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February 21, 2013

Mr. Ray Montes  
New Mexico Environment Department  
Ground Water Quality Bureau  
Remediation Oversight Section  
1170 N. Solano, Ste. M  
Las Cruces, NM 88001

Mr. Bart Faris  
New Mexico Environment Department  
Ground Water Quality Bureau  
Remediation Oversight Section  
5500 San Antonio Dr. NE  
Albuquerque, New Mexico 87109

Dear Messrs. Montes and Faris:

On behalf of Doña Ana Dairies, Inc., EA Engineering, Science, and Technology, Inc. is submitting this Quarterly Groundwater Monitoring Report for Doña Ana Dairies located in Mesquite, Vado and Anthony, New Mexico. The report discusses the quarterly groundwater sampling event conducted to fulfill requirements of the Stage 1 Abatement Plan for Doña Ana Dairies.

Please let me know if you have any questions regarding the information provided in this report.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Teri McMillan', is written above the printed name.

Teri McMillan  
Project Manager

A handwritten signature in blue ink, appearing to read 'Jay Snyder', is written above the printed name.

Jay Snyder  
Senior Hydrogeologist

Enclosure

Cc: Linda Armstrong, Doña Ana Dairies  
File



QUARTERLY GROUNDWATER  
MONITORING REPORT  
DOÑA ANA DAIRIES  
MESQUITE, NEW MEXICO

Prepared for:

Doña Ana Dairies  
Mesquite, New Mexico

Prepared by:

EA Engineering, Science,  
and Technology, Inc.  
320 Gold Avenue SW, Suite 1210  
Albuquerque, New Mexico 87102

February 2013

EA Project No. 1464103.0004



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**Quarterly Groundwater Monitoring Report**  
Doña Ana Dairies  
Mesquite, New Mexico

Prepared for:

Doña Ana Dairies  
Mesquite, New Mexico

Prepared by:

EA Engineering, Science,  
and Technology, Inc.  
320 Gold Avenue SW, Suite 1210  
Albuquerque, New Mexico

Teri McMillan  
Project Manager

2/21/2013

Date

Jay Snyder  
Senior Hydrogeologist

2/21/2013

Date

February 2013

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## 1.0 INTRODUCTION

On behalf of Doña Ana Dairies (Dairies), EA Engineering, Science, and Technology, Inc. (EA) has prepared this Quarterly Monitoring Report for Doña Ana Dairies located south of Las Cruces, New Mexico. The report was completed in accordance with the *Stage 1 and 2 Abatement Plan Proposal and Sampling and Analysis Plan, Doña Ana Dairies, Doña Ana County, New Mexico* dated December 11, 2006 and August 11, 2008, respectively, and the Conceptual Work Plan (CWP) dated February 1, 2008. All were prepared to satisfy requirements stated in the New Mexico Administrative Code (NMAC), Title 20, 6.2 §4106 through §4110. The Stage 1 and 2 Abatement Plan was approved on June 16, 2008 by the New Mexico Environment Department (NMED) Ground Water Quality Bureau (GWQB). The Sampling and Analysis Plan was approved by the NMED GWQB on September 25, 2008.

### 1.1 Objective

The objectives of this monitoring program is to satisfy the requirements set forth in NMAC 20.6.2 4106 C, Stage 1 Abatement Plan monitoring program.

The following work was performed to meet the objectives of the monitoring program, and included:

- From October 24 through 29, 2012, two representatives from D&H Petroleum and Environmental Services, Inc. (D&H) gauged all abatement plan (AP) and discharge plan (DP) monitoring wells.
- Starting on November 5, 2012, D&H representatives collected groundwater samples from all 22 AP wells (DAD-01 through DAD-22), each Dairy's DP monitoring wells, and DP specified lagoons. The sampling campaign lasted about one month, ending on December 5, 2012. The samples were delivered to TraceAnalysis, Inc. and analyzed for nitrate using EPA Method 300.0 or SM 4500 NO<sub>3</sub> E, chloride by EPA Method 300.0, total dissolved solids (TDS) by Method SM 2540C, and total Kjeldhal nitrogen (TKN) by Method SM 4500 N org C;
- The most recent groundwater gauging and analytical results are compiled into this Quarterly Groundwater Monitoring Report.

