



370 17th Street, Suite 2500
Denver, Colorado 80202
303-605-1893 – main
303-605-1957 – fax

May 17, 2012

Mr. Leonard Lowe
Environmental Bureau Chief
New Mexico Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, NM 87505

**RE: First 2012 Semi Annual Groundwater Monitoring Report
DCP Monument Booster Station (1RP-156-0)
Unit B Section 33, Township 19 South, Range 37 East**

Dear Mr. Lowe:

DCP Midstream, LP (DCP) is pleased to submit for your review one copy of the First 2012 Semi Annual Groundwater Monitoring Report for the DCP Monument Booster Station located in Lea County, New Mexico (Unit B Section 33, Township 19 South, Range 37 East).

Groundwater monitoring activities were completed on March 6, 2012. The data indicate that the groundwater conditions remain stable. The next semi-annual monitoring event is scheduled for the second half of 2012.

If you have any questions regarding the report, please call at 303-605-1695 or e-mail me CECole@dcpmidstream.com.

Sincerely,

DCP Midstream, LP

Chandler E Cole.
Senior Environmental Specialist

Enclosure

cc: Larry Johnson – OCD District Office, Hobbs
Environmental Files

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RECEIVED OCD

**First Half 2012 Semi-Annual Groundwater
Monitoring Summary Report**

**Monument Booster Station
Lea County, New Mexico
1RP-156-0**

Prepared for:



370 17th St., Suite 2500
Denver, CO 80202

Prepared by:



Tasman Geosciences

5690 Webster Street
Arvada, CO 80002

May 4, 2012

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1. Introduction

Tasman Geosciences, LLC (Tasman) is submitting to DCP Midstream (DCP) the results of the first half 2012 semi-annual groundwater monitoring activities conducted March 6, 2012 at the Monument Booster Station (Site) in Lea County, New Mexico (Figure 1). The purpose of the field activities described herein were to: a) determine the presence of light non-aqueous phase liquid (LNAPL) hydrocarbons; b) measure groundwater levels; c) obtain groundwater samples for chemical analysis; and d) evaluate and present groundwater flow and quality conditions. The field data and laboratory analytical results were used to develop a groundwater elevation map, an analytical results map, and LNAPL versus time and groundwater elevation graphs, to evaluate current conditions at the Site.

2. Site Location and Background

The Site is located in New Mexico Oil Conservation Division (OCD) designated Unit B, Section 33, Township 19 South, Range 37 East (Figure 1). The facility coordinates are 32.6240 degrees north and 103.2555 degrees west. This facility is active and continues to be used for gas compression and other activities. DCP also owns the property to the south and east that is contiguous to the fenced facility boundary (Figure 2).

In 1992 three underground storage tanks (USTs) that formerly contained used oil and pipeline liquids (oil and/or natural gas liquid condensate) near the main compressor building were removed. At that time and again in 1994, hydrocarbon-impacted soils (approximately 1,000 cubic yards) were excavated and removed from the Site. Also in 1994, subsurface soil and groundwater investigation activities were initiated to define the horizontal and vertical extent of residual hydrocarbon impacts. In 1994, two groundwater monitoring wells were installed and six soil borings were advanced. In 1995, six additional monitoring wells were installed and one soil boring was advanced.

Hand bailing of LNAPL was initiated in monitoring wells MW-1 and MW-5 in 1995/1996. In 1997, the LNAPL remediation technique was modified to an automated pneumatic product recovery pumping system (Xitech system) in these wells. Around 1999/2000, the Xitech system was taken out of service at both wells and replaced by product absorbent socks and hand bailing. Sometime in mid-2000, the product removal activities ceased while groundwater monitoring continued.

The Site currently has eight groundwater monitoring wells (MW-1, MW-1D, MW-2, MW-3, MW-4, MW-5, MW-6 and MW-7). Seven of the wells are located on the gas compressor facility, and MW-3 is located in the southeast corner of the adjacent DCP owned property. Well MW-2 is located in the northwest corner of the gas compressor facility and is considered the up-gradient well for the Site. Based on previous data, it appears that a release occurred near the former pipeline liquids aboveground storage tank (AST) located near wells MW-1 and MW-1D in the center of the gas compressor facility along the eastern property boundary (Figure 2). Since 1994/1995, monitoring wells MW-1 and MW-5 have continued to exhibit measurable LNAPL.

