1R - 441

Annual GW Mon. Report

Year: 2011

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April 3, 2012

Mr. Edward Hansen
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Legacy Reserves Operating, L.P., Monsanto '30' State #4
2010 and 2011 Summary of Groundwater Monitoring Results
NMOCD Reference 1RP-0441
Section 30, T16S, R37E
Latitude: 32° 53' 10.68" N and Longitude: 103° 17' 02.94" W
Landowner: State of New Mexico
Lea County, New Mexico

Dear Mr. Hansen:

Talon/LPE (Talon) was retained by Legacy Reserves Operating, L.P. (Legacy) to provide environmental consulting and groundwater remediation services regarding the Monsanto State #4 produced water release in Lea County, New Mexico.

The purpose of this report is to document groundwater monitoring activities that have occurred at the site from March of 2011 to December of 2011 and to outline a scope of work for proposed groundwater monitoring activities.

Background Information

The site is located in Lea County, New Mexico at Global Positioning System (GPS) coordinates N 32.88429° latitude and W 103.29166° longitude in Section 30, Township 16 South, Range 37 East. A Topographic Map is provided as Figure 1b. The following is a synopsis of the site history.

- In February of 2004 Safety and Environmental Solutions (SESI) conducted a site investigation regarding an unlined reserve pit at the subject site. The soil below the reserve pit was excavated to a depth of 15-feet below ground surface (bgs) to remove chloride impacted soil.
- In February of 2004, a borehole was advanced below the pit to a depth of 70-feet bgs and soil samples were collected at five (5) feet intervals. Analytical results exhibited chloride concentrations that ranged from 1,823 mg/Kg to 5,838 mg/Kg.
- In April of 2004, a 40 mil polyethylene liner was installed and the excavation was then backfilled with uncontaminated soil to prevent leaching from rainwater infiltration.
- From May of 2004 to April of 2006 seven (7), two (2) inch monitor wells were installed at various locations around the site to delineate the extent of the groundwater chloride plume.
- Groundwater monitoring commenced subsequent to the initial monitor well installations in May of 2004 and continued to September of 2010.

- A Stage 1 Abatement Plan was submitted in December of 2005 that was initially determined to be insufficient by the NMOCD but was approved in February of 2006 by the NMOCD.
- A revised Stage 1 Abatement Plan was submitted in April of 2006, which proposed additional groundwater monitoring was approved by the NMOCD.
- An Annual Groundwater Monitoring Report was submitted in March of 2011 documenting groundwater monitoring events that occurred in March, June, September of 2010 and March of 2011.
- Additional groundwater monitoring events have been performed in June, September and December of 2011 and March of 2012.
- In July of 2011, applications were submitted to the NMOSE and NMSLO for permits to install an additional monitor well. The applications are for Right-of-Entry (ROE), and for non-consumptive use of water. The purpose of the well is to acquire data from a pump test so that a remediation system can be designed. To date, the permits to install the well have not been issued.

Physical Characteristics of the First Water-Bearing Zone

The primary groundwater resource under the Southern High Plains, including the site, is referred to as the Ogallala Aquifer or High Plains Aquifer. The Southern portion of the Ogallala aquifer underlies an area of about 29,000 square miles (mi^2) in western Texas and eastern New Mexico, encompassing all or part of 31 counties in Texas and 6 counties in New Mexico.

The Ogallala Aquifer has experienced acute depletion from extensive irrigation and urban demand, which have exceeded the average annual recharge rate. Recharge of the Ogallala Aquifer on the Southern High Plains occurs predominately from rainfall runoff that accumulates in ephemeral streams and playa lakes as well as direct recharge in areas that contain permeable soils such as sand hills. Recharge rates vary depending on mechanism, but averages from 0 to 1.6 inches per year.

The Ogallala Aquifer is generally unconfined and the poteniometric surface generally mirrors the land surface elevation with the regional flow direction from the northwest to the southeast. The mean regional gradient is 15 feet per mile and the typical groundwater velocity averages seven inches per day. The regional hydraulic conductivity averages 17 gallons per day per square-foot and specific yield averages 16%. The depth to groundwater at the site has historically ranged from 64 to 72 feet below ground surface (bgs) and the groundwater flow direction is to the southeast at an average of 20 feet per mile.

The composition of Ogallala groundwater is defined as mixed-cation-HCO_3, therefore, Ogallala groundwater is considered hard. Problems with scale have occurred with residential and commercial water systems that use Ogallala groundwater and often treatment strategies are employed to reduce the effects of scale. The typical total dissolved solids of Ogallala groundwater in the Hobbs-Lovington area is generally less than 500 mg/L (ppm) in areas not impacted by oil-field brines with an average pH of 7.3.

Groundwater Gradient and Flow Direction

A total of four (4) groundwater monitoring events occurred during the year 2011 on March 11, June 10, and September 27 and December 21. Measurements to the depth of fluid were collected during each of the four (4) groundwater monitoring events. The results of the fluid level measurements are summarized in Table 1 in Appendix B.

The collected data was used to construct potentiometric surface maps in order to interpret the groundwater gradient and flow direction. The maps, designated Figures 2a through 2d, are presented in Appendix A.

The potentiometric surface maps indicate that the groundwater flow direction is to south southeast at an approximate gradient of 0.0044 feet/foot or 23.23 feet per mile, which is consistent for the area. Groundwater levels at the subject site have exhibited a steady decline of an average of 1.43 feet for the year 2011, which appears to be associated with a regional trend of declining groundwater levels for the Ogallala Aquifer.

Groundwater Analytical Results

During the first quarter, March 2011 sampling event, groundwater samples were collected from monitor wells MW-1 through MW-7. The groundwater samples that were collected exhibited the following analytical results:

- Total Cl concentrations ranged from 26.8 to 1,060 mg/L. The total Cl concentration exceeded the NMWQCC groundwater standard of 250 mg/L in the groundwater sample collected from monitor well MW-1.
- TDS concentrations ranged from 432 mg/L to 2,310 mg/L. The TDS concentration exceeded the NMWQCC groundwater standard of 1,000 mg/L in the groundwater sample collected from monitor wells MW-1.

During the second quarter, June 2011 sampling event, groundwater samples were collected from monitor wells MW-1 through MW-7. A groundwater sample was collected from MW-6 but the plastic sample container developed a leak during transit and was not analyzed. The groundwater samples that were collected exhibited the following analytical results:

- Total Cl concentrations ranged from 30.9 mg/L to 1,030 mg/L. The total Cl concentration exceeded the NMWQCC groundwater standard of 250 mg/L in the groundwater sample collected from monitor well MW-1.
- TDS concentrations ranged from 427 mg/L to 2,150 mg/L. The TDS concentration exceeded the NMWQCC groundwater standard of 1,000 mg/L in the groundwater sample collected from monitor well MW-1.

During the third quarter, September 2011 sampling event, groundwater samples were collected from monitor wells MW-1 through MW-7. The groundwater samples that were collected exhibited the following analytical results:

- Total Cl concentrations ranged from 24.8 mg/L to 970 mg/L. Total Cl concentrations exceeded the NMWQCC groundwater standard of 250 mg/L in the groundwater samples collected from monitor wells MW-1 and MW-7.
- TDS concentrations ranged from 314 mg/L to 2,280 mg/L. The TDS concentrations exceeded the NMWQCC groundwater standard of 1,000 mg/L in the groundwater sample collected from monitor well MW-1.

During the fourth quarter, December 2011 sampling event, groundwater samples were collected from monitor wells MW-1 through MW-7. The groundwater samples that were collected exhibited the following analytical results:

- Total Cl concentrations ranged from 21.6 mg/L to 959 mg/L. Total Cl concentrations exceeded the NMWQCC groundwater standard of 250 mg/L in the groundwater samples collected from monitor wells MW-1 and MW-7.
- TDS concentrations ranged from 374 mg/L to 2,312 mg/L. The TDS concentrations exceeded the NMWQCC groundwater standard of 1,000 mg/L in the groundwater sample collected from monitor well MW-1.

Monitor wells MW-1 and MW-7 have consistently exhibited total Cl and TDS concentrations exceeding the NMWQCC groundwater standards; however, down-gradient monitor wells MW-4, MW-5 and MW-6 have maintained relatively stable Cl and TDS concentrations. In addition, the chloride concentrations exhibited in monitor well MW-1 has been steadily declining over year 2011. This data indicates that the chloride plume is stable and does not appear to be migrating down-gradient. Currently, the groundwater chloride plume is delineated.

The results of the laboratory analyses are summarized in Table 2 – Summary of Groundwater Analytical Results in Appendix B. Laboratory analytical data reports and chain of custody documentation are provided in Appendix C. In addition, cumulative historical analytical data is located in the tables section on the CD that is an adjunct to this report.

Summary of Findings

- The groundwater flow direction is to southeast at an approximate gradient of 0.0044 feet/foot or 23.23 feet per mile.
- Groundwater levels at the subject site have exhibited a steady decline for the year 2011 that appears to be associated with a regional trend of declining groundwater levels for the Ogallala Aquifer.
- The chloride plume is currently delineated by the existing monitor well array.
- Based on declining chloride concentrations in monitor well MW-1, it appears that brine water influx at the source may be mitigated and that the chloride plume may be undergoing dilution as a result of dispersion.

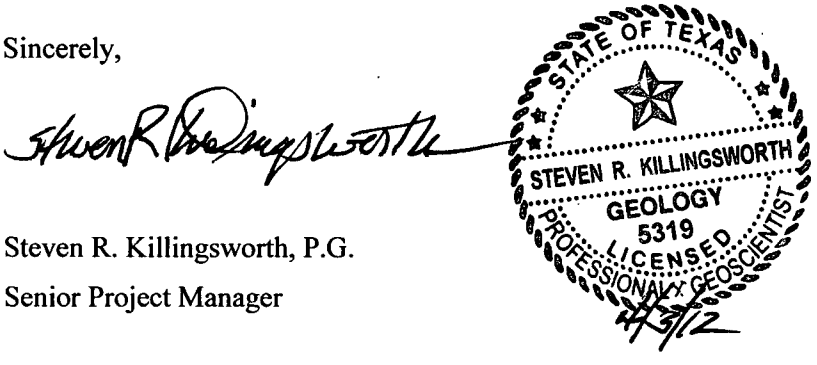
Recommendations

Based upon the results of the four (4) groundwater monitoring events performed in 2011, Talon proposes the following actions:

- Continue to perform quarterly groundwater monitoring events in accordance with NMOCD directives.
- Install one (1) four (4) inch recovery well near the center of the chloride plume and perform a pump test to acquire data for a remediation system design.
- Survey the top of casing elevations for monitor well MW-5, MW-6, and MW-7.
- Prepare a remediation plan designed to pump and dispose of impacted groundwater and to inhibit migration of the chloride plume based on the results of the pump test.

If you have any questions or require further information, please contact Mr. Kyle Waggoner or me at (432) 522-2133.