### 1.2 Background

In April 7, 2006, correspondence, NMED required a Stage 1 Abatement Plan for 13 dairies in Doña Ana County, based on analytical results from DP monitoring of on-site compliance monitoring wells that showed concentrations of nitrate, chloride and TDS exceeding ground water standards promulgated in New Mexico Water Quality Control Commission (NMWQCC) Regulations (20 NMAC 6.2 §3103). On October 30, 2006, the Dairies notified NMED that they had reached agreement to work as a group and submit a joint response to NMED's request (Doña Ana Dairies, 2006).

On December 11, 2006, on behalf of the Doña Ana Dairies, Golder Associates (Golder) submitted a Stage 1 and 2 Abatement Plan Proposal to address impacts to groundwater in the area of the Dairies (Golder 2006). The first major deliverable in the Abatement Plan Proposal

was an Existing Data Report (EDR) to bring together in one document historical data and practices of the constituent dairies.

The EDR, submitted on February 1, 2008, (Golder 2008a) was intended to satisfy the Dairies commitment for compilation and submission of existing data identified in the Doña Ana Dairies response (2006) to the NMED requirement for Stage I Abatement Plans. Section 9 of the EDR outlined data gaps identified during the preparation of the report, as well as the actions recommended. To facilitate the discussion of the path forward after the submittal of the EDR and concurrent with the EDR submission, a conceptual work plan (CWP) (Golder 2008b).

On July 15, 2008, the Dairies, Golder and NMED met (Golder 2008c). During that meeting, plume maps presented in the EDR (Golder 2008a), new monitoring data, and knowledge of well locations and groundwater chemistry results at adjacent DP-regulated facilities were used to identify data gaps with respect to ground water flow direction and plume delineation. The agreed upon data gaps yielded well locations (including contingency locations) recorded in the meeting minutes (Golder 2008c) and depicted in the Sampling and Analysis Plan (SAP) dated August 8, 2008 (Golder 2008d). The SAP outlined the details of the field operations to be implemented for completion of data gaps, such that a Site Investigation Report (§4106.C.6) and Stage 2 Abatement Plan (§4106.D) could be prepared.

Groundwater gauging was conducted concurrent to discussions with NMED at the Dairies for four quarters, February 2008, June 2008, September 2008, and December 2008, to determine the current and historical site groundwater gradient.

In May 2009, field work was conducted as outlined in the SAP and ten (10) AP monitoring wells (DAD-01 through DAD-10) were installed. In July 2009, the Site Investigation Report was submitted to the NMED.

On February 9, 2012 the Final Site Investigation Report was submitted to NMED. The report summarized field activities that occurred from October 10 through October 14, 2011 and November 10 through 18, 2011, during which eleven soil borings were advanced at the site and converted into monitoring wells DAD-12 through DAD-14, DAD-16 through DAD-22, and DP well 177-03A.

On August 16, 2012 soil boring/monitoring well DAD-15 was installed and on August 20, 2012 well DAD-15 sampled. An addendum to the Final Site Investigation Report was submitted to NMED on September 7, 2012, which summarized DAD-15 field activities.

Quarterly groundwater monitoring is currently being conducted.

## 2.0 GROUNDWATER MONITORING ACTIVITIES

Groundwater monitoring activities conducted by D&H included gauging and sampling DP and AP monitoring wells. Groundwater samples were analyzed for nitrate, chloride, TDS, and TKN. The resulting data from this groundwater monitoring event are compiled and presented herein.