3. Groundwater Monitoring

This section describes the field groundwater monitoring activities as well as the laboratory analyses performed during the first half 2012 semi-annual monitoring event. Monitoring activities included Site-wide groundwater gauging, LNAPL measurements, groundwater purging and sampling, and subsequent packaging and shipping of the samples to the laboratory for chemical analyses. Figure 2 illustrates the groundwater monitoring network utilized to perform these activities at the Site.

3.1 Groundwater and LNAPL Elevation Monitoring

Groundwater and LNAPL levels were measured in order to evaluate hydraulic characteristics and provide information regarding fluctuations in groundwater and LNAPL elevations at the Site. In addition, wells that did not have LNAPL present were measured for total depth in order to estimate groundwater purge volumes. During the first half 2012 semi-annual monitoring event, groundwater levels and LNAPL thickness was measured at eight Site monitoring well locations.

Groundwater levels were measured on the north side of the well casing to the nearest 0.01-foot using an oil-water interface probe (IP). Groundwater levels were later converted to elevations (feet above mean sea level [AMSL]). LNAPL levels, where indicated by the IP, were also recorded.

Groundwater level measurements collected during the first half 2012 semi-annual monitoring event are presented in Table 1, and the first half 2012 semi-annual groundwater elevation contour map is illustrated on Figure 3. Groundwater elevations ranged from 3,566.59 feet AMSL at monitoring well MW-2 to 3,560.29 feet AMSL at monitoring well MW-3. As illustrated on Figure 3, groundwater flow at the Site generally trends to the southeast with a gradient of approximately 0.0066 foot per foot between monitoring wells MW-2 and MW-3.

LNAPL was detected at MW-1 (0.23-feet) and MW-5 (1.16-feet) with measured thicknesses indicated in parenthesis.

3.2 Groundwater Quality Monitoring

Groundwater levels, the presence of LNAPL, and total depth (in wells without LNAPL) were measured in Site monitoring wells prior to sampling. Subsequently, a minimum of three well casing volumes of groundwater (calculated from total depth of the well and groundwater level measurements) were purged using polyethylene bailers from the subject well prior to collecting groundwater samples. Groundwater samples were collected using the same dedicated polyethylene bailers, placed in clean laboratory supplied containers for the selected analytical methods, packed in an ice-filled cooler and maintained at approximately four (4) degrees Celsius ($^{\circ}\text{C}$) for transportation. Groundwater samples were then shipped under chain-of-custody procedures to ALS Environmental laboratory (ALS) in Houston, Texas for analysis.

Water quality samples were collected from six of eight wells. MW-1 and MW-5 were not sampled due to the presence of measurable LNAPL detected in the well. Water quality samples were submitted to ALS for benzene, toluene, ethylbenzene, and xylene (BTEX) analyses by United States Environmental Protection Agency (USEPA) Method 8260B.

Table 2 summarizes BTEX concentrations in groundwater samples collected during the March 2012 event. Analytical results were compared to the New Mexico Water Quality Control Commission (NMWQCC) groundwater standards. Laboratory analytical reports for the event are included in Appendix A and analytical results are summarized on Figure 4. The analytical results for monitoring wells sampled are as follows:

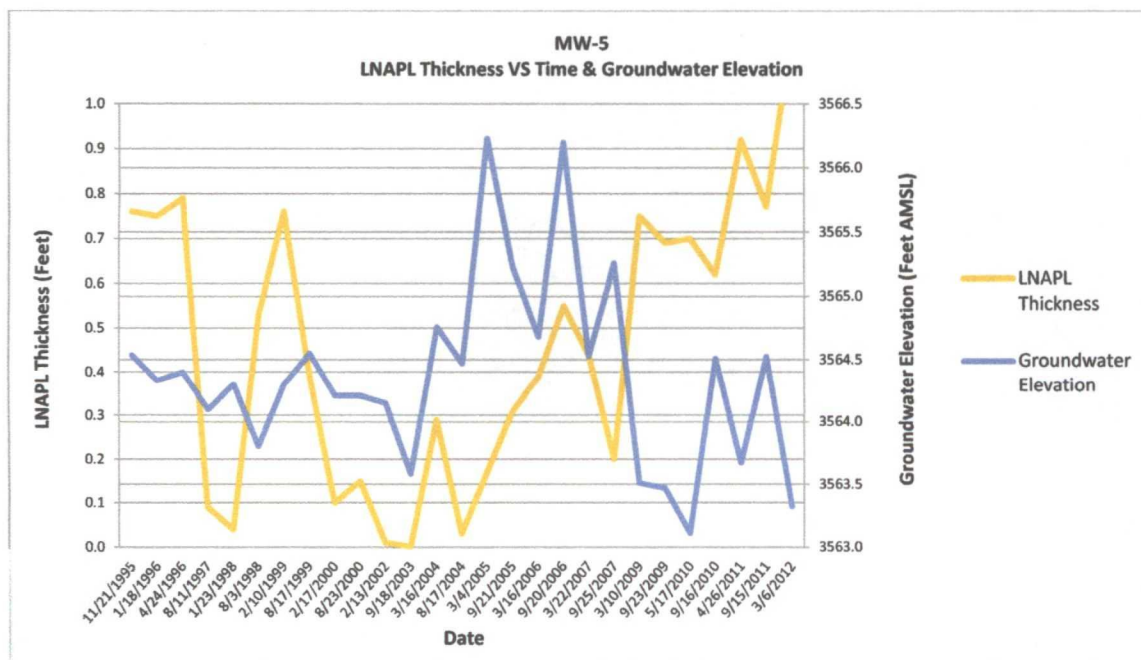
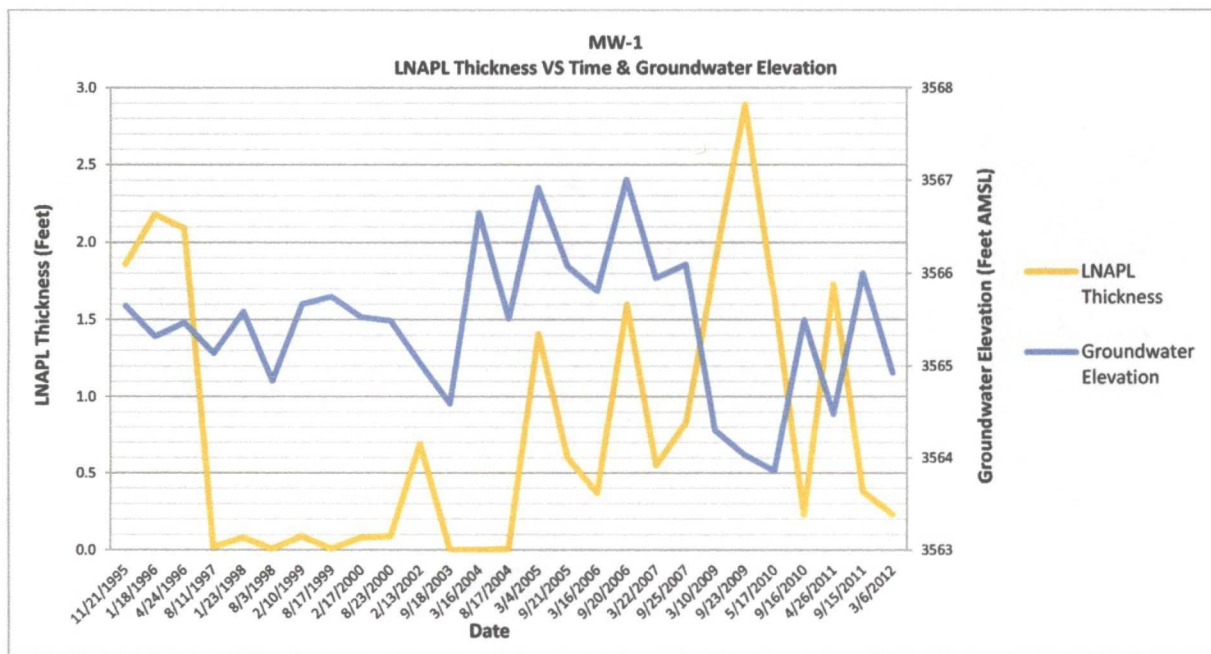
- MW-1D, MW-2, MW-3, MW-4 and MW-6: BTEX concentrations were non-detect (below laboratory reporting limits) in these wells;
- MW-7: Benzene was detected at 0.0098 milligrams per liter (mg/L) and ethylbenzene at 0.0088 mg/L, both of which are below their respective NMWQCC Groundwater Standard. Toluene and xylene were non-detect (below laboratory reporting limits).

Water quality parameters were collected during the first half 2012 monitoring event. Monitoring wells did not require collection of more than three purge volumes to achieve parameter stabilization. As such, the analytical data are considered to be representative of Site conditions in that a minimum of 3 purge volumes were removed from all sampled monitoring wells during the first half 2012 semi-annual event.