Sincerely,



Steven R. Killingsworth, P.G.
Senior Project Manager

Cc: Mr. Berry Johnson, Legacy Reserves Operating, L.P.
Mr. Geoffrey R. Leking, NMOCD

Appendices:

Appendix A ..... Figures

Appendix B ..... Tables

Appendix C ..... Laboratory Analytical Data Reports and Chain of Custody Documentation

Appendix A

Figures

Figure 1b – Site Vicinity Topographic Map

Figure 1 – Site Map

Figure 2a – Groundwater Gradient Map – 3/10/2011

Figure 2b - Groundwater Gradient Map - 6/10/2011

Figure 2c - Groundwater Gradient Map - 9/27/2011

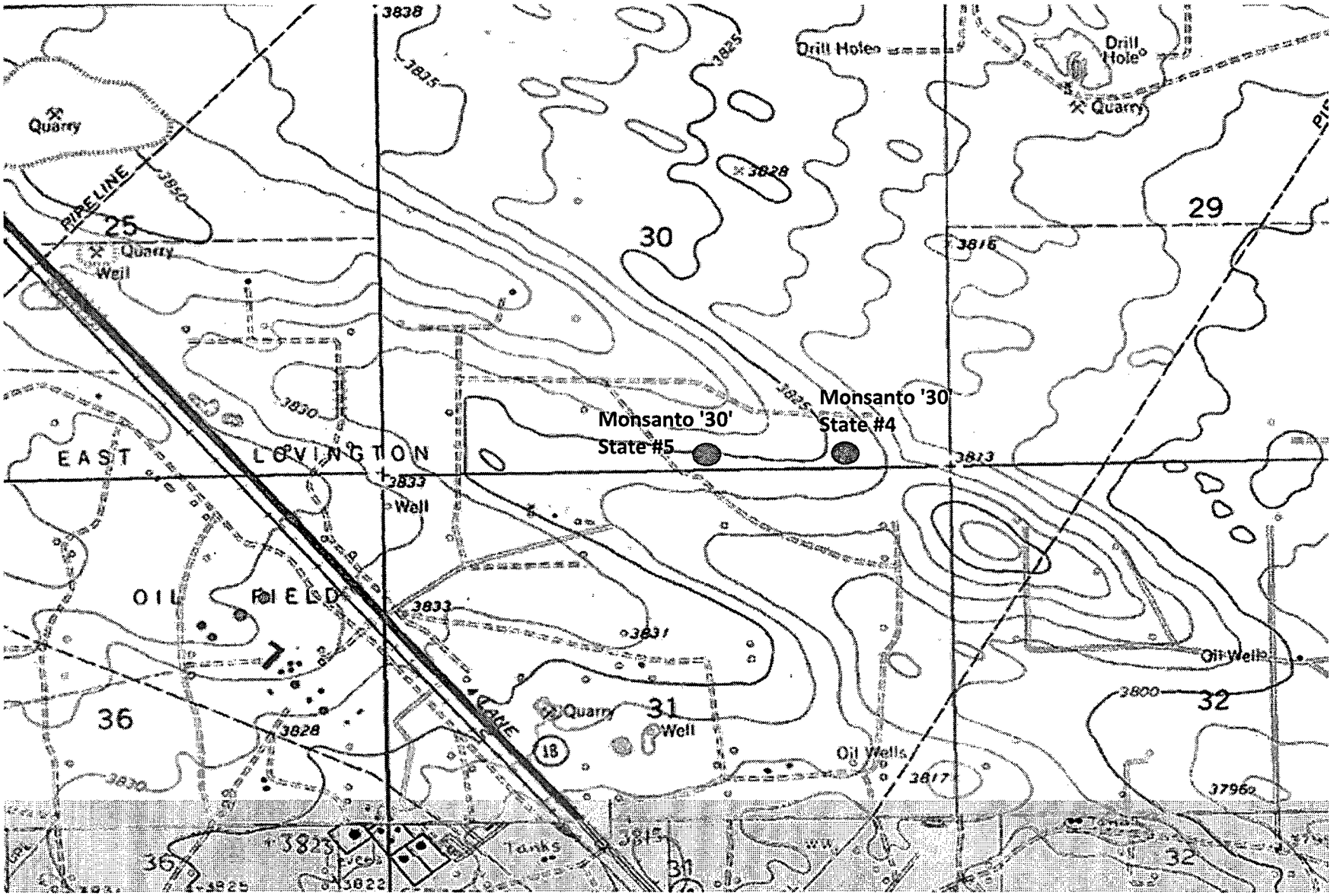
Figure 2d - Groundwater Gradient Map - 12/21/2011

Figure 3a - Groundwater Chloride Concentration Map - 3/10/2011

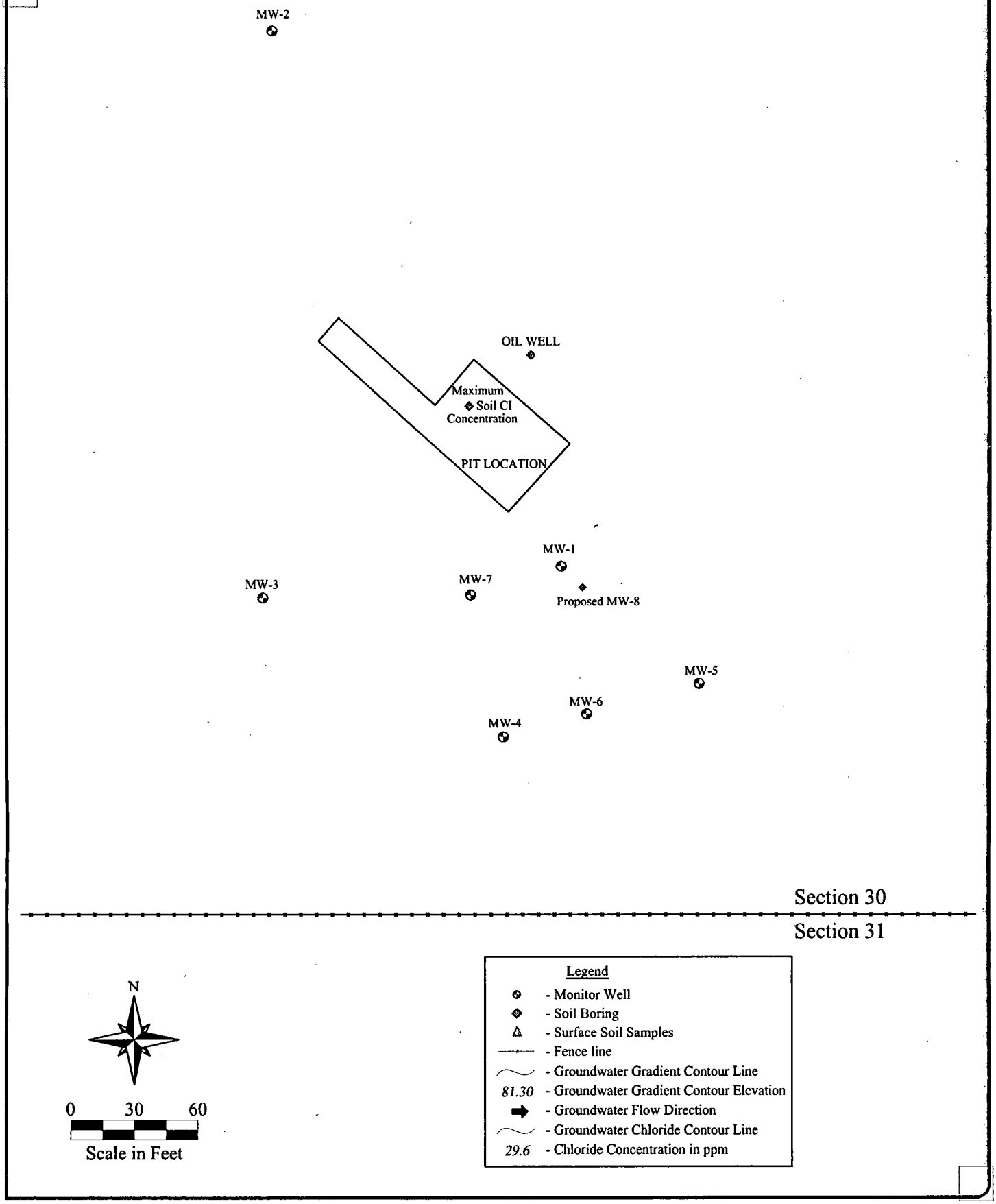
Figure 3b - Groundwater Chloride Concentration Map - 6/10/2011

Figure 3c - Groundwater Chloride Concentration Map - 9/27/2011

Figure 3d - Groundwater Chloride Concentration Map - 12/21/2011



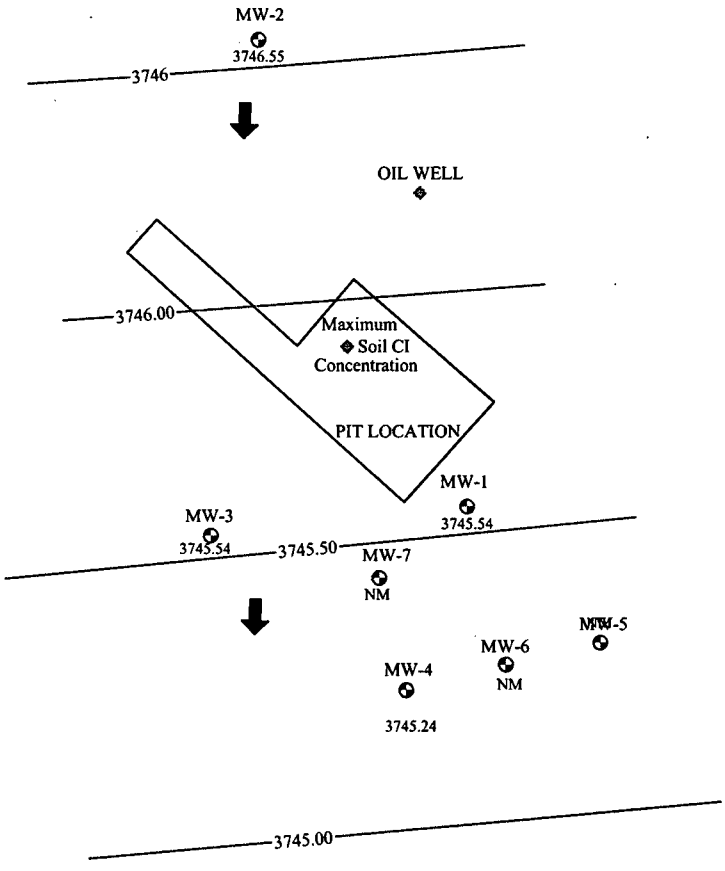
TALON LPE	**Figure 1b - Topographic Map** **Monsanto '30' State #4 & #5** **Date: March 9, 2011** **Prepared by: S. R. Killingsworth, PG**	**Legacy Reserves Operating, LP** **303 W. Wall, Suite 1600** **Midland, Texas 79702** **Not to scale**



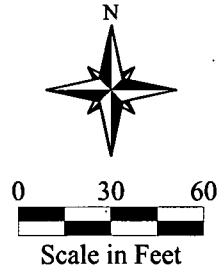
TALON LPE

Date: 10/21/2011
Scale: 1" = 60'
Drawn By: TJS

Monsanto '30' State #4
Legacy Reserves Operating, L.P.
Hobbs, Lea County, New Mexico
Figure 1 - Site Plan



Gradient
0.0041 ft/ft
21.62 ft/mi



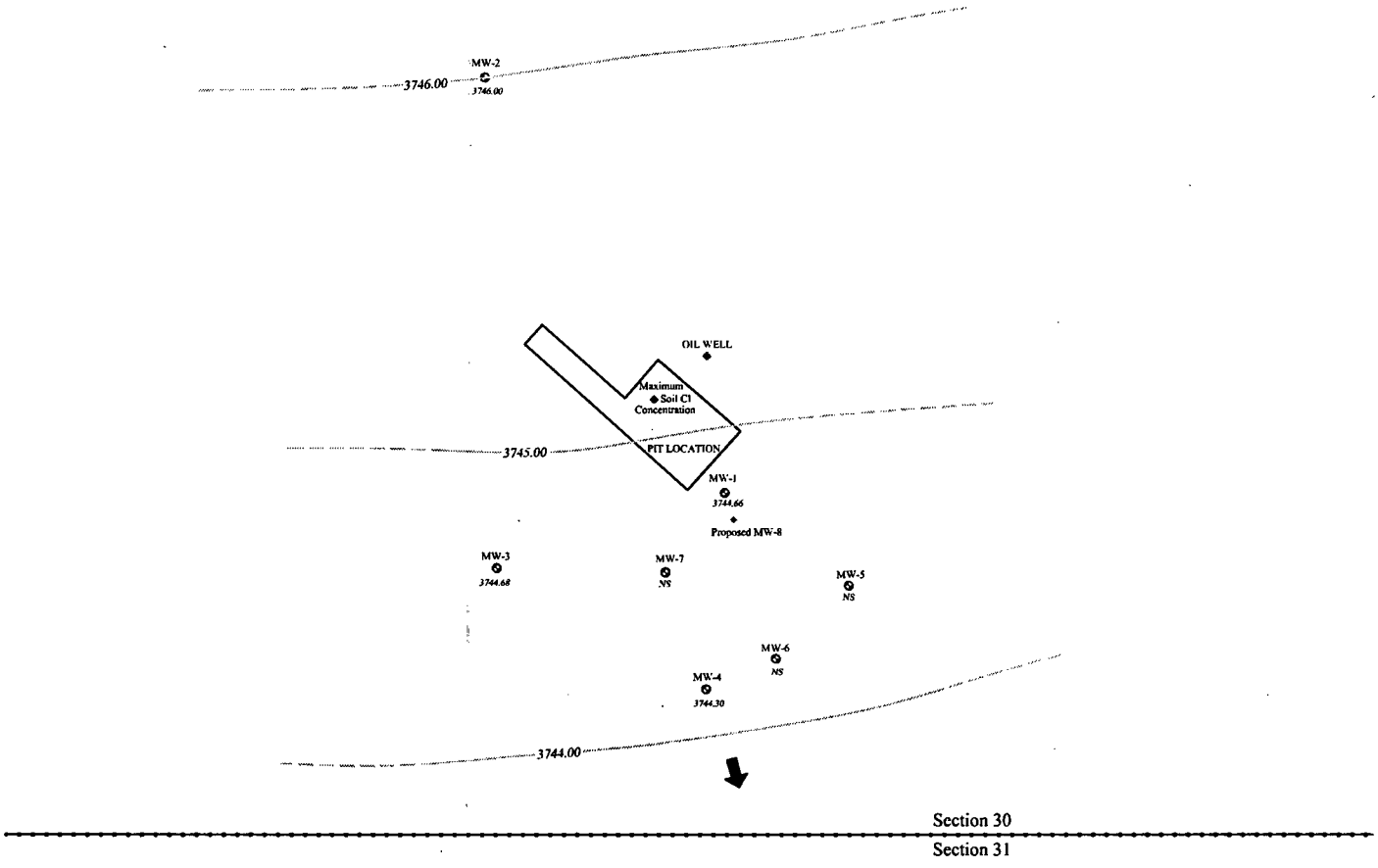
Legend

- Monitor Well
- Soil Boring
- Surface Soil Samples
- Groundwater Gradient Contour Line
- *81.30* - Groundwater Gradient Contour Elevation
- Groundwater Flow Direction
- Groundwater Chloride Contour Line
- *29.6* - Chloride Concentration in ppm