### 2.1 Well Gauging

From October 24 through 29, 2012, two representatives from D&H gauged the DP and AP monitoring wells with an electronic water level indicator. River Valley well 167-08 was damaged and could not be sampled during this event. Additionally, due to a declining water table, several wells were dry. Tables I provides a summary of the groundwater gauging data collected from the monitoring network. Potentiometric surface maps were constructed based on these data (Figures 2, 3, 4, and 5).

### 2.2 Groundwater Sampling

From December 3 through 5, 2012, D&H sampled the AP monitoring wells DAD-01 through DAD-22 with disposable bailers. Wells were purged of three well volumes with new disposable bailers prior to sample collection and were sampled from clean to dirty to the extent possible to minimize cross-contamination. All non-dedicated or disposable equipment was decontaminated between wells with an Alconox™ solution to further ensure sample quality.

DP wells were sampled between November 5, 2012 and November 30, 2012. Prior to sampling, DP wells were purged three well volumes, if practicable by hand-bailing with a new disposable bailer per well or by pumping with a pump and new polyethylene tubing or pumping with a dedicated pump. Field parameters including, at a minimum, specific conductance, pH, and temperature were monitored and recorded for most of the monitoring wells. The sampling field forms are presented in Appendix A. All meters were calibrated and/or checked with standards in accordance with manufacturer's specifications prior to daily use. Purge water was ground discharged. Copies of the field forms are included in Appendix A.

All groundwater samples were collected immediately after purging. Sampling was either accomplished by carefully pouring groundwater from the bailer into the sample containers or by pumping groundwater through polyethylene tubing into the sample container. Sample containers were provided by TraceAnalysis. Container size, type, sample preservatives, analytical methods, and holding times are specified in Table 3. All samples were preserved in accordance with method requirements, labeled, then immediately cooled to <6°C with ice and delivered under chain-of-custody to TraceAnalysis in El Paso, Texas. All analytical laboratory reports are provided in Appendix B.

### **3.0 GROUNDWATER MONITORING RESULTS**

#### **3.1 Hydraulic Gradient and Direction of Groundwater Flow**

This quarter, groundwater was present beneath the site at depths from 10.93 feet below top of casing (ft TOC) in AP well DAD-03 to 129.74 ft TOC in Dominguez #2 well 42-12. Groundwater is encountered at shallower depths near the Mesquite Drain and at greater depths near I-10 where the topographic elevation increases.

Potentiometric surface maps were completed using the monitoring well gauging data for the northern, central, and southern portions of the Dairies and are provided as Figures 2, 3, 4, and 5. Hydrographs were completed for the monitoring well and are provided in Appendix C. In general, water levels have continued to decrease in most wells when compared to the last monitoring event conducted in August 2012 (See hydrographs presented in Appendix C). An average decrease of 0.22 feet was observed in the monitoring wells. Due to the continued decrease in water levels many wells have become dry.

The groundwater flow direction throughout the northern portion, central portion and the southern regional aquifer of the Dairies was toward the east-southeast, whereas the gradient in the southern perched aquifer of the dairy near Anthony, New Mexico, flows west. The hydraulic gradient across the APA is approximately 0.001 ft./ft.

#### **3.2 Groundwater Analytical Results**

##### **3.2.1 Abatement Plan Well Results**

Groundwater analyte concentrations were below the NMWQCC standard for nitrate (10 mg/L) in all but 10 of the 22 AP monitoring wells. DAD-1, DAD-08, DAD-09, DAD-11, DAD-12, DAD-14, DAD-18, DAD-19, DAD-20 and DAD-22 had concentrations of 10.7 milligrams per liter (mg/L), 40.2 mg/L, 33.1 mg/L, 13.4 mg/L, 16.4 mg/L, 40.3 mg/L, 10.1 mg/L, 54.2 mg/L, 17.0 mg/L and 12.0 mg/L, respectively. Chloride concentrations exceeded their respective NMWQCC standard in 21 of the 22 sampled abatement wells, and TDS was exceeded in all 22 wells.

