallow	4/14/2011	3460.14	Dry at 44	---	---

TABLE 5
GROUNDWATER DEPTH AND ELEVATION, QUARTER 2, 2011
URENCO USA
LEA COUNTY, NM

NOTES AND ABBREVIATIONS:

Cooper = Cooper Canyon Formation

MSL = Mean Sea Level.

Static water level elevations were calculated using the following equation:

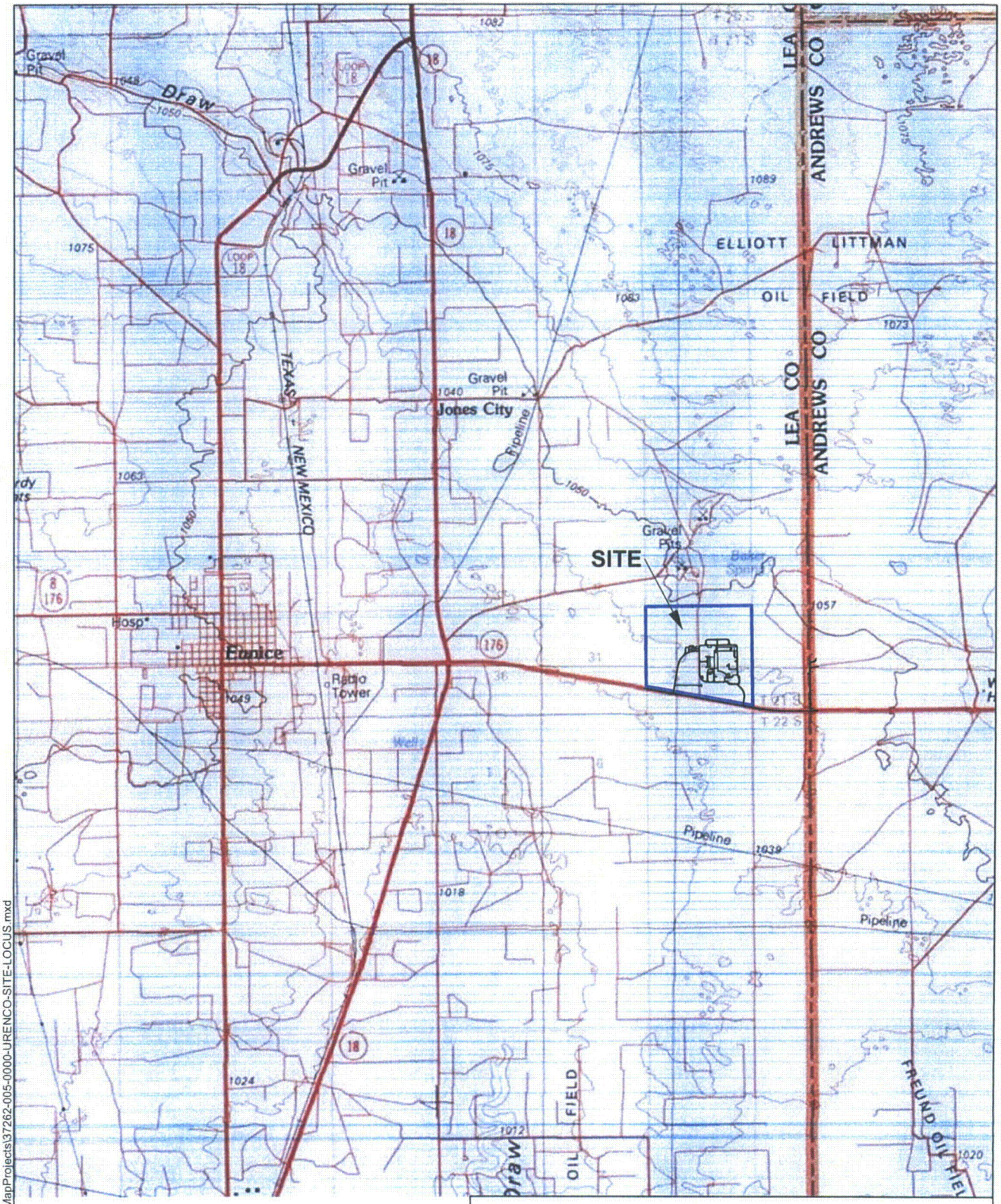
$E_W = E - D + C$

Where:

E_W = Elevation of water above mean sea level (feet)
E = Elevation above sea level at point of measurement (feet)
D = Depth to water (feet)
C = Calibration correction factor (feet).

Depth of dry well is measured from top of casing.

Compared to previous quarters, the reference point elevation changed at wells MW-04, MW-05, MW-10, and MW-20 where low-flow equipment was installed.