TALON LPE

Date: 03/28/2011
Scale: 1" = 60'
Drawn By: TJS

Monsanto '30' State #4
Legacy Reserves Operating, L.P.
Hobbs, Lea County, New Mexico
Figure 2a - Groundwater Gradient Map, (03/10/2011)



Gradient
0.0048 ft/ft
25.21 ft/mi

N

0 50 100

Scale in Feet

Legend

- Monitor Well
- Soil Boring
- Surface Soil Samples
- Fence line
- Groundwater Gradient Contour Line
- *81.30* - Groundwater Gradient Contour Elevation
- Groundwater Flow Direction
- Groundwater Chloride Contour Line
- *29.6* - Chloride Concentration in ppm

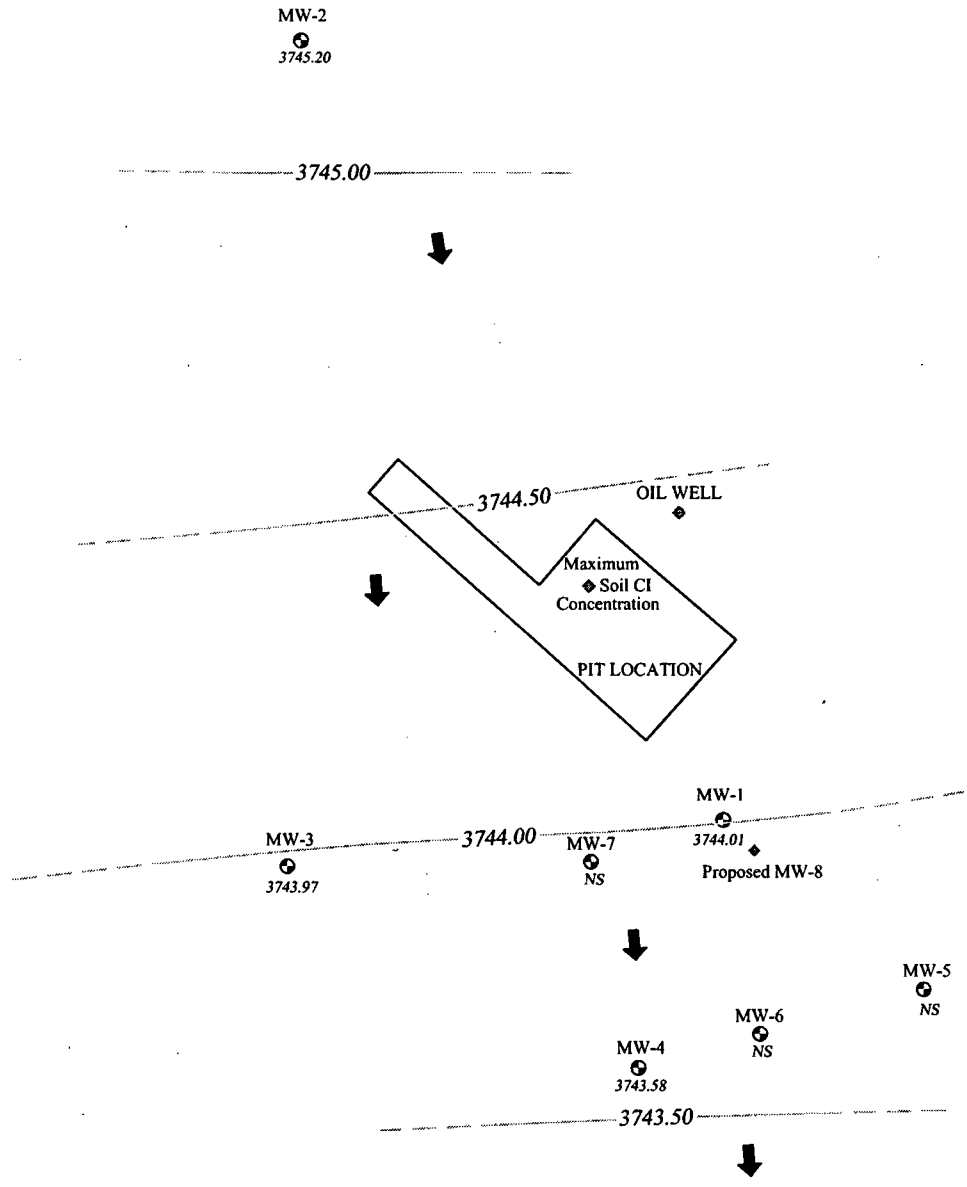
TALON LPE

Date: 06/24/2011
Scale: 1" = 100'
Drawn By: TJS

Monsanto '30' State #4

Legacy Reserves Operating, L.P.
Hobbs, Lea County, New Mexico

Figure 2b - Groundwater Gradient Map, (06/10/2011)



Section 30

Section 31

N

0 30 60

Scale in Feet

Legend

- Monitor Well
- Soil Boring
- Surface Soil Samples
- Fence line
- Groundwater Gradient Contour Line
- 81.30 - Groundwater Gradient Contour Elevation
- Groundwater Flow Direction
- Groundwater Chloride Contour Line
- 29.6 - Chloride Concentration in ppm

TALON LPE

Date: 10/24/2011

Scale: 1" = 60'

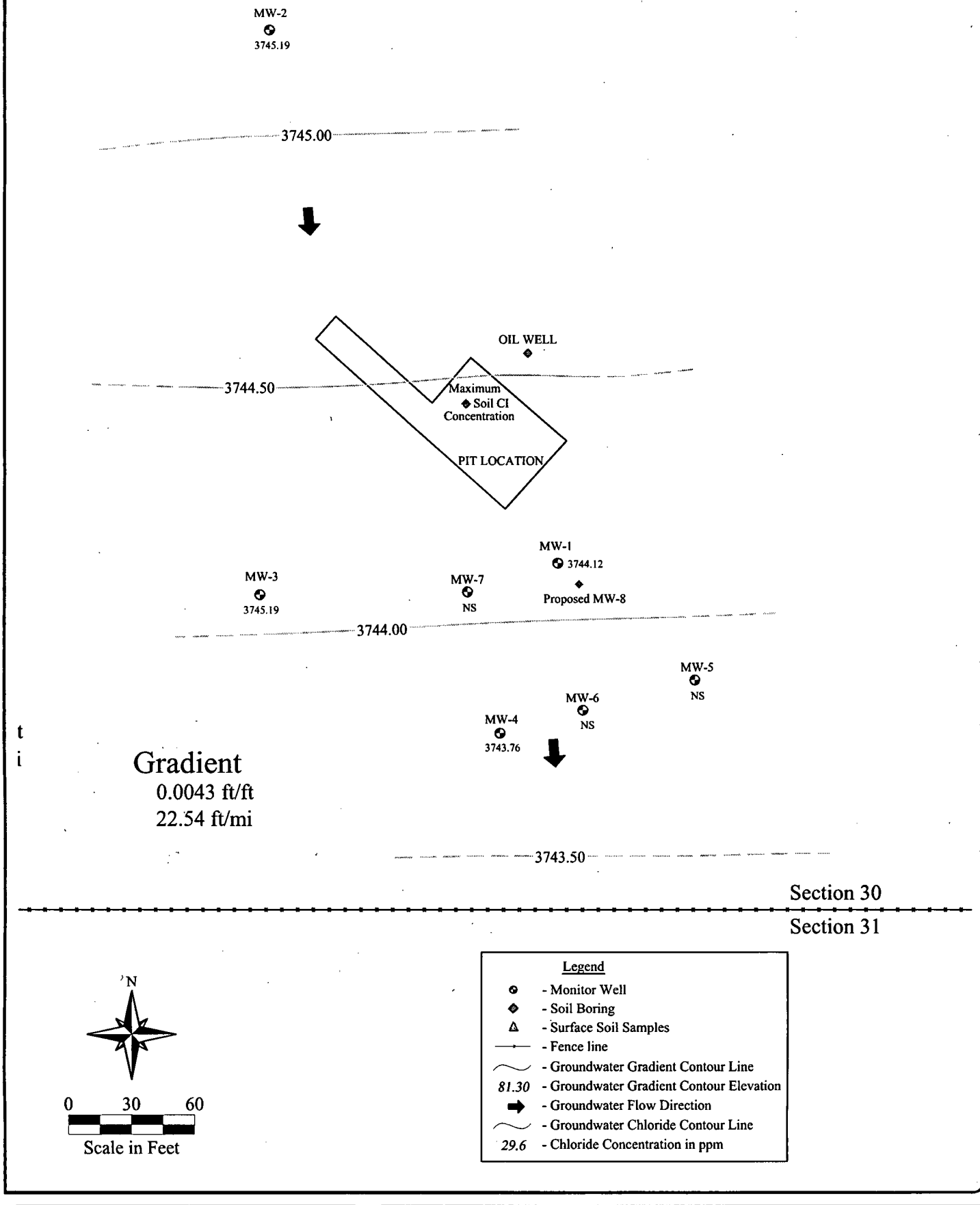
Drawn By: TJS

Monsanto '30' State #4

Legacy Reserves Operating, L.P.

Hobbs, Lea County, New Mexico

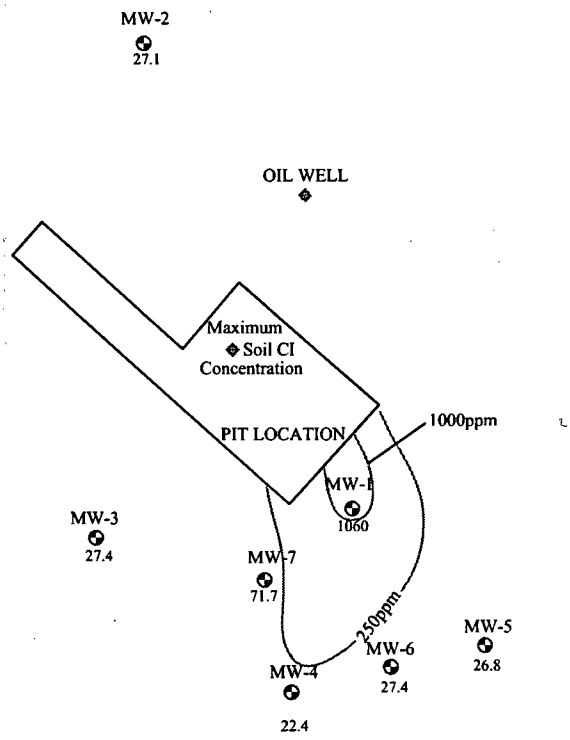
Figure 2c - Groundwater Gradient Map, (09/27/2011)



TALON LPE

Date: 01/03/2012
Scale: 1" = 60'
Drawn By: TJS

Monsanto '30' State #4
Legacy Reserves Operating, L.P.
Hobbs, Lea County, New Mexico
Figure 2d - Groundwater Gradient Map, (12/21/2011)



N

0 30 60

Scale in Feet

Legend

- Monitor Well
- Soil Boring
- Surface Soil Samples
- Groundwater Gradient Contour Line
- *81.30* - Groundwater Gradient Contour Elevation
- Groundwater Flow Direction
- Groundwater Chloride Contour Line
- *29.6* - Chloride Concentration in ppm