Nitrate concentrations fluctuated in most wells that were sampled, with a continued increase observed in well DAD-11. The nitrate concentration in well DAD-11 increased from 8.71 mg/L in August 2012 to 13.4 mg/L this quarter. This is the first occurrence of nitrate above standards in this well since it was installed in January 2009. The nitrate concentration in well DAD-18 increased from 9.03 mg/L in August 2012 to 10.1 mg/L this quarter, and this is the first quarter the concentration has been above standard since the well was installed in December 2011. Well DAD-14 (Gonzalez Dairy) exhibits an increasing nitrate trend since the well was installed in October 2011 while well DAD-22 (Del Oro Dairy) has a decreasing trend since the well was installed in October 2011. The nitrate concentration continues to increase in well DAD-08.

Concentrations of chloride and TDS in all wells remain relatively constant compared to levels measured in the past, with the exception of the chloride and TDS concentrations in well



DAD-11, which increased. The chloride and TDS concentrations in well DAD-11 increased from 818 mg/L to 1,210 mg/L and from 3,020 mg/L to 3,870 mg/L, respectively. Chloride concentrations ranged from 230 mg/L in DAD-17 to 2,270 mg/L in DAD-08, and TDS values ranged from 1,260 mg/L in DAD-17 to 5,980 mg/L in DAD-08.

Table 4 summarizes the analytical results for AP monitoring wells and the analytical laboratory results are found in Appendix B. Nitrate and chloride concentration trends for select DAD wells are presented in Appendix D.

### **3.2.2 Results by Areas at the Dairies**

DP groundwater analytical results are summarized in Table 5. These data were combined with the analytical data collected from the 22 AP monitoring wells and are plotted on Figures 7, 8, 9 and 10. Analytical laboratory reports are included in Appendix B. The following discussions summarize the results by area at the Dairies.

#### Northern Portion

The downgradient extent of the nitrate plume within the northern portion is defined by well DAD-02 with a nitrate concentration of 8.51 mg/L. The upgradient well (northern land application well 86/340-1) had a nitrate concentration of 12.1 mg/L, which is just above the NMWQCC standard for nitrate (10 mg/L). All eastern cross-gradient wells except well DAD-01 (Dominguez #2 wells 42-10, 42-11, and 42-12) have nitrate concentrations below the standard. Well DAD-01 had a concentration just above standards, 10.7 µg/L. The western delineating cross-gradient well Dominguez 624-05 had a nitrate concentration of 4.82 mg/L.

The chloride and TDS concentrations are above standards in all wells sampled within the northern portion. The highest concentrations of chloride and TDS were observed in the Northern Land Application area in well 70-03 at 2,850 mg/L and 7,950 mg/L, respectively.

#### Central Portion

The highest nitrate concentrations were observed in Big Sky Dairy well 833-07 and Buena Vista Dairy II well 74-01 at concentrations of 95.1 mg/L and 94.2 mg/L, respectively. Big Sky Dairy well 833-07 is located downgradient of their lagoon. The extent of the nitrate plume is defined in the Central Portion. Buena Vista well 74-03 and well DAD-03 defines the upgradient extent of the nitrate plume, while DAD-17 defines the downgradient extent of the plume. The eastern cross-gradient extent of the plume is defined by DAD-06, DAD-07, and DAD-15 and the western extent is defined by DAD-04, DAD-05 and DAD-16.

Chloride and TDS concentrations are above standards in all wells within the central portion with the exception of well DAD-17 which was below chloride standards. The highest chloride and TDS concentrations were observed at well DAD-08 at 2,270 mg/L and 5,980 mg/L. Well DAD-08 is located east of Sunset Dairy.

### Southern Portion

Nitrate is present within both the regional and perched aquifers in the southern portion of the Dairies; however, all of the wells in the regional aquifer are below the NMWQCC standard of 10 mg/L except Del Oro Dairy well 692-08 with a concentration just above standards, 11.7 mg/L.