HALEY & ALDRICH

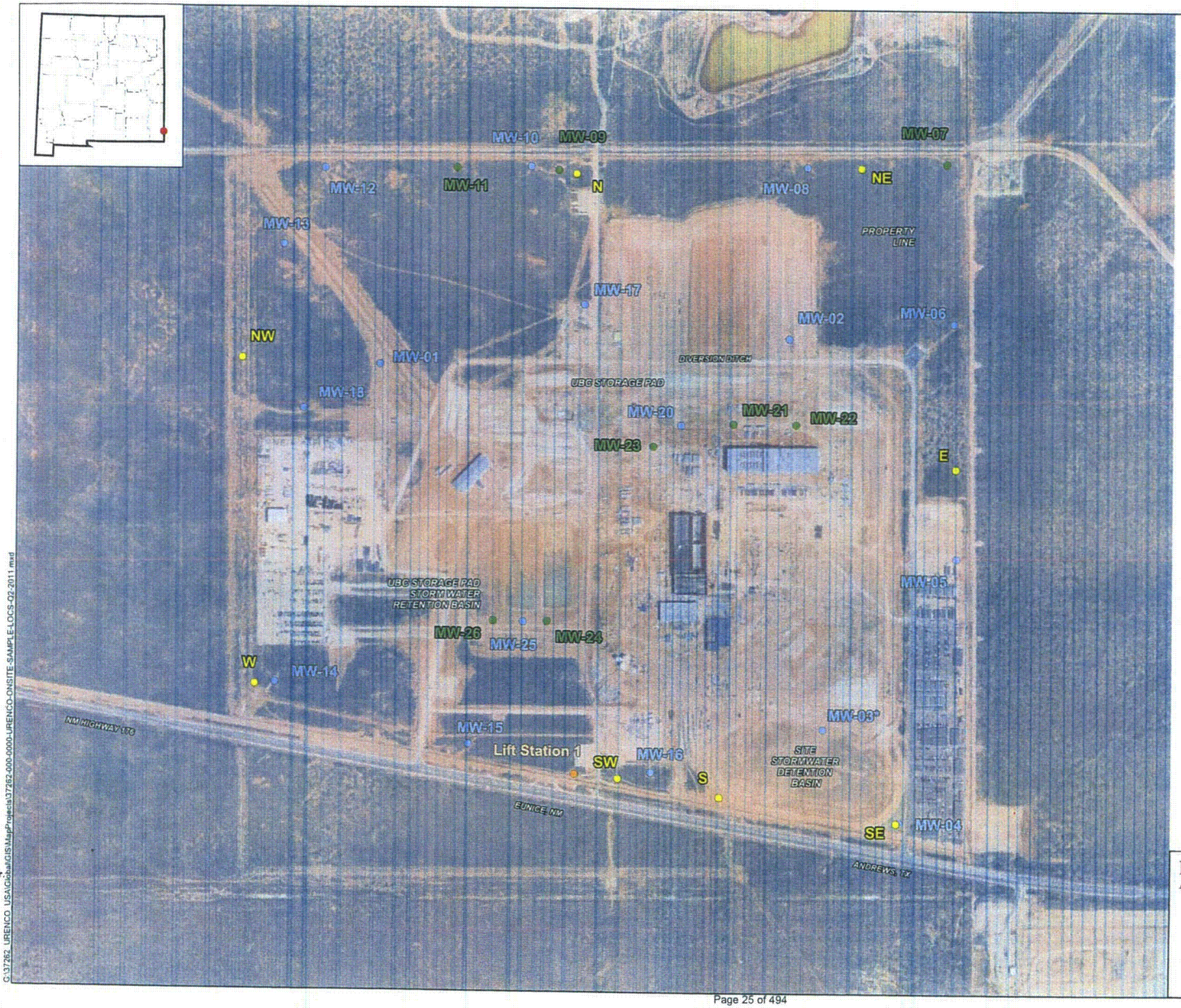
URENCO USA
LEA COUNTY, NM

SITE LOCATION MAP

SCALE: AS SHOWN
JULY 2011

FIGURE 1

G:\37262_URENCO_USA\Global\GIS\MapProjects\37262-005-0000-URENCO-SITE-LOCUS.mxd



LEGEND

- COOPER CANYON FORMATION MONITORING WELL
- SHALLOW MONITORING WELL
- Q2 ON-SITE SOIL/VEGETATION SAMPLE LOCATION
- Q2 LIFT STATION 1 SAMPLE LOCATION

NOTES:

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. (*) = PLUGGED AND ABANDONED MARCH 2007.
3. IMAGE SOURCE/DATE: USDA FSA NAIP IMAGERY / DATE: 9/16/2008.

N
W E
S

0 700 1,400
SCALE IN FEET

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URENCO USA
LEA COUNTY, NM

SAMPLE LOCATIONS,
QUARTER 2, 2011

SCALE: AS SHOWN
JULY 2011

FIGURE 2

G:\37262_URENCO_USA\GlobalGIS\MapProjects\37262-000-0000-URENCO-ONSITE-SAMPLE-LOCS-Q2-2011.mxd