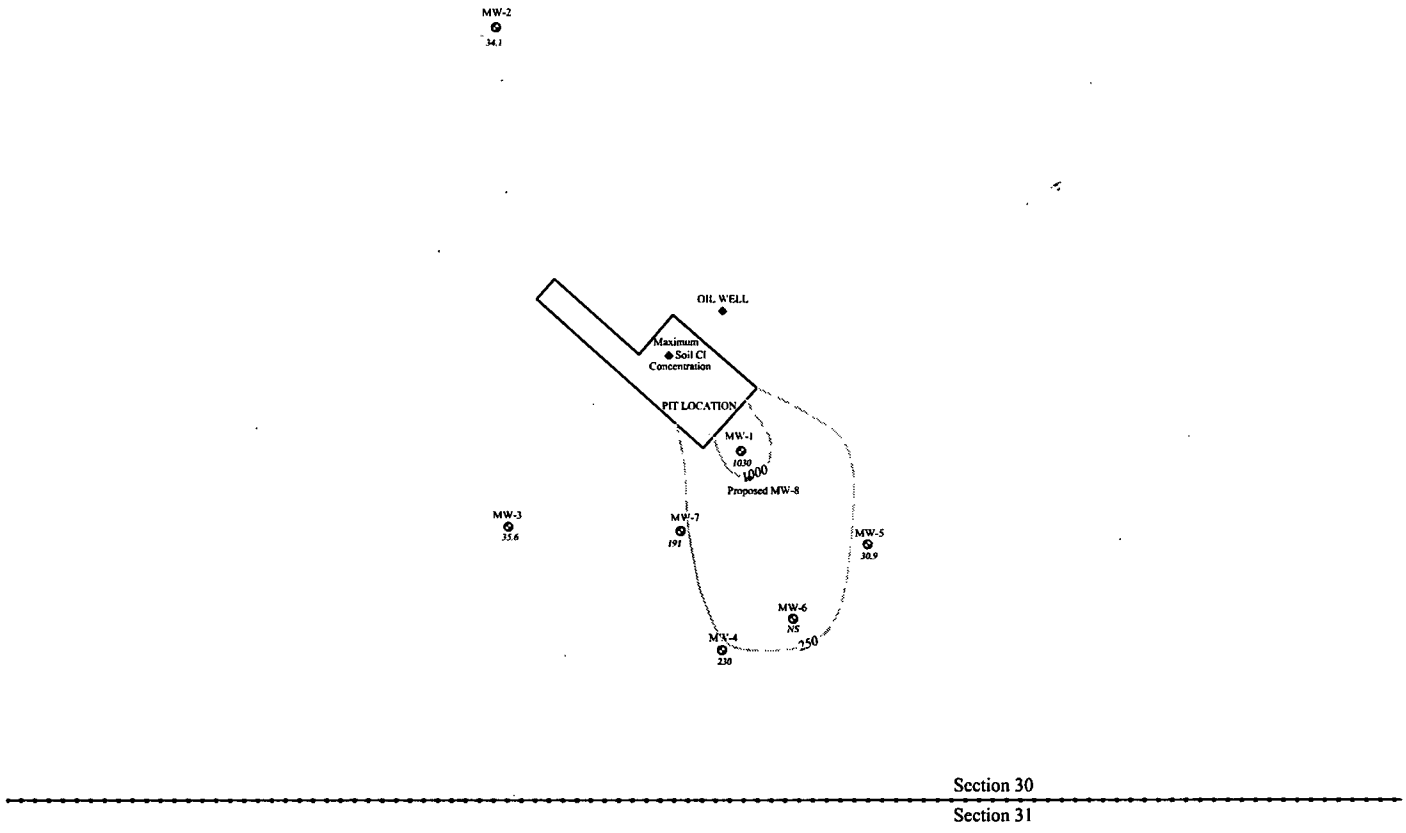
TALON LPE

Date: 03/28/2011

Scale: 1" = 60'

Drawn By: TJS

Monsanto '30' State #4
Legacy Reserves Operating, L.P.
Hobbs, Lea County, New Mexico
Figure 3a - Groundwater Chloride Distribution Map, (03/10/2011)



N

0 50 100

Scale in Feet

Legend

- Monitor Well
- Soil Boring
- Surface Soil Samples
- Fence line
- Groundwater Gradient Contour Line
- *81.30* - Groundwater Gradient Contour Elevation
- Groundwater Flow Direction
- Groundwater Chloride Contour Line
- *29.6* - Chloride Concentration in ppm

TALON LPE

Date: 06/24/2011

Scale: 1" = 100'

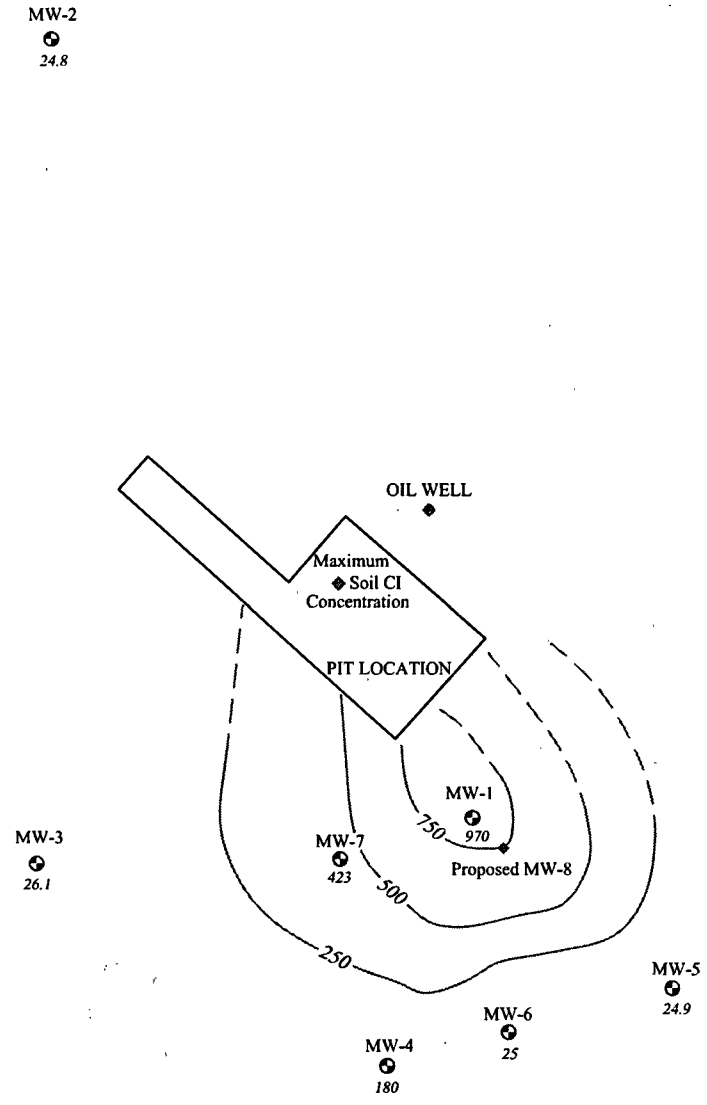
Drawn By: TJS

Monsanto '30' State #4

Legacy Reserves Operating, L.P.

Hobbs, Lea County, New Mexico

Figure 3b - Chloride Distribution Map, (06/10/2011)



Section 30

Section 31

N

0 30 60

Scale in Feet

Legend

- Monitor Well
- Soil Boring
- Surface Soil Samples
- Fence line
- Groundwater Gradient Contour Line
- 81.30 - Groundwater Gradient Contour Elevation
- Groundwater Flow Direction
- Groundwater Chloride Contour Line
- 29.6 - Chloride Concentration in ppm

TALON LPE

Date: 10/24/2011

Scale: 1" = 60'

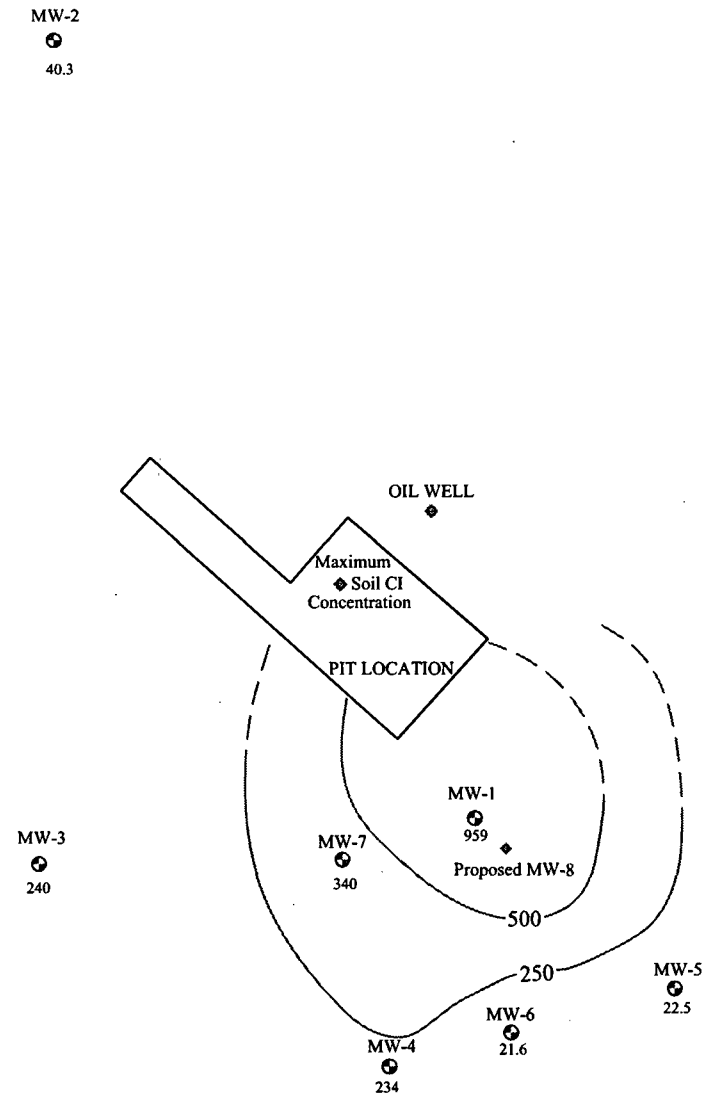
Drawn By: TJS

Monsanto '30' State #4

Legacy Reserves Operating, L.P.

Hobbs, Lea County, New Mexico

Figure 3c - Groundwater Chloride Distribution Map, (09/27/2011)



Section 30

Section 31

N

0 30 60

Scale in Feet

Legend

- Monitor Well
- Soil Boring
- Surface Soil Samples
- Fence line
- Groundwater Gradient Contour Line
- *81.30* - Groundwater Gradient Contour Elevation
- Groundwater Flow Direction
- Groundwater Chloride Contour Line
- *29.6* - Chloride Concentration in ppm

TALON LPE

Date: 01/03/2012

Scale: 1" = 60'

Drawn By: TJS

Monsanto '30' State #4

Legacy Reserves Operating, L.P.

Hobbs, Lea County, New Mexico

Figure 3d - Groundwater Chloride Distribution Map, (12/21/2011)

Appendix B

Tables

Table 1 - Summary of Fluid Level Measurements

Table 2 - Groundwater Analytical Results

TABLE 1
SUMMARY OF FLUID LEVEL MEASUREMENTS
LEGACY RESERVES OPERATING, L.P.
MONSANTO '30' STATE #4
NMOCD REF. # 1R-0441
LEA COUNTY, NEW MEXICO
TALON/LPE PROJECT NUMBER 701047.014.01

Monitor Well	Date Gauged	Relative Top of Casing Elevation (ft amsl)	Depth to Water Below Top of Casing (ft btoc)	Groundwater Elevation (ft amsl)
MW-1	03/31/10	3,838.24	92.34	3,745.90
MW-1	06/09/10		92.47	3,745.77
MW-1	09/16/10		93.30	3,744.94
MW-1	03/10/11		92.70	3,745.54
MW-1	06/10/11		93.58	3,744.66
MW-1	09/27/11		94.23	3,744.01
MW-1	12/21/11		94.12	3,744.12
MW-2	03/31/10	3,836.31	89.22	3,747.09
MW-2	06/09/10		89.34	3,746.97
MW-2	09/16/10		90.31	3,746.00
MW-2	03/10/11		89.76	3,746.55
MW-2	06/10/11		90.31	3,746.00
MW-2	09/27/11		91.11	3,745.20
MW-2	12/21/11		91.12	3,745.19
MW-3	03/31/10	3,842.49	96.56	3,745.93
MW-3	06/09/10		96.74	3,745.75
MW-3	09/16/10		97.63	3,744.86
MW-3	03/10/11		96.95	3,745.54
MW-3	06/10/11		97.81	3,744.68
MW-3	09/27/11		98.52	3,743.97
MW-3	12/21/11		98.41	3,744.08
MW-4	03/31/10	3,840.95	95.34	3,745.61
MW-4	06/09/10		95.59	3,745.36
MW-4	09/16/10		96.34	3,744.61
MW-4	03/10/11		95.71	3,745.24
MW-4	06/10/11		96.65	3,744.30
MW-4	09/27/11		97.37	3,743.58
MW-4	12/21/11		97.19	3,743.76

TABLE 1
SUMMARY OF FLUID LEVEL MEASUREMENTS
LEGACY RESERVES OPERATING, L.P.
MONSANTO '30' STATE #4
NMOCD REF. # 1R-0441
LEA COUNTY, NEW MEXICO
TALON/LPE PROJECT NUMBER 701047.014.01