4. Remediation Activities

Natural attenuation continues to provide effective control and passive remediation of dissolved-phase constituents and LNAPL on Site. Monitoring wells MW-3, MW-4 and MW-6, which act as “point of compliance” wells along the down-gradient facility and/or property boundaries, continue to exhibit non-detect dissolved-phase BTEX concentrations in groundwater. Based on the historic and recent data, it appears that natural attenuation provides effective remediation of residual impacts at the Site.

As illustrated in the graphs below, LNAPL thickness in MW-1 and MW-5 does not appear to exhibit any seasonal fluctuation trends or a relationship to groundwater levels.



5. Conclusions

During the first half 2012 semi-annual event, none of the six monitoring wells sampled exhibited dissolved-phase hydrocarbon impacts above the NMWQCC Groundwater Standards.

Measurable LNAPL remains at MW-1 and MW-5. Considering the apparent minimal subsurface aerial extent of LNAPL and minimal extent of dissolved-phase hydrocarbons at the Site, the residual source material does not appear significant in terms of emplaced volume. The persistence of LNAPL in the vicinity of MW-1 and MW-5 (detected at these well for approximately 15 years) and absence of down gradient free phase hydrocarbons and dissolved-phase impacts in groundwater indicates that the residual constituents of concern are not mobile in the subsurface and natural attenuation is continuing at the Site.

Key factors that may be affecting mobility of LNAPL at the Site likely include the transmissivity of the subsurface formation and the hydraulic gradient across the Site. There appears to be minimal hydraulic gradient potential at the Site, so even though the subsurface may be transmissive the overall plume velocity is slow and therefore does not influence LNAPL mobility. Biodegradation of source material over distance and time from the point of release are likely occurring because dissolved-phase BTEX constituents in groundwater are minimal near the residual LNAPL and further are confirmed ("point of compliance" wells along the down gradient property boundary continue to be non-detect for all BTEX constituents) to be maintained on Site.

Ongoing semi-annual groundwater sampling activities will provide for continued monitoring of Site dissolved-phase BTEX concentrations and LNAPL trends.

6. Recommendations

Based on evaluation of first-half 2012 Site observations and monitoring results, continued semi-annual groundwater monitoring and sampling at the monitoring locations illustrated on Figure 2 is recommended.

Tables

TABLE 1
FIRST HALF 2012 SEMI-ANNUAL
SUMMARY OF GROUNDWATER ELEVATION DATA
MONUMENT BOOSTER STATION
LEA COUNTY, NEW MEXICO