In the shallow perched aquifer the nitrate plume is not defined downgradient (southwest); however, nitrate concentrations have been decreasing in this well DAD-22, which had a nitrate concentration of 12.0 mg/L this quarter. The well with the highest nitrate concentration in the shallow perched aquifer is Del Oro Dairy well 692-01 with a concentration of 117 mg/L.

Chloride and TDS concentrations are above NMWQCC standards in all wells sampled within the southern portion. Chloride concentrations in this area ranged from 358 mg/L in Del Oro Dairy well 692-02 to 886 mg/L in DAD-22, while TDS ranged from 1,370 mg/L to 3,490 mg/L in Del Oro Dairy wells 692-05 and 692-01, respectively. Upgradient well Del Oro 692-08 had a chloride concentration of 393 mg/L and a TDS concentration of 1,500 mg/L.

#### 4.0 CONCLUSION AND RECOMMENDATIONS

The groundwater monitoring event included the gauging of all DP and DAD wells and sampling of all 22 DAD wells in addition to the DP wells. Based on the data collected, the following conclusions and recommendations are presented:

- The depth to groundwater at the site ranged from 10.93 to 129.74 feet below the top of casing.
- In general, water levels have decreased when compared to the last monitoring event conducted in August 2012.
- The AP well DAD-20 which was previously obstructed has had the obstruction removed.
- River Valley well 167-08 has been damaged and was not able to be sampled.
- The groundwater flow direction at the Dairies within the regional groundwater aquifer is east-southeast. The hydraulic gradient is 0.001 ft./ft.
- The perched groundwater aquifer at Del Oro Dairy has a groundwater flow direction toward the southwest.
- Nitrate was below the NMWQCC standards in all but 10 of the 22 groundwater samples collected from all the AP DAD wells.
- Chloride was above NMWQCC standard in all but one monitoring well sampled.
- TDS was above the NMWQCC standard in all monitoring wells sampled.
- Chloride and TDS remain above standards in wells upgradient of the northern, central, and southern portions of the plume at the Dairies. Chloride and TDS are regionally elevated above standards and not necessarily attributed to the Dairies.

EA is recommending that the number of abatement and discharge plan wells be reduced for quarterly sampling.

## **5.0 REFERENCES**

- Doña Ana Dairies. 2006. Letter Regarding Agreement for Joint Stage 1 and Stage 2 Abatement Plan and Storm Water and Wastewater Pond Upgrades. Letter from Mr. Michael Weatherly, Chairman, Doña Ana Dairies, to Mr. William Olson, Chief, Ground Water Quality Bureau. October 30.
- Golder Associates, Inc. (Golder). 2006. Stage 1 and 2 Abatement Plan Proposal, prepared for New Mexico Environment Department, Remediation Oversight Section, on behalf of Doña Ana Dairies. December 11.
- Golder 2008a. Existing Data Report and Conceptual Work Plan, Doña Ana Dairies, Mesquite, New Mexico. February 1.
- Golder 2008b. Conceptual Work Plan. Doña Ana Dairies, Mesquite, New Mexico. February 1.
- Golder 2008c. Notes for the Meeting Regarding New Monitoring Well Installation. Meeting Participants: Doña Ana Dairy representative, DAD technical representatives, and NMED staff. July 28.
- Golder 2008d. Sampling and Analysis Plan. Doña Ana Dairies, Mesquite, New Mexico. August 11.
- New Mexico Environment Department. 2008. Conditional Approval of Stage 1 Abatement Plan for Doña Ana Dairies. Letter from Mr. Bill Olson, Chief, Ground Water Quality Bureau, to Mr. Weatherly, Doña Ana Dairies. June 16.
- New Mexico Environment Department. 2008. Approval of Sampling and Analysis Plan for the Doña Ana Dairies, Stage 1 Abatement Plan, Doña Ana County, New Mexico. September 25.