Monitor Well	Date Gauged	Relative Top of Casing Elevation (ft amsl)	Depth to Water Below Top of Casing (ft btoc)	Groundwater Elevation (ft amsl)
MW-5	03/31/10	NM	92.33	
MW-5	06/09/10		92.54	
MW-5	09/16/10		93.52	
MW-5	03/10/11		92.80	
MW-5	06/10/11		93.61	
MW-5	09/27/11		94.36	
MW-5	12/21/11		94.18	
MW-6	03/31/10	NM	96.74	
MW-6	06/09/10		93.96	
MW-6	09/16/10		94.74	
MW-6	03/10/11		94.18	
MW-6	06/10/11		95.04	
MW-6	09/27/11		95.76	
MW-6	12/21/11		95.59	
MW-7	03/31/10	NM	93.95	
MW-7	06/09/10		94.10	
MW-7	09/16/10		94.97	
MW-7	03/10/11		94.33	
MW-7	06/10/11		95.21	
MW-7	09/27/11		95.94	
MW-7	12/21/11		95.80	

amsl = above mean sea level
btoc = below top of casing

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
LEGACY RESERVES OPERATING, L.P.
MONSANTO '30' STATE #4
NMOCD REF. # 1R-0441
LEA COUNTY, NEW MEXICO
Talon/LPE Project Number 701047.014.01

All concentrations are in mg/L

Sample Location	Sample Date	Chloride	TDS
MW-1	03/31/10	**1,160**	**2,330**
MW-1	06/09/10	**1,430**	**2,730**
MW-1	09/16/10	**1,200**	**2,500**
MW-1	03/11/11	**1,060**	**2,310**
MW-1	06/10/11	**1,030**	**2,150**
MW-1	09/27/11	**970**	**2,280**
MW-1	12/21/11	**959**	**2,312**
MW-2	03/31/10	28.1	494
MW-2	06/09/10	30.7	461
MW-2	09/16/10	25.9	423
MW-2	03/11/11	27.1	526
MW-2	06/10/11	34.1	470
MW-2	09/27/11	24.8	428
MW-2	12/21/11	40.3	374
MW-3	03/31/10	30.3	361
MW-3	06/09/10	30.8	388
MW-3	09/16/10	25.9	393
MW-3	03/11/11	27.4	432
MW-3	06/10/11	35.6	427
MW-3	09/27/11	26.1	314
MW-3	12/21/11	24.0	403
MW-4	03/31/10	107	587
MW-4	06/09/10	145	620
MW-4	09/16/10	74.1	546
MW-4	03/11/11	224.0	695
MW-4	06/10/11	230.0	752
MW-4	09/27/11	180.0	664
MW-4	12/21/11	234.0	766

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
LEGACY RESERVES OPERATING, L.P.
MONSANTO '30' STATE #4
NMOCD REF. # 1R-0441
LEA COUNTY, NEW MEXICO
Talon/LPE Project Number 701047.014.01

All concentrations are in mg/L

Sample Location	Sample Date	Chloride	TDS
MW-5	03/31/10	28.5	447
MW-5	06/09/10	31.5	456
MW-5	09/16/10	26.8	396
MW-5	03/11/11	26.8	436
MW-5	06/10/11	30.9	447
MW-5	09/27/11	24.9	407
MW-5	12/21/11	22.5	505
MW-6	03/31/10	29.6	414
MW-6	06/09/10	32.0	483
MW-6	09/16/10	28.6	401
MW-6	03/11/11	27.4	442
MW-6	06/10/11	NS	NS
MW-6	09/27/11	25.0	405
MW-6	12/21/11	21.6	570
MW-7	03/31/10	118	96
MW-7	06/09/10	**314**	788
MW-7	09/16/10	**314**	896
MW-7	03/11/11	71.1	539
MW-7	06/10/11	191	594
MW-7	09/27/11	**423**	968
MW-7	12/21/11	**340**	994
NMWQCC Remedial Limits		250	1,000

Bolded *values are in excess of the NMWQCC Remediation Thresholds*
Total chlorides analyzed byEPA Method E300.0
TDS analyzed by SM 2540C
NS - not sampled

Appendix C

Laboratory Analytical Data Reports and Chain of Custody Documentation

Summary Report

Steve Killingsworth
Talon LPE-Midland
2901 State Highway 349
Midland, TX 79706

Report Date: March 22, 2011

Work Order: 11031133

Project Location: Hobbs, NM
Project Name: Monsanto #4
Project Number: 701047.014.01

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
260360	MW-1	water	2011-03-11	10:45	2011-03-11
260361	MW-2	water	2011-03-11	11:15	2011-03-11
260362	MW-3	water	2011-03-11	11:10	2011-03-11
260363	MW-4	water	2011-03-11	10:52	2011-03-11
260364	MW-5	water	2011-03-11	11:03	2011-03-11
260365	MW-6	water	2011-03-11	10:40	2011-03-11
260366	MW-7	water	2011-03-11	10:58	2011-03-11

Sample: 260360 - MW-1

Param	Flag	Result	Units	RL
Chloride		**1060**	mg/L	2.50
Total Dissolved Solids		**2310**	mg/L	10.0

Sample: 260361 - MW-2

Param	Flag	Result	Units	RL
Chloride		**27.1**	mg/L	2.50
Total Dissolved Solids		**526**	mg/L	10.0

Sample: 260362 - MW-3

continued ...

sample 260362 continued ...

Param	Flag	Result	Units	RL

Param	Flag	Result	Units	RL
Chloride		**27.4**	mg/L	2.50
Total Dissolved Solids		**432**	mg/L	10.0

Sample: 260363 - MW-4

Param	Flag	Result	Units	RL
Chloride		**224**	mg/L	2.50
Total Dissolved Solids		**695**	mg/L	10.0

Sample: 260364 - MW-5

Param	Flag	Result	Units	RL
Chloride		**26.8**	mg/L	2.50
Total Dissolved Solids		**436**	mg/L	10.0

Sample: 260365 - MW-6

Param	Flag	Result	Units	RL
Chloride		**27.4**	mg/L	2.50
Total Dissolved Solids		**442**	mg/L	10.0

Sample: 260366 - MW-7

Param	Flag	Result	Units	RL
Chloride		**71.7**	mg/L	2.50
Total Dissolved Solids		**539**	mg/L	10.0

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E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX LELAP-02003 Kansas E-10317 **El Paso:** T104704221-08-TX LELAP-02002 **Midland:** T104704392-08-TX

Analytical and Quality Control Report

Steve Killingsworth
Talon LPE-Midland
2901 State Highway 349
Midland, TX, 79706

Report Date: March 22, 2011

Work Order: 11031133

Project Location: Hobbs, NM
Project Name: Monsanto #4
Project Number: 701047.014.01

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
260360	MW-1	water	2011-03-11	10:45	2011-03-11
260361	MW-2	water	2011-03-11	11:15	2011-03-11
260362	MW-3	water	2011-03-11	11:10	2011-03-11
260363	MW-4	water	2011-03-11	10:52	2011-03-11
260364	MW-5	water	2011-03-11	11:03	2011-03-11
260365	MW-6	water	2011-03-11	10:40	2011-03-11
260366	MW-7	water	2011-03-11	10:58	2011-03-11

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 9 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Monsanto #4 were received by TraceAnalysis, Inc. on 2011-03-11 and assigned to work order 11031133. Samples for work order 11031133 were received intact at a temperature of 3.6 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	67337	2011-03-15 at 13:36	79419	2011-03-16 at 11:05
TDS	SM 2540C	67335	2011-03-15 at 13:34	79592	2011-03-21 at 14:17

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11031133 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 260360 - MW-1

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	79419	Date Analyzed:	2011-03-16	Analyzed By:	AR
Prep Batch:	67337	Sample Preparation:	2011-03-15	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**1060**		mg/L	50	2.50

Sample: 260360 - MW-1

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	79592	Date Analyzed:	2011-03-21	Analyzed By:	AR
Prep Batch:	67335	Sample Preparation:	2011-03-15	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		**2310**		mg/L	2	10.0

Sample: 260361 - MW-2

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	79419	Date Analyzed:	2011-03-16	Analyzed By:	AR
Prep Batch:	67337	Sample Preparation:	2011-03-15	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**27.1**		mg/L	5	2.50

Sample: 260361 - MW-2

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	79592	Date Analyzed:	2011-03-21	Analyzed By:	AR
Prep Batch:	67335	Sample Preparation:	2011-03-15	Prepared By:	AR

continued ...

sample 260361 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**526**	mg/L	1	10.0

Sample: 260362 - MW-3

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	79419	Date Analyzed:	2011-03-16	Analyzed By:	AR
Prep Batch:	67337	Sample Preparation:	2011-03-15	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**27.4**	mg/L	5	2.50

Sample: 260362 - MW-3

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	79592	Date Analyzed:	2011-03-21	Analyzed By:	AR
Prep Batch:	67335	Sample Preparation:	2011-03-15	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**432**	mg/L	1	10.0

Sample: 260363 - MW-4

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	79419	Date Analyzed:	2011-03-16	Analyzed By:	AR
Prep Batch:	67337	Sample Preparation:	2011-03-15	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		224	mg/L	5	2.50

Sample: 260363 - MW-4

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	79592	Date Analyzed:	2011-03-21	Analyzed By:	AR
Prep Batch:	67335	Sample Preparation:	2011-03-15	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		**695**		mg/L	1	10.0

Sample: 260364 - MW-5

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	79419	Date Analyzed:	2011-03-16	Analyzed By:	AR
Prep Batch:	67337	Sample Preparation:	2011-03-15	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**26.8**		mg/L	5	2.50

Sample: 260364 - MW-5

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	79592	Date Analyzed:	2011-03-21	Analyzed By:	AR
Prep Batch:	67335	Sample Preparation:	2011-03-15	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Dissolved Solids		**436**		mg/L	1	10.0

Sample: 260365 - MW-6

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	79419	Date Analyzed:	2011-03-16	Analyzed By:	AR
Prep Batch:	67337	Sample Preparation:	2011-03-15	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**27.4**		mg/L	5	2.50

Sample: 260365 - MW-6

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	79592	Date Analyzed:	2011-03-21	Analyzed By:	AR
Prep Batch:	67335	Sample Preparation:	2011-03-15	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Total Dissolved Solids		**442**	mg/L	1	10.0

Sample: 260366 - MW-7

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	79419	Date Analyzed:	2011-03-16	Analyzed By:	AR
Prep Batch:	67337	Sample Preparation:	2011-03-15	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**71.7**	mg/L	5	2.50

Sample: 260366 - MW-7

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	79592	Date Analyzed:	2011-03-21	Analyzed By:	AR
Prep Batch:	67335	Sample Preparation:	2011-03-15	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Total Dissolved Solids		**539**	mg/L	1	10.0

Method Blank (1) QC Batch: 79419

QC Batch:	79419	Date Analyzed:	2011-03-16	Analyzed By:	AR
Prep Batch:	67337	QC Preparation:	2011-03-15	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		0.699	mg/L	2.5

Method Blank (1) QC Batch: 79592

QC Batch: 79592 | Date Analyzed: 2011-03-21 | Analyzed By: AR
Prep Batch: 67335 | QC Preparation: 2011-03-15 | Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Total Dissolved Solids		12.0	mg/L	10

Duplicates (1) Duplicated Sample: 260366

QC Batch: 79592 | Date Analyzed: 2011-03-21 | Analyzed By: AR
Prep Batch: 67335 | QC Preparation: 2011-03-15 | Prepared By: AR

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	525	539	mg/L	1	3	10

Laboratory Control Spike (LCS-1)

QC Batch: 79419 | Date Analyzed: 2011-03-16 | Analyzed By: AR
Prep Batch: 67337 | QC Preparation: 2011-03-15 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	22.7	mg/L	1	25.0	<0.265	91	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	23.7	mg/L	1	25.0	<0.265	95	90 - 110	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 79592 | Date Analyzed: 2011-03-21 | Analyzed By: AR
Prep Batch: 67335 | QC Preparation: 2011-03-15 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids	1030	mg/L	1	1000	<9.75	103	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids	1070	mg/L	1	1000	<9.75	107	90 - 110	4	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 260366

QC Batch: 79419 | Date Analyzed: 2011-03-16 | Analyzed By: AR
Prep Batch: 67337 | QC Preparation: 2011-03-15 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	2360	mg/L	50	1380	1060	94	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	2360	mg/L	50	1380	1060	94	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 79419 | Date Analyzed: 2011-03-16 | Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	25.0	24.3	97	90 - 110	2011-03-16

Standard (CCV-1)

QC Batch: 79419 | Date Analyzed: 2011-03-16 | Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	25.0	23.9	96	90 - 110	2011-03-16

LAB Order ID # 11031133

Page 1 of 1

TraceAnalysis, Inc.