Location	Date	Depth to Groundwater (1) (feet)	Depth to Product (1) (feet)	Free Phase Hydrocarbon Thickness (feet)	Total Depth (2) (feet)	TOC Elevation (feet amsl)	Groundwater Elevation (feet amsl)	Change in Groundwater Elevation Since Previous Event (3) (feet)
MW-1	9/23/2009			2.89		3591.15	3564.03	-0.27
MW-1	5/17/2010			1.64		3591.15	3563.86	-0.17
MW-1	9/16/2010			0.23		3591.15	3565.50	1.64
MW-1	4/26/2011	27.97	26.24	1.73		3591.15	3564.48	-1.02
MW-1	9/15/2011	25.43	25.05	0.38		3591.15	3566.01	1.53
MW-1	3/6/2012	26.40	26.17	0.23		3591.15	3564.92	-1.08
MW-1D	9/23/2009					3591.31	3564.63	0.03
MW-1D	5/17/2010					3591.31	3564.11	-0.52
MW-1D	9/16/2010					3591.31	3565.68	1.57
MW-1D	4/26/2011	26.49				3591.31	3564.82	-0.86
MW-1D	9/15/2011	25.17			36.36	3591.31	3566.14	1.32
MW-1D	3/6/2012	26.67			36.36	3591.31	3564.64	-1.50
MW-2	9/23/2009					3596.30	3566.73	-0.02
MW-2	5/17/2010					3596.30	3566.22	-0.51
MW-2	9/16/2010					3596.30	3567.26	1.04
MW-2	4/26/2011	29.49				3596.30	3566.81	-0.45
MW-2	9/15/2011	28.99			43.26	3596.30	3567.31	0.50
MW-2	3/6/2012	29.71			43.26	3596.30	3566.59	-0.72
MW-3	9/23/2009					3583.86	3560.62	-0.42
MW-3	5/17/2010					3583.86	3560.26	-0.36
MW-3	9/16/2010					3583.86	3561.38	1.12
MW-3	4/26/2011	22.65				3583.86	3561.21	-0.17
MW-3	9/15/2011	23.51			35.70	3583.86	3560.35	-0.86
MW-3	3/6/2012	23.57			35.70	3583.86	3560.29	-0.06
MW-4	9/23/2009					3588.77	3561.99	-0.22
MW-4	5/17/2010					3588.77	3561.62	-0.37
MW-4	9/16/2010					3588.77	3562.87	1.25
MW-4	4/26/2011	26.60				3588.77	3562.17	-0.70
MW-4	9/15/2011	26.65			38.99	3588.77	3562.12	-0.05
MW-4	3/6/2012	26.91			38.99	3588.77	3561.86	-0.26
MW-5	9/23/2009			0.69		3592.16	3563.47	-0.04
MW-5	5/17/2010			0.70		3592.16	3563.11	-0.36
MW-5	9/16/2010			0.62		3592.16	3564.51	1.40
MW-5	4/26/2011	29.18	28.26	0.92		3592.16	3563.67	-0.84
MW-5	9/15/2011	28.21	27.44	0.77		3592.16	3564.53	0.86
MW-5	3/6/2012	29.71	28.55	1.16		3592.16	3563.32	-1.21
MW-6	9/23/2009					3587.93	3562.12	
MW-6	5/17/2010					3587.93	3561.83	-0.29
MW-6	9/16/2010					3587.93	3563.54	1.71
MW-6	4/26/2011	25.47				3587.93	3562.46	-1.08
MW-6	9/15/2011	25.28			39.51	3587.93	3562.65	0.19
MW-6	3/6/2012	25.99			39.51	3587.93	3561.94	-0.71
MW-7	9/23/2009					3589.40	3563.17	-0.07
MW-7	5/17/2010					3589.40	3562.70	-0.47
MW-7	9/16/2010					3589.40	3564.16	1.46
MW-7	4/26/2011	26.00				3589.40	3563.40	-0.76
MW-7	9/15/2011	25.07			35.85	3589.40	3564.33	0.93
MW-7	3/6/2012	26.30			35.85	3589.40	3563.10	-1.23
Average Change in groundwater elevation since the previous monitoring event								-0.85

Notes:

- 1- Depths measured from the north edge of the well casing.
- 2- Total depths were collected and recorded during the first 2012 semi-annual monitoring event.
- 3- Changes in groundwater elevation calculated by subtracting the measurement collected during the previous monitoring event from the measurement collected during the most recent monitoring event.

- Data presented for well locations includes previous four sampling events, when available. Historic groundwater elevation data for these locations are available upon request.

Sample locations are shown on Figure 2 and a groundwater elevation contour map is shown on Figure 3.

amsl - feet above mean sea level.

TOC - top of casing

NM - not measured

* Groundwater elevation was corrected for product thickness using the following calculation:

$$\text{Water table elevation} = \text{Water Elevation in Well} + ([\text{LNAPL Thickness in Well}] * [\text{LNAPL Density}])$$

LNAPL density was assumed to be approximately 0.75 grams per cubic centimeter

TABLE 2
FIRST HALF 2012 SEMI-ANNUAL
SUMMARY OF BTX CONCENTRATIONS IN GROUNDWATER
MONUMENT BOOSTER STATION
LEA COUNTY, NEW MEXICO