## **TABLES**

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
<b>NORTHERN AREA</b>						
<b>Northern Land Application Area</b>						
70-03	24-Oct-2012	424580.78	1510233.88	3871.43	54.05	3817.38
	30-Jul-2012				53.70	3817.73
	23-Apr-2012				52.84	3818.59
	30-Jan-2012				51.41	3820.02
	8-Dec-2011				51.49	3819.94
	19-Jul-2011				50.77	3820.66
	20-Apr-2011				49.69	3821.74
	17-Jan-2011				48.70	3822.73
	14-Sep-2010				49.02	3822.41
	24-Jun-2010				48.99	3822.44
	22-Mar-2010				48.90	3822.53
	8-Dec-2009				48.72	3822.71
	28-Aug-2009				49.21	3822.22
	26-May-2009				48.91	3822.52
	11-Dec-2008				48.02	3823.41
	28-Sep-2008				48.06	3823.37
	11-Jun-2008				49.20	3822.23
5-Feb-2008	47.95	3823.48				
14-Nov-2007	48.10	3823.33				
12-Sep-2007	48.70	3822.73				
70/86/340-01	24-Oct-2012	427320.92	1508461.05	3866.77	47.30	3819.47
	30-Jul-2012				46.84	3819.93
	23-Apr-2012				45.91	3820.86
	8-Dec-2011				45.17	3821.60
	19-Jul-2011				44.49	3822.28
	20-Apr-2011				43.15	3823.62
	17-Jan-2011				42.00	3824.77
	14-Sep-2010				41.79	3824.98
	24-Jun-2010				42.67	3824.10
	22-Mar-2010				42.21	3824.56
	8-Dec-2009				42.02	3824.75
	28-Aug-2009				42.39	3824.38
	26-May-2009				42.33	3824.44
	11-Dec-2008				41.15	3825.62
	28-Sep-2008				41.58	3825.19
	11-Jun-2008				42.31	3824.46
	5-Feb-2008				41.07	3825.70
14-Nov-2007	41.38	3825.39				
12-Sep-2007	41.46	3825.31				
86/340-01	24-Oct-2012	432021.33	1503216.90	3876.14	53.16	3822.98
	30-Jul-2012				52.70	3823.44
	23-Apr-2012				52.20	3823.94
	30-Jan-2012				51.10	3825.04
	8-Dec-2011				51.20	3824.94
	19-Jul-2011				50.36	3825.78
	20-Apr-2011				48.91	3827.23
	17-Jan-2011				47.00	3829.14
	14-Sep-2010				47.63	3828.51
	24-Jun-2010				48.22	3827.92
	22-Mar-2010				47.66	3828.48
	8-Dec-2009				47.39	3828.75
	28-Aug-2009				47.75	3828.39
	26-May-2009				47.86	3828.28
	11-Dec-2008				46.68	3829.46
	28-Sep-2008				47.44	3828.70
	11-Jun-2008				48.11	3828.03
5-Feb-2008	46.68	3829.46				
14-Nov-2007	47.11	3829.03				
12-Sep-2007	47.85	3828.29				