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BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name: Talon LPE
Phone #: 806-467-0467
Address: (Street, City, Zip) 3901 State Hwy 349
Fax #:
Contact Person: Skillingsworth@talonlpe.com
E-mail: Skillingsworth@talonlpe.com
Invoice to: (If different from above)
Project #: 701042.014.01
Project Name: MonSanto #4
Project Location (including state): Hobbs, NM
Sampler Signature:

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
260360	MW-1	1	50ml	X								X		3-11-11	1045
361	MW-2														1115
362	MW-3														1110
363	MW-4														1052
364	MW-5														1103
365	MW-6														1040
366	MW-7														1058

ANALYSIS REQUEST	
MTBE 8021 / 602 / 8260 / 624	
BTEX 8021 / 602 / 8260 / 624	
TPH 418.1 / TX1005 / TX1005 Ext(C35)	
TPH 8015 GRO / DRO / TVHC	
PAH 8270 / 625	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
TCLP Pesticides	
RCI	
GC/MS Vol. 8260 / 624	
GC/MS Semi. Vol. 8270 / 625	
PCB's 8082 / 608	
Pesticides 8081 / 608	
BOD, TSS, pH	
Moisture Content	
Cl, Fl, SO4, NO3, NO2, Alkalinity	
Na, Ca, Mg, K, TDS, EC	TDS
	300.0 Total Chlorides
Turn Around Time if different from standard	
Hold	

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
	Talon LPE	3-11-11	1400		Trace	3/11/11	14:20	INST ____ OBS 3.1°C COR ____ °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST ____ OBS ____ °C COR ____ °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST ____ OBS ____ °C COR ____ °C

LAB USE ONLY
Intact (Y) N
Headspace Y / N / NA
Log-In-Review

REMARKS:
All tests-midland

Dry Weight Basis Required
TRRP Report Required
Check If Special Reporting Limits Are Needed

Carrier # Courier

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

ORIGINAL COPY

Summary Report

Steve Killingsworth
Talon LPE-Midland
2901 State Highway 349
Midland, TX 79706

Report Date: June 21, 2011

Work Order: 11061022

Project Location: Hobbs, NM
Project Name: Monsanto #4
Project Number: 701047.014.01

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
268922	MW 1	water	2011-06-10	11:55	2011-06-10
268923	MW 2	water	2011-06-10	10:45	2011-06-10
268924	MW 3	water	2011-06-10	11:34	2011-06-10
268925	MW 4	water	2011-06-10	11:11	2011-06-10
268926	MW 5	water	2011-06-10	11:03	2011-06-10
268927	MW 7	water	2011-06-10	11:26	2011-06-10

Sample: 268922 - MW 1

Param	Flag	Result	Units	RL
Chloride		1030	mg/L	2.5
Total Dissolved Solids		2150	mg/L	10

Sample: 268923 - MW 2

Param	Flag	Result	Units	RL
Chloride		34.1	mg/L	2.5
Total Dissolved Solids		470	mg/L	10

Sample: 268924 - MW 3

Param	Flag	Result	Units	RL
Chloride		35.6	mg/L	2.5

continued ...

sample 268924 continued ...

Param	Flag	Result	Units	RL
Total Dissolved Solids		**427**	mg/L	10

Sample: 268925 - MW 4

Param	Flag	Result	Units	RL
Chloride		**230**	mg/L	2.5
Total Dissolved Solids		**752**	mg/L	10

Sample: 268926 - MW 5

Param	Flag	Result	Units	RL
Chloride		**30.9**	mg/L	2.5
Total Dissolved Solids		**447**	mg/L	10

Sample: 268927 - MW 7

Param	Flag	Result	Units	RL
Chloride		**191**	mg/L	2.5
Total Dissolved Solids		**594**	mg/L	10

TRACEANALYSIS, INC.

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5002 Basin Street, Suite A1 | Midland, Texas 79703 | | 432•689•6301 | FAX 432•689•6313
6015 Harris Parkway, Suite 110 | Ft. Worth, Texas 76132 | | 817•201•5260

E-Mail: lab@traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Steve Killingsworth
Talon LPE-Midland
2901 State Highway 349
Midland, TX, 79706

Report Date: June 21, 2011

Work Order: 11061022

Project Location: Hobbs, NM
Project Name: Monsanto #4
Project Number: 701047.014.01

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
268922	MW 1	water	2011-06-10	11:55	2011-06-10
268923	MW 2	water	2011-06-10	10:45	2011-06-10
268924	MW 3	water	2011-06-10	11:34	2011-06-10
268925	MW 4	water	2011-06-10	11:11	2011-06-10
268926	MW 5	water	2011-06-10	11:03	2011-06-10
268927	MW 7	water	2011-06-10	11:26	2011-06-10

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Michael Abel

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

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Case Narrative

Samples for project Monsanto #4 were received by TraceAnalysis, Inc. on 2011-06-10 and assigned to work order 11061022. Samples for work order 11061022 were received intact at a temperature of 2.5 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	69766	2011-06-13 at 10:33	82186	2011-06-14 at 10:32
TDS	SM 2540C	69765	2011-06-13 at 11:32	82268	2011-06-16 at 12:09

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11061022 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 268922 - MW 1

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	82186	Date Analyzed:	2011-06-14	Analyzed By:	AR
Prep Batch:	69766	Sample Preparation:	2011-06-13	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**1030**	mg/L	50	2.50

Sample: 268922 - MW 1

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	82268	Date Analyzed:	2011-06-16	Analyzed By:	AR
Prep Batch:	69765	Sample Preparation:	2011-06-13	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**2150**	mg/L	2	10.0

Sample: 268923 - MW 2

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	82186	Date Analyzed:	2011-06-14	Analyzed By:	AR
Prep Batch:	69766	Sample Preparation:	2011-06-13	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**34.1**	mg/L	5	2.50

Sample: 268923 - MW 2

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	82268	Date Analyzed:	2011-06-16	Analyzed By:	AR
Prep Batch:	69765	Sample Preparation:	2011-06-13	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**470**	mg/L	1	10.0

Sample: 268924 - MW 3

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	82186	Date Analyzed:	2011-06-14	Analyzed By:	AR
Prep Batch:	69766	Sample Preparation:	2011-06-13	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**35.6**	mg/L	5	2.50

Sample: 268924 - MW 3

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	82268	Date Analyzed:	2011-06-16	Analyzed By:	AR
Prep Batch:	69765	Sample Preparation:	2011-06-13	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**427**	mg/L	1	10.0

Sample: 268925 - MW 4

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	82186	Date Analyzed:	2011-06-14	Analyzed By:	AR
Prep Batch:	69766	Sample Preparation:	2011-06-13	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**230**	mg/L	10	2.50

Sample: 268925 - MW 4

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	82268	Date Analyzed:	2011-06-16	Analyzed By:	AR
Prep Batch:	69765	Sample Preparation:	2011-06-13	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**752**	mg/L	2	10.0

Sample: 268926 - MW 5

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	82186	Date Analyzed:	2011-06-14	Analyzed By:	AR
Prep Batch:	69766	Sample Preparation:	2011-06-13	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**30.9**	mg/L	5	2.50

Sample: 268926 - MW 5

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	82268	Date Analyzed:	2011-06-16	Analyzed By:	AR
Prep Batch:	69765	Sample Preparation:	2011-06-13	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**447**	mg/L	1	10.0

Sample: 268927 - MW 7

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	82186	Date Analyzed:	2011-06-14	Analyzed By:	AR
Prep Batch:	69766	Sample Preparation:	2011-06-13	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**191**	mg/L	5	2.50

Sample: 268927 - MW 7

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	82268	Date Analyzed:	2011-06-16	Analyzed By:	AR
Prep Batch:	69765	Sample Preparation:	2011-06-13	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**594**	mg/L	2	10.0

Method Blanks

Method Blank (1) QC Batch: 82186

QC Batch: 82186 | Date Analyzed: 2011-06-14 | Analyzed By: AR
Prep Batch: 69766 | QC Preparation: 2011-06-13 | Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		1	0.827	mg/L	2.5

Method Blank (1) QC Batch: 82268

QC Batch: 82268 | Date Analyzed: 2011-06-16 | Analyzed By: AR
Prep Batch: 69765 | QC Preparation: 2011-06-13 | Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Total Dissolved Solids		1	<9.75	mg/L	10

Duplicates (1) Duplicated Sample: 268927

QC Batch: 82268 | Date Analyzed: 2011-06-16 | Analyzed By: AR
Prep Batch: 69765 | QC Preparation: 2011-06-13 | Prepared By: AR

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	1	654	594	mg/L	2	10	10

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 82186 | Date Analyzed: 2011-06-14 | Analyzed By: AR
Prep Batch: 69766 | QC Preparation: 2011-06-13 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	24.7	mg/L	1	25.0	<0.265	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	25.3	mg/L	1	25.0	<0.265	101	90 - 110	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 82268 | Date Analyzed: 2011-06-16 | Analyzed By: AR
Prep Batch: 69765 | QC Preparation: 2011-06-13 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	953	mg/L	1	1000	<9.75	95	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	978	mg/L	1	1000	<9.75	98	90 - 110	3	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 268927

QC Batch: 82186 | Date Analyzed: 2011-06-14 | Analyzed By: AR
Prep Batch: 69766 | QC Preparation: 2011-06-13 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	506	mg/L	10	275	187	116	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	488	mg/L	10	275	187	109	90 - 110	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Calibration Standards

Standard (ICV-1)

QC Batch: 82186 Date Analyzed: 2011-06-14 Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	25.2	101	90 - 110	2011-06-14

Standard (CCV-1)

QC Batch: 82186 Date Analyzed: 2011-06-14 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	26.1	104	90 - 110	2011-06-14

Appendix

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-10-TX	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

LAB Order ID # 11061022

Page 1 of 1

TraceAnalysis, Inc.

email: lab@traceanalysis.com

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Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

5002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313

200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name: Talon LPE — Phone #:

Address: (Street, City, Zip) 2901 State HWY 349 — Fax #:

Contact Person: Steve Killingsworth — E-mail: sk.killingsworth@talonlpe

Invoice to: (If different from above) [redacted]

Project #: 701047.014.01 — Project Name: Monsanto #4

Project Location (including state): Hobbs/NM — Sampler Signature: [signature]

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
268922	MW1	1	500ml	X								X		6-10-11	1155
923	MW2														1045
924	MW3														1134
925	MW4														1111
926	MW5														1103
	MW6														
927	MW7														1126

Analyses requested: MTBE 8021 / 602 / 8260 / 624; BTEX 8021 / 602 / 8260 / 624; TPH 418.1 / TX1005 / TX1005 Ext(C35); TPH 8015 GRO / DRO / TVHC; PAH 8270 / 625; Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7; TCLP Metals Ag As Ba Cd Cr Pb Se Hg; TCLP Volatiles; TCLP Semi Volatiles; TCLP Pesticides; RCI; GC/MS Vol. 8260 / 624; GC/MS Semi. Vol. 8270 / 625; PCB's 8082 / 608; Pesticides 8081 / 608; BOD, TSS, pH; Moisture Content; Cl, Fl, SO4, NO3, NO2, Alkalinity; Na, Ca, Mg, K, (TDS) EC; Turn Around Time if different from standard; Hold

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
[signature]	Talon	6-10-11	1537	[signature]	T/A	6/10/11	15:37	INST 2.6 °C; OBS °C; COR °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST °C; OBS °C; COR °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST °C; OBS °C; COR °C

LAB USE ONLY

Intact Y / N

Headspace Y / N / NA

Log-In-Review

REMARKS: All tests Midland

- Dry Weight Basis Required
- TRRP Report Required
- Check If Special Reporting Limits Are Needed

Carrier # Camp

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

ORIGINAL COPY

Summary Report

Steve Killingsworth
Talon LPE-Midland
2901 State Highway 349
Midland, TX 79706

Report Date: October 6, 2011

Work Order: 11092905

Project Location: Hobbs, NM
Project Name: Monsanto #4
Project Number: 701047.014.01

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
278570	MW-1	water	2011-09-27	14:55	2011-09-28
278571	MW-2	water	2011-09-27	15:05	2011-09-28
278572	MW-3	water	2011-09-27	15:00	2011-09-28
278573	MW-4	water	2011-09-27	15:10	2011-09-28
278574	MW-5	water	2011-09-27	15:30	2011-09-28
278575	MW-6	water	2011-09-27	15:22	2011-09-28
278576	MW-7	water	2011-09-27	15:15	2011-09-28

Sample: 278570 - MW-1

Param	Flag	Result	Units	RL
Chloride	Qe	970	mg/L	2.5
Total Dissolved Solids		2280	mg/L	10

Sample: 278571 - MW-2

Param	Flag	Result	Units	RL
Chloride	Qe	24.8	mg/L	2.5
Total Dissolved Solids		428.0	mg/L	10

Sample: 278572 - MW-3

continued ...

sample 278572 continued ...