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-1	9/15/2011	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	3/6/2012	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1D	9/23/2009	<0.002	<0.002	<0.002	<0.006	
MW-1D	5/17/2010	<0.002	<0.002	<0.002	<0.006	
MW-1D	9/16/2010	<0.002	<0.002	<0.002	<0.004	
MW-1D	4/26/2011	<0.001	<0.002	<0.002	<0.002	
MW-1D	9/15/2011	<0.001	<0.002	<0.002	<0.004	
MW-1D	3/6/2012	<0.005	<0.005	<0.005	<0.015	
MW-2	9/23/2009	<0.002	<0.002	<0.002	<0.006	
MW-2	5/17/2010	<0.002	<0.002	<0.002	<0.006	
MW-2	9/16/2010	<0.001	<0.002	<0.002	<0.004	
MW-2	4/26/2011	<0.001	<0.002	<0.002	<0.002	
MW-2	9/15/2011	<0.001	<0.002	<0.002	<0.004	
MW-2	3/6/2012	<0.005	<0.005	<0.005	<0.015	
MW-3	9/23/2009	<0.002	<0.002	<0.002	<0.006	
MW-3	5/17/2010	<0.002	<0.002	<0.002	<0.006	
MW-3	9/16/2010	<0.001	<0.002	<0.002	<0.004	
MW-3	4/26/2011	<0.001	<0.002	<0.002	<0.002	
MW-3	9/15/2011	<0.001	<0.002	<0.002	<0.004	
MW-3	3/6/2012	<0.005	<0.005	<0.005	<0.015	
MW-4	9/23/2009	<0.002	<0.002	<0.002	<0.006	
MW-4	5/17/2010	<0.002	<0.002	<0.002	<0.006	
MW-4	9/16/2010	<0.001	<0.002	<0.002	<0.004	
MW-4	4/26/2011	<0.001	<0.002	<0.002	<0.002	
MW-4	9/15/2011	<0.001	<0.002	<0.002	<0.004	
MW-4	3/6/2012	<0.005	<0.005	<0.005	<0.015	
MW-5	9/15/2011	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	3/6/2012	LNAPL	LNAPL	LNAPL	LNAPL	
MW-6	9/23/2009	0.035	<0.002	0.0215	.0052J	
MW-6	5/17/2010	<0.002	<0.002	<0.002	<0.006	
MW-6	9/16/2010	<0.001	<0.002	<0.002	<0.004	
MW-6	4/26/2011	<0.001	<0.002	<0.002	<0.002	
MW-6	9/15/2011	<0.001	<0.002	<0.002	<0.004	
MW-6	3/6/2012	<0.005	<0.005	<0.005	<0.015	
MW-7	9/23/2009	0.0332/<0.002	<0.002/<0.002	.0176/<0.002	0.0033J/<0.006	
MW-7	5/17/2010	0.0201/0.0198	<0.002/<0.002	.0095/.0092	0.0033J/0.0033J	
MW-7	9/16/2010	0.522/0.512	<0.01/<0.01	0.294/0.289	0.0383/0.0378	
MW-7	4/26/2011	0.0091/0.0104	<0.01/<0.01	0.0042/0.0041	<0.01/<0.01	
MW-7	9/15/2011	0.394	<0.01	0.149	0.0442	Duplicate sample collected
MW-7	3/6/2012	0.0098	<0.0050	0.0088	<0.015	

Notes:

1.) The environmental cleanup standards for water that are applicable to the Monument Booster Station are the New Mexico Water Quality Control Commission (NMWQCC) Groundwater Standards.

2.) Monitoring well locations MW-1 and MW-5 have historically exhibited measurable LNAPL during groundwater monitoring events. Therefore, those wells have not been sampled.

3.) Data presented for well locations include previous four sampling events, when available. Historic groundwater analytical results for these locations are available upon request.

Bold red values indicate an exceedance of the NMWQCC groundwater standards for the Site.

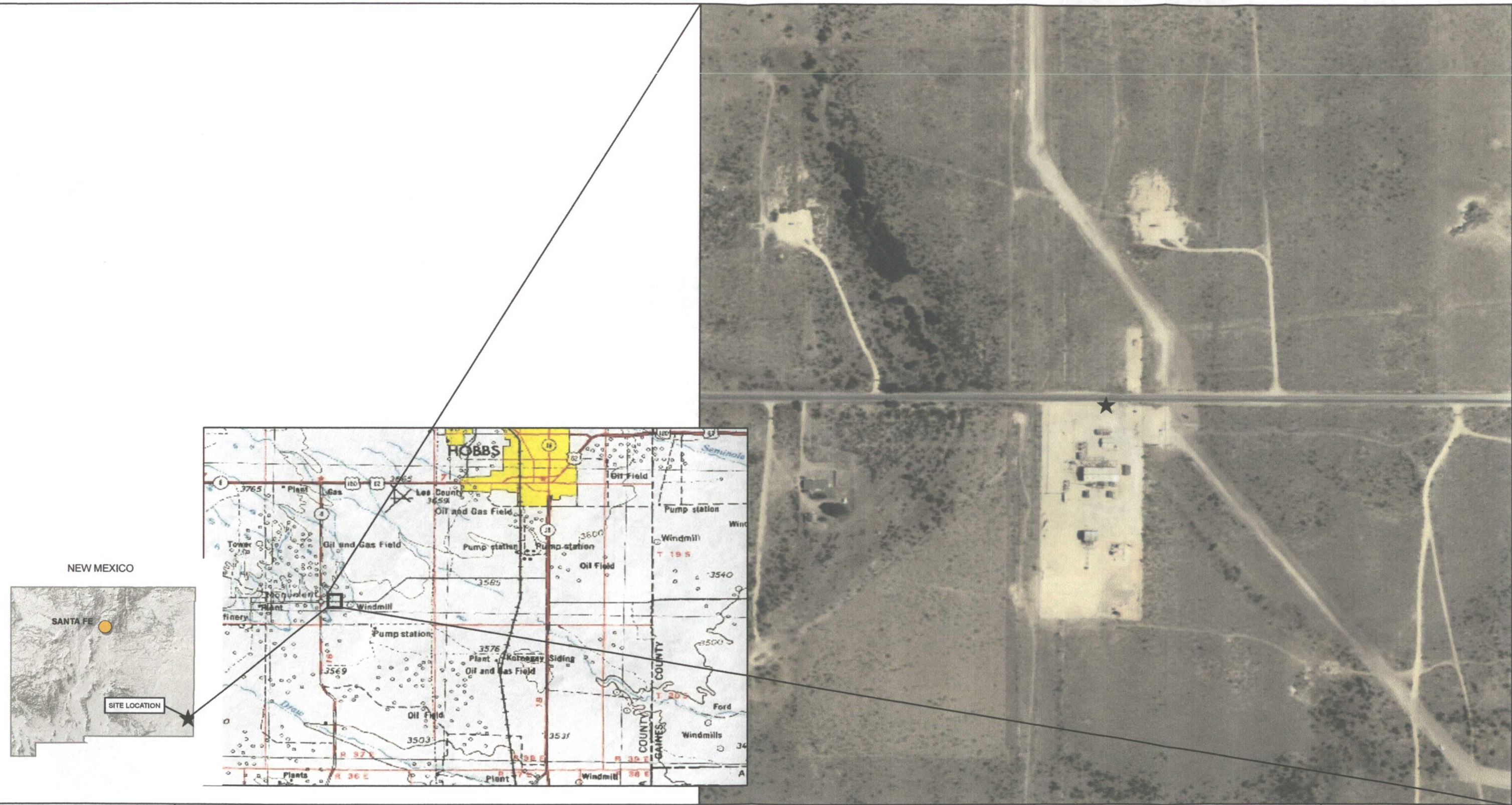
Sample locations are shown on Figure 2 and analytical results are illustrated on Figure 4.

LNAPL = Light Non-Aqueous Phase Liquid

NM = Not measured.

mg/L = milligrams per liter.

Figures



DESIGNED BY: C. Wasko

DRAWN BY: J. Clonts

SHEET CHK'D BY: _____

CROSS CHK'D BY: _____

APPROVED BY: _____

APPROVED BY: _____



Tasman Geosciences

Tasman Geosciences, LLC
5690 Webster St.
Arvada, CO 8002
720-988-2024

MONUMENT BOOSTER STATION

*First Half 2012 Groundwater Monitoring
Summary Report*

SITE LOCATION

FIGURE
1



DESIGNED BY: C. Wasko
DRAWN BY: J. Clonts
SHEET CHK'D BY: _____
CROSS CHK'D BY: _____
APPROVED BY: _____
APPROVED BY: _____



Tasman Geosciences, LLC
5690 Webster St.
Arvada, CO 8002
720-988-2024

MONUMENT BOOSTER STATION
*First Half 2012 Groundwater Monitoring
Summary Report*

SITE MAP

FIGURE
2



DESIGNED BY: C. Wasko
 DRAWN BY: J. Clonts
 SHEET CHK'D BY: _____
 CROSS CHK'D BY: _____
 APPROVED BY: _____
 APPROVED BY: _____