Param	Flag	Result	Units	RL
Chloride	Qs	**26.1**	mg/L	2.5
Total Dissolved Solids		**314.0**	mg/L	10

Sample: 278573 - MW-4

Param	Flag	Result	Units	RL
Chloride	Qs	**180**	mg/L	2.5
Total Dissolved Solids		**664.0**	mg/L	10

Sample: 278574 - MW-5

Param	Flag	Result	Units	RL
Chloride	Qs	**24.9**	mg/L	2.5
Total Dissolved Solids		**407.0**	mg/L	10

Sample: 278575 - MW-6

Param	Flag	Result	Units	RL
Chloride	Qs	**25.0**	mg/L	2.5
Total Dissolved Solids		**405.0**	mg/L	10

Sample: 278576 - MW-7

Param	Flag	Result	Units	RL
Chloride	Qs	**423**	mg/L	2.5
Total Dissolved Solids		**968.0**	mg/L	10

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 | Lubbock, Texas 79424 | 800•378•1296 | 806•794•1296 | FAX 806•794•1298
200 East Sunset Road, Suite E | El Paso, Texas 79922 | 888•588•3443 | 915•585•3443 | FAX 915•585•4944
5002 Basin Street, Suite A1 | Midland, Texas 79703 | | 432•689•6301 | FAX 432•689•6313
6015 Harris Parkway, Suite 110 | Ft. Worth, Texas 76132 | | 817•201•5260 |
E-Mail: lab@traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Steve Killingsworth
Talon LPE-Midland
2901 State Highway 349
Midland, TX, 79706

Report Date: October 6, 2011

Work Order: 11092905

Project Location: Hobbs, NM
Project Name: Monsanto #4
Project Number: 701047.014.01

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
278570	MW-1	water	2011-09-27	14:55	2011-09-28
278571	MW-2	water	2011-09-27	15:05	2011-09-28
278572	MW-3	water	2011-09-27	15:00	2011-09-28
278573	MW-4	water	2011-09-27	15:10	2011-09-28
278574	MW-5	water	2011-09-27	15:30	2011-09-28
278575	MW-6	water	2011-09-27	15:22	2011-09-28
278576	MW-7	water	2011-09-27	15:15	2011-09-28

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

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Case Narrative

Samples for project Monsanto #4 were received by TraceAnalysis, Inc. on 2011-09-28 and assigned to work order 11092905. Samples for work order 11092905 were received intact at a temperature of 5.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	72344	2011-10-03 at 11:42	85209	2011-10-03 at 11:48
Chloride (IC)	E 300.0	72403	2011-10-05 at 10:29	85286	2011-10-05 at 10:42
TDS	SM 2540C	72341	2011-10-03 at 11:11	85206	2011-10-03 at 11:13
TDS	SM 2540C	72424	2011-10-05 at 15:43	85310	2011-10-05 at 15:45

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11092905 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 278570 - MW-1

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	85209	Date Analyzed:	2011-10-03	Analyzed By:	CR
Prep Batch:	72344	Sample Preparation:	2011-09-30	Prepared By:	CR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride	Qs	1	**970**	mg/L	100	2.50

Sample: 278570 - MW-1

Laboratory:	Lubbock				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	85206	Date Analyzed:	2011-10-03	Analyzed By:	RL
Prep Batch:	72341	Sample Preparation:	2011-09-30	Prepared By:	RL

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Total Dissolved Solids		1	**2280**	mg/L	5	10.00

Sample: 278571 - MW-2

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	85209	Date Analyzed:	2011-10-03	Analyzed By:	CR
Prep Batch:	72344	Sample Preparation:	2011-09-30	Prepared By:	CR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride	Qs	1	**24.8**	mg/L	6	2.50

Sample: 278571 - MW-2

Laboratory:	Lubbock				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	85206	Date Analyzed:	2011-10-03	Analyzed By:	RL
Prep Batch:	72341	Sample Preparation:	2011-09-30	Prepared By:	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**428.0**	mg/L	1	10.00

Sample: 278572 - MW-3

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	85209	Date Analyzed:	2011-10-03	Analyzed By:	CR
Prep Batch:	72344	Sample Preparation:	2011-09-30	Prepared By:	CR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Qs	1	**26.1**	mg/L	6	2.50

Sample: 278572 - MW-3

Laboratory:	Lubbock				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	85310	Date Analyzed:	2011-10-05	Analyzed By:	CR
Prep Batch:	72424	Sample Preparation:	2011-10-05	Prepared By:	CR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**314.0**	mg/L	1	10.00

Sample: 278573 - MW-4

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	85209	Date Analyzed:	2011-10-03	Analyzed By:	CR
Prep Batch:	72344	Sample Preparation:	2011-09-30	Prepared By:	CR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Qs	1	**180**	mg/L	6	2.50

Sample: 278573 - MW-4

Laboratory:	Lubbock				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	85310	Date Analyzed:	2011-10-05	Analyzed By:	CR
Prep Batch:	72424	Sample Preparation:	2011-10-05	Prepared By:	CR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**664.0**	mg/L	1	10.00

Sample: 278574 - MW-5

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	85209	Date Analyzed:	2011-10-03	Analyzed By:	CR
Prep Batch:	72344	Sample Preparation:	2011-09-30	Prepared By:	CR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Qs	1	**24.9**	mg/L	6	2.50

Sample: 278574 - MW-5

Laboratory:	Lubbock				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	85310	Date Analyzed:	2011-10-05	Analyzed By:	CR
Prep Batch:	72424	Sample Preparation:	2011-10-05	Prepared By:	CR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**407.0**	mg/L	1	10.00

Sample: 278575 - MW-6

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	85209	Date Analyzed:	2011-10-03	Analyzed By:	CR
Prep Batch:	72344	Sample Preparation:	2011-09-30	Prepared By:	CR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride	Qs	1	**25.0**	mg/L	6	2.50

Sample: 278575 - MW-6

Laboratory:	Lubbock				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	85310	Date Analyzed:	2011-10-05	Analyzed By:	CR
Prep Batch:	72424	Sample Preparation:	2011-10-05	Prepared By:	CR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Total Dissolved Solids		1	**405.0**	mg/L	1	10.00

Sample: 278576 - MW-7

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	85286	Date Analyzed:	2011-10-05	Analyzed By:	CR
Prep Batch:	72403	Sample Preparation:	2011-10-04	Prepared By:	CR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride	Qs	1	**423**	mg/L	10	2.50

Sample: 278576 - MW-7

Laboratory:	Lubbock				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	85310	Date Analyzed:	2011-10-05	Analyzed By:	CR
Prep Batch:	72424	Sample Preparation:	2011-10-05	Prepared By:	CR

continued ...

sample 278576 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**968.0**	mg/L	2	10.00

Method Blanks

Method Blank (1) QC Batch: 85206

QC Batch: 85206 | Date Analyzed: 2011-10-03 | Analyzed By: RL
Prep Batch: 72341 | QC Preparation: 2011-10-03 | Prepared By: RL

Parameter	Flag	Cert	MDL Result	Units	RL
Total Dissolved Solids		1	<5.000	mg/L	10

Method Blank (1) QC Batch: 85209

QC Batch: 85209 | Date Analyzed: 2011-10-03 | Analyzed By: CR
Prep Batch: 72344 | QC Preparation: 2011-10-03 | Prepared By: CR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		1	<0.0319	mg/L	2.5

Method Blank (1) QC Batch: 85286

QC Batch: 85286 | Date Analyzed: 2011-10-05 | Analyzed By: CR
Prep Batch: 72403 | QC Preparation: 2011-10-05 | Prepared By: CR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		1	0.108	mg/L	2.5

Method Blank (1) QC Batch: 85310

QC Batch: 85310 | Date Analyzed: 2011-10-05 | Analyzed By: CR
Prep Batch: 72424 | QC Preparation: 2011-10-05 | Prepared By: CR

Parameter	Flag	Cert	MDL Result	Units	RL
Total Dissolved Solids		1	<5.000	mg/L	10

Duplicates (1) Duplicated Sample: 278558

QC Batch: 85206 | Date Analyzed: 2011-10-03 | Analyzed By: RL
Prep Batch: 72341 | QC Preparation: 2011-10-03 | Prepared By: RL

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	1	1312	1356	mg/L	2	3	10

Duplicates (1) Duplicated Sample: 278999

QC Batch: 85310 | Date Analyzed: 2011-10-05 | Analyzed By: CR
Prep Batch: 72424 | QC Preparation: 2011-10-05 | Prepared By: CR

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	1	682.0	680.0	mg/L	2	0	10

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 85206 | Date Analyzed: 2011-10-03 | Analyzed By: RL
Prep Batch: 72341 | QC Preparation: 2011-10-03 | Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	1010	mg/L	1	1000	<5.00	101	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	1020	mg/L	1	1000	<5.00	102	90 - 110	1	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 85209 | Date Analyzed: 2011-10-03 | Analyzed By: CR
Prep Batch: 72344 | QC Preparation: 2011-10-03 | Prepared By: CR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	24.1	mg/L	1	25.0	<0.0319	96	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	23.8	mg/L	1	25.0	<0.0319	95	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 85286 | Date Analyzed: 2011-10-05 | Analyzed By: CR
Prep Batch: 72403 | QC Preparation: 2011-10-05 | Prepared By: CR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	23.9	mg/L	1	25.0	0.108	95	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	23.4	mg/L	1	25.0	0.108	93	90 - 110	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 85310 | Date Analyzed: 2011-10-05 | Analyzed By: CR
Prep Batch: 72424 | QC Preparation: 2011-10-05 | Prepared By: CR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	973	mg/L	1	1000	<5.00	97	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	1000	mg/L	1	1000	<5.00	100	90 - 110	3	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 278554

QC Batch: 85209 | Date Analyzed: 2011-10-03 | Analyzed By: CR
Prep Batch: 72344 | QC Preparation: 2011-10-03 | Prepared By: CR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	Qs	1	198	mg/L	6	150	70.6	85	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	Qs	1	195	mg/L	6	150	70.6	83	90 - 110	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-2) Spiked Sample: 278575

QC Batch: 85209 | Date Analyzed: 2011-10-03 | Analyzed By: CR
Prep Batch: 72344 | QC Preparation: 2011-10-03 | Prepared By: CR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	Qs	1	148	mg/L	6	150	25	82	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	Qs	1	147	mg/L	6	150	25	81	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 278694

QC Batch: 85286 | Date Analyzed: 2011-10-05 | Analyzed By: CR
Prep Batch: 72403 | QC Preparation: 2011-10-05 | Prepared By: CR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	561	mg/L	12	300	275	95	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	549	mg/L	12	300	275	91	90 - 110	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-2) Spiked Sample: 278887

QC Batch: 85286 | Date Analyzed: 2011-10-05 | Analyzed By: CR
Prep Batch: 72403 | QC Preparation: 2011-10-05 | Prepared By: CR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	Qs	1	166	mg/L	6	150	42	83	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	Q8	1	163	mg/L	6	150	42	81	90 - 110	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Calibration Standards

Standard (CCV-1)

QC Batch: 85209 Date Analyzed: 2011-10-03 Analyzed By: CR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.3	93	90 - 110	2011-10-03

Standard (CCV-2)

QC Batch: 85209 Date Analyzed: 2011-10-03 Analyzed By: CR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	26.6	106	90 - 110	2011-10-03

Standard (CCV-1)

QC Batch: 85286 Date Analyzed: 2011-10-05 Analyzed By: CR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.9	100	90 - 110	2011-10-05

Standard (CCV-2)

QC Batch: 85286 Date Analyzed: 2011-10-05 Analyzed By: CR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.4	94	90 - 110	2011-10-05

Appendix

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704219-11-4	Lubbock

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

LAB Order ID # 1109290S

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TraceAnalysis, Inc.

email: lab@traceanalysis.com

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Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

5002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313

200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name: Talon LPE

Phone #:

Address: (Street, City, Zip)

Fax #:

Contact Person: Steve Hillingsworth

E-mail: Shillingsworth@talonLPE.com

Invoice to:
(If different from above)

Project #: 701047.014.01

Project Name: Monsanto #4

Project Location (including state): Hobbs NM

Sampler Signature:

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC					Turn Around Time if different from standard	Hold
278570	MW 1	1	500ml HNO3	X				X				X		9/27	1455	X	X	X													X	X	TDS					
571	MW 2														1505																							
572	MW 3														1500																							
573	MW 4														1610																							
574	MW 5														1530																							
575	MW 6														1522																							
576	MW 7														1515																							

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
	Talon LPE	9/28	1710		TA	9/28/11	1710	INST 4.9 °C OBS 5.6 °C COR °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST °C OBS °C COR °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST °C OBS °C COR °C

LAB USE ONLY

Intact Y / N

Headspace Y / N / NA

Log-In-Review

REMARKS:

in ice

- ☐ Dry Weight Basis Required
- ☐ TRRP Report Required
- ☐ Check If Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier # _____

ORIGINAL COPY

Summary Report

Steve Killingsworth
Talon LPE-Midland
2901 State Highway 349
Midland, TX 79706

Report Date: December 30, 2011

Work Order: 11122204

Project Location: Hobbs, NM
Project Name: Monsanto #4
Project Number: 701047.014.01

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
285028	MW-1	water	2011-12-21	11:40	2011-12-21
285029	MW-2	water	2011-12-21	11:50	2011-12-21
285030	MW-3	water	2011-12-21	12:00	2011-12-21
285031	MW-4	water	2011-12-21	12:10	2011-12-21
285032	MW-5	water	2011-12-21	12:15	2011-12-21
285033	MW-6	water	2011-12-21	12:25	2011-12-21
285034	MW-7	water	2011-12-21	12:30	2011-12-21

Sample: 285028 - MW-1

Param	Flag	Result	Units	RL
Chloride	Qs	**959**	mg/L	2.5
Total Dissolved Solids		**2312**	mg/L	10

Sample: 285029 - MW-2

Param	Flag	Result	Units	RL
Chloride	Qs	**40.3**	mg/L	2.5
Total Dissolved Solids		**374.0**	mg/L	10

Sample: 285030 - MW-3

continued ...

sample 285030 continued ...