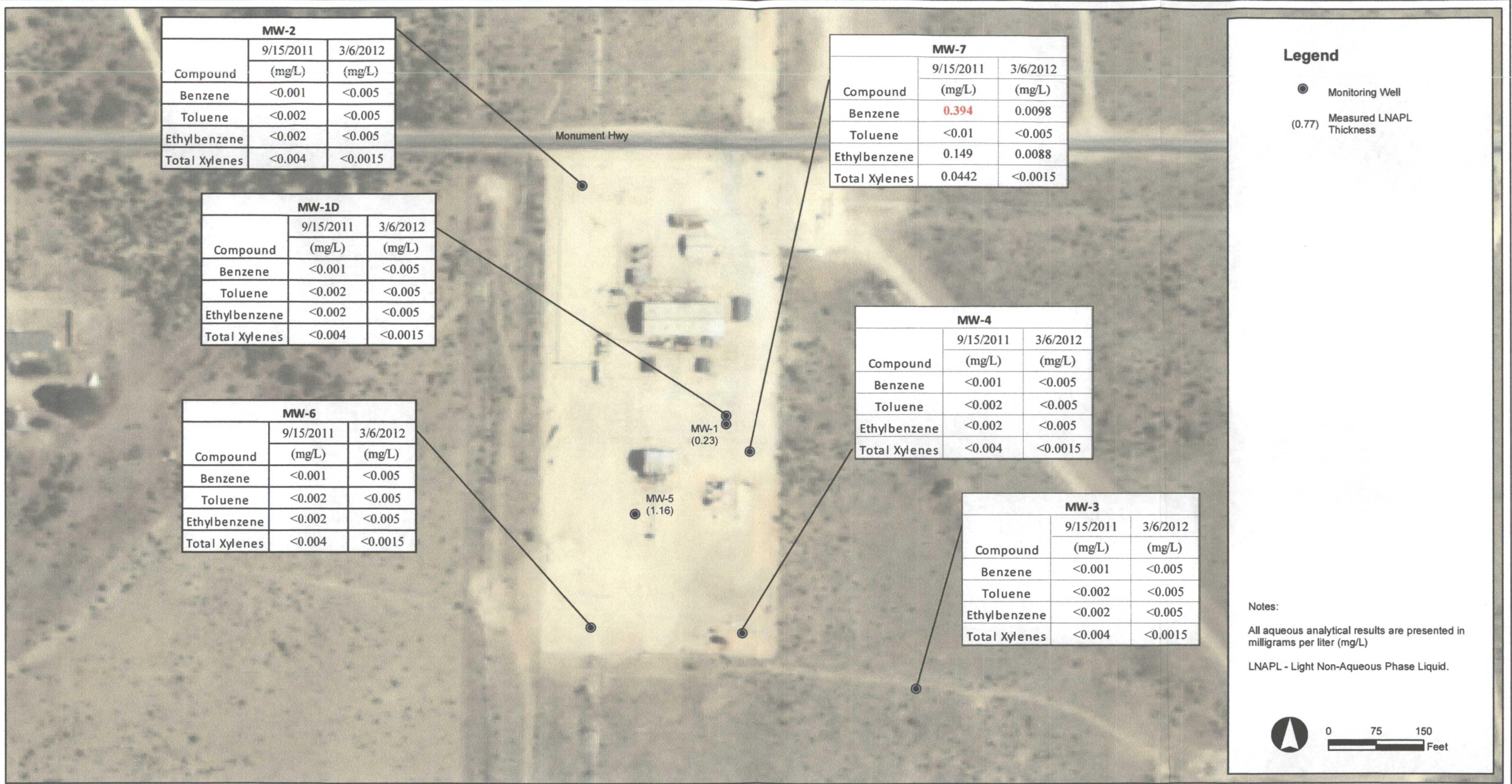
Tasman Geosciences, LLC
 5690 Webster St.
 Arvada, CO 8002
 720-988-2024

MONUMENT BOOSTER STATION

*First Half 2012 Groundwater Monitoring
 Summary Report*

GROUNDWATER ELEVATION
 CONTOUR MAP
 (MARCH 6, 2012)

FIGURE
 3



DESIGNED BY: C. Wasko

DRAWN BY: J. Clonts

SHEET CHK'D BY: _____

CROSS CHK'D BY: _____

APPROVED BY: _____

APPROVED BY: _____



Tasman Geosciences, LLC
5690 Webster St.
Arvada, CO 8002
720-988-2024

MONUMENT BOOSTER STATION
*First Half 2012 Groundwater Monitoring
Summary Report*

**ANALYTICAL RESULTS
MAP**

**FIGURE
4**

Appendix A
Laboratory Analytical Report



15-Mar-2012

Alyssa Beard
Tasman Geosciences
5690 Webster Street
Arvada, CO 80002

Tel: (720) 988-2024
Fax:

Re: DCP Monument Booster Station

Work Order: 1203261

Dear Alyssa,

ALS Environmental received 6 samples on 07-Mar-2012 09:25 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

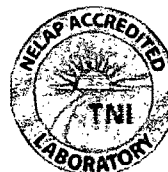
The total number of pages in this report is 15.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Electronically approved by: Yvan K. Ty

Nicole Brown
Senior Project Manager



Certificate No: T104704231-09A-TX

ADDRESS 10450 Standcliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

DOV#UUR X S#K VD /#R US#Sduw#t#k#h#DOV#Dierudwru|#U urxs#D#dp seha#Eurkhuv#Op Wng#Frp sdg|

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