Param	Flag	Result	Units	RL

Param	Flag	Result	Units	RL
Chloride	Qs	**24.0**	mg/L	2.5
Total Dissolved Solids		**403.0**	mg/L	10

Sample: 285031 - MW-4

Param	Flag	Result	Units	RL
Chloride	Qs	**234**	mg/L	2.5
Total Dissolved Solids		**766.0**	mg/L	10

Sample: 285032 - MW-5

Param	Flag	Result	Units	RL
Chloride	Qs	**22.5**	mg/L	2.5
Total Dissolved Solids		**505.0**	mg/L	10

Sample: 285033 - MW-6

Param	Flag	Result	Units	RL
Chloride	Qs	**21.6**	mg/L	2.5
Total Dissolved Solids		**570.0**	mg/L	10

Sample: 285034 - MW-7

Param	Flag	Result	Units	RL
Chloride	Qs	**340**	mg/L	2.5
Total Dissolved Solids		**994.0**	mg/L	10

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
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6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Steve Killingsworth
Talon LPE-Midland
2901 State Highway 349
Midland, TX, 79706

Report Date: December 30, 2011

Work Order: 11122204

Project Location: Hobbs, NM
Project Name: Monsanto #4
Project Number: 701047.014.01

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
285028	MW-1	water	2011-12-21	11:40	2011-12-21
285029	MW-2	water	2011-12-21	11:50	2011-12-21
285030	MW-3	water	2011-12-21	12:00	2011-12-21
285031	MW-4	water	2011-12-21	12:10	2011-12-21
285032	MW-5	water	2011-12-21	12:15	2011-12-21
285033	MW-6	water	2011-12-21	12:25	2011-12-21
285034	MW-7	water	2011-12-21	12:30	2011-12-21

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Blair Leftwich

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

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Case Narrative

Samples for project Monsanto #4 were received by TraceAnalysis, Inc. on 2011-12-21 and assigned to work order 11122204. Samples for work order 11122204 were received intact without headspace and at a temperature of 3.4 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	74245	2011-12-27 at 11:24	87430	2011-12-27 at 11:25
Chloride (IC)	E 300.0	74296	2011-12-29 at 17:13	87495	2011-12-29 at 17:15
TDS	SM 2540C	74287	2011-12-28 at 16:00	87483	2011-12-29 at 12:34

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11122204 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 285028 - MW-1

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	87430	Date Analyzed:	2011-12-27	Analyzed By:	RL
Prep Batch:	74245	Sample Preparation:	2011-12-23	Prepared By:	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Q8	1	**959**	mg/L	50	2.50

Sample: 285028 - MW-1

Laboratory:	Lubbock				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	87483	Date Analyzed:	2011-12-29	Analyzed By:	ER
Prep Batch:	74287	Sample Preparation:	2011-12-28	Prepared By:	ER

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**2312**	mg/L	2	10.00

Sample: 285029 - MW-2

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	87430	Date Analyzed:	2011-12-27	Analyzed By:	RL
Prep Batch:	74245	Sample Preparation:	2011-12-23	Prepared By:	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Q8	1	**40.3**	mg/L	5	2.50

Sample: 285029 - MW-2

Laboratory:	Lubbock				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	87483	Date Analyzed:	2011-12-29	Analyzed By:	ER
Prep Batch:	74287	Sample Preparation:	2011-12-28	Prepared By:	ER

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Total Dissolved Solids		1	**374.0**	mg/L	1	10.00

Sample: 285030 - MW-3

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	87430	Date Analyzed:	2011-12-27	Analyzed By:	RL
Prep Batch:	74245	Sample Preparation:	2011-12-23	Prepared By:	RL

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride	Qs	1	**24.0**	mg/L	5	2.50

Sample: 285030 - MW-3

Laboratory:	Lubbock				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	87483	Date Analyzed:	2011-12-29	Analyzed By:	ER
Prep Batch:	74287	Sample Preparation:	2011-12-28	Prepared By:	ER

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Total Dissolved Solids		1	**403.0**	mg/L	1	10.00

Sample: 285031 - MW-4

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	87430	Date Analyzed:	2011-12-27	Analyzed By:	RL
Prep Batch:	74245	Sample Preparation:	2011-12-23	Prepared By:	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Qs	1	**234**	mg/L	5	2.50

Sample: 285031 - MW-4

Laboratory:	Lubbock				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	87483	Date Analyzed:	2011-12-29	Analyzed By:	ER
Prep Batch:	74287	Sample Preparation:	2011-12-28	Prepared By:	ER

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**766.0**	mg/L	1	10.00

Sample: 285032 - MW-5

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	87430	Date Analyzed:	2011-12-27	Analyzed By:	RL
Prep Batch:	74245	Sample Preparation:	2011-12-23	Prepared By:	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Qs	1	**22.5**	mg/L	5	2.50

Sample: 285032 - MW-5

Laboratory:	Lubbock				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	87483	Date Analyzed:	2011-12-29	Analyzed By:	ER
Prep Batch:	74287	Sample Preparation:	2011-12-28	Prepared By:	ER

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	505.0	mg/L	1	10.00

Sample: 285033 - MW-6

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	87430	Date Analyzed:	2011-12-27	Analyzed By:	RL
Prep Batch:	74245	Sample Preparation:	2011-12-23	Prepared By:	RL

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride	Qs	1	**21.6**	mg/L	5	2.50

Sample: 285033 - MW-6

Laboratory:	Lubbock				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	87483	Date Analyzed:	2011-12-29	Analyzed By:	ER
Prep Batch:	74287	Sample Preparation:	2011-12-28	Prepared By:	ER

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Total Dissolved Solids		1	**570.0**	mg/L	5	10.00

Sample: 285034 - MW-7

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	87495	Date Analyzed:	2011-12-29	Analyzed By:	RL
Prep Batch:	74296	Sample Preparation:	2011-12-28	Prepared By:	RL

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride	Qs	1	**340**	mg/L	10	2.50

Sample: 285034 - MW-7

Laboratory:	Lubbock				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	87483	Date Analyzed:	2011-12-29	Analyzed By:	ER
Prep Batch:	74287	Sample Preparation:	2011-12-28	Prepared By:	ER

continued ...

sample 285034 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolved Solids		1	**994.0**	mg/L	1	10.00

Method Blanks

Method Blank (1) QC Batch: 87430

QC Batch:	87430	Date Analyzed:	2011-12-27	Analyzed By:	RL
Prep Batch:	74245	QC Preparation:	2011-12-27	Prepared By:	RL

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		1	0.613	mg/L	2.5

Method Blank (1) QC Batch: 87483

QC Batch:	87483	Date Analyzed:	2011-12-29	Analyzed By:	ER
Prep Batch:	74287	QC Preparation:	2011-12-28	Prepared By:	ER

Parameter	Flag	Cert	MDL Result	Units	RL
Total Dissolved Solids		1	<5.000	mg/L	10

Method Blank (1) QC Batch: 87495

QC Batch:	87495	Date Analyzed:	2011-12-29	Analyzed By:	RL
Prep Batch:	74296	QC Preparation:	2011-12-29	Prepared By:	RL

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		1	<0.0319	mg/L	2.5

Duplicates (1) Duplicated Sample: 285033

QC Batch:	87483	Date Analyzed:	2011-12-29	Analyzed By:	ER
Prep Batch:	74287	QC Preparation:	2011-12-28	Prepared By:	ER

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	1	570.0	570.0	mg/L	5	0	10

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 87430
Prep Batch: 74245

Date Analyzed: 2011-12-27
QC Preparation: 2011-12-27

Analyzed By: RL
Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	24.7	mg/L	1	25.0	<0.0319	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	23.5	mg/L	1	25.0	<0.0319	94	90 - 110	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 87483
Prep Batch: 74287

Date Analyzed: 2011-12-29
QC Preparation: 2011-12-28

Analyzed By: ER
Prepared By: ER

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	993	mg/L	1	1000	<5.00	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	973	mg/L	1	1000	<5.00	97	90 - 110	2	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 87495
Prep Batch: 74296

Date Analyzed: 2011-12-29
QC Preparation: 2011-12-29

Analyzed By: RL
Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	24.0	mg/L	1	25.0	<0.0319	96	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	24.0	mg/L	1	25.0	<0.0319	96	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 285037

QC Batch: 87430 | Date Analyzed: 2011-12-27 | Analyzed By: RL
Prep Batch: 74245 | QC Preparation: 2011-12-27 | Prepared By: RL

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	Qs	Qs	379	mg/L	5	125	17.8	289	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	Qs	Qs	372	mg/L	5	125	17.8	283	90 - 110	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 285415

QC Batch: 87495 | Date Analyzed: 2011-12-29 | Analyzed By: RL
Prep Batch: 74296 | QC Preparation: 2011-12-29 | Prepared By: RL

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	Qs	Qs	367	mg/L	5	104	278	86	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	Qs	Qs	346	mg/L	5	104	278	65	90 - 110	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Calibration Standards

Standard (CCV-1)

QC Batch: 87430 | Date Analyzed: 2011-12-27 | Analyzed By: RL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	25.5	102	90 - 110	2011-12-27

Standard (CCV-2)

QC Batch: 87430 | Date Analyzed: 2011-12-27 | Analyzed By: RL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	22.5	90	90 - 110	2011-12-27

Standard (CCV-1)

QC Batch: 87495 | Date Analyzed: 2011-12-29 | Analyzed By: RL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.0	96	90 - 110	2011-12-29

Standard (CCV-2)

QC Batch: 87495 | Date Analyzed: 2011-12-29 | Analyzed By: RL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	26.2	105	90 - 110	2011-12-29

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704219-11-5	Lubbock

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time.
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

LAB Order ID # 11122204

Page _____ of _____

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

5002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313

200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name: Talon LPE — Phone #:

Address: (Street, City, Zip) 2901 State HWY 349 — Fax #:

Contact Person: Steve Killingsworth — E-mail: skillingsworth@talonlpe.com

Invoice to: (If different from above)

Project #: 701047.014.01 — Project Name: Monsanto #4

Project Location (including state): Hobbs NM — Sampler Signature: Brad Ivy

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
285028	MW1	01	1	X								X	X	12/21	1140
029	MW2														1150
030	MW3														1200
031	MW4														1210
032	MW5														1215
033	MW6														1225
034	MW7														1230

MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, Fl, SO4, NO3, NO2, Alkalinity	Na, Ca, Mg, K, TDS, EC	TDS + Total chlorides	Turn Around Time if different from standard	Hold
																			X		

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
Brad Ivy	Talon LPE	12/21/11	4:00 pm					INST ____ °C OBS ____ °C COR ____ °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST ____ °C OBS ____ °C COR ____ °C
Relinquished by:	Company:	Date:	Time:	Received by: Brenda Ward	Company: Trac Network	Date: 12/21/11	Time: 4:00 pm	INST IR °C OBS 3.3 °C COR 3.4 °C

LAB USE ONLY

Intact Y / N

Headspace Y / N / NA

Log-In-Review

REMARKS:

- ☐ Dry Weight Basis Required
- ☐ TRRP Report Required
- ☐ Check If Special Reporting Limits Are Needed

Carrier # Cascade

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

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