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DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
<b>Former Daybreak Dairy (Del Norte Dairy)</b>						
126-04	24-Oct-2012	423258.23	1510546.24	3850.31	32.58	3817.73
	30-Jul-2012				32.23	3818.08
	23-Apr-2012				31.46	3818.85
	26-Jan-2012				30.89	3819.42
	8-Dec-2011				30.84	3819.47
	19-Jul-2011				30.26	3820.05
	20-Apr-2011				29.09	3821.22
	17-Jan-2011				28.20	3822.11
	14-Sep-2010				28.60	3821.71
	24-Jun-2010				28.21	3822.10
	22-Mar-2010				28.33	3821.98
	8-Dec-2009				28.17	3822.14
	28-Aug-2009				28.50	3821.81
	26-May-2009				28.30	3822.01
	11-Dec-2008				27.56	3822.75
	27-Sep-2008				27.96	3822.35
10-Jun-2008	28.61	3821.70				
6-Feb-2008	27.53	3822.78				
14-Nov-2007	27.61	3822.70				
11-Sep-2007	28.19	3822.12				
126-05	24-Oct-2012	422293.26	1510649.84	3842.62	24.96	3817.66
	30-Jul-2012				24.73	3817.89
	23-Apr-2012				24.21	3818.41
	26-Jan-2012				23.52	3819.10
	8-Dec-2011				23.50	3819.12
	19-Jul-2011				22.72	3819.90
	20-Apr-2011				21.74	3820.88
	21-Jan-2011				21.30	3821.32
	14-Sep-2010				20.91	3821.71
	24-Jun-2010				21.13	3821.49
	22-Mar-2010				21.06	3821.56
	8-Dec-2009				20.88	3821.74
	28-Aug-2009				20.83	3821.79
	26-May-2009				20.91	3821.71
	11-Dec-2008				20.29	3822.33
	27-Sep-2008				20.42	3822.20
10-Jun-2008	21.26	3821.36				
6-Feb-2008	20.34	3822.28				
14-Nov-2007	20.32	3822.30				
11-Sep-2007	20.74	3821.88				
126-07	24-Oct-2012	423613.62	1509986.47	3850.94	32.97	3817.97
	30-Jul-2012				32.60	3818.34
	23-Apr-2012				31.84	3819.10
	26-Jan-2012				31.23	3819.71
	8-Dec-2011				31.28	3819.66
	19-Jul-2011				30.30	3820.64
	20-Apr-2011				28.59	3822.35
	27-Jan-2011				28.43	3822.51
	14-Sep-2010				28.45	3822.49
	24-Jun-2010				28.74	3822.20
	22-Mar-2010				28.57	3822.37
	8-Dec-2009				28.37	3822.57
	28-Aug-2009				28.61	3822.33
	26-May-2009				28.47	3822.47
	11-Dec-2008				27.70	3823.24
	27-Sep-2008				27.97	3822.97
10-Jun-2008	28.78	3822.16				
6-Feb-2008	27.71	3823.23				
14-Nov-2007	27.63	3823.31				
11-Sep-2007	28.06	3822.88				

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DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
126-09	24-Oct-2012	425154.15	1510994.31	3893.35	75.29	3818.06
	30-Jul-2012				74.98	3818.37
	23-Apr-2012				73.98	3819.37
	26-Jan-2012				72.24	3821.11
	8-Dec-2011				73.34	3820.01
	19-Jul-2011				73.19	3820.16
	20-Apr-2011				72.11	3821.24
	21-Jan-2011				71.00	3822.35
	14-Sep-2010				71.52	3821.83
	29-Jun-2010				72.23	3821.12
	22-Mar-2010				71.03	3822.32
	8-Dec-2009				70.94	3822.41
	28-Aug-2009				71.73	3821.62
	26-May-2009				71.12	3822.23
	11-Dec-2008				70.27	3823.08
	27-Sep-2008				70.79	3822.56
	10-Jun-2008				71.47	3821.88
	6-Feb-2008				70.08	3823.27
14-Nov-2007	70.46	3822.89				
11-Sep-2007	71.39	3821.96				
126-12	24-Oct-2012	421492.11	1510198.45	3838.88	20.53	3818.35
	30-Jul-2012				20.48	3818.40
	23-Apr-2012				20.22	3818.66
	30-Jan-2012				19.79	3819.09
	8-Dec-2011				19.55	3819.33
	19-Jul-2011				18.27	3820.61
	20-Apr-2011				17.62	3821.26
	17-Jan-2011				17.00	3821.88
	16-Sep-2010				16.48	3822.40
	24-Jun-2010				17.30	3821.58
	24-Jun-2010				17.30	3821.58
	22-Mar-2010				17.19	3821.69
	8-Dec-2009				16.99	3821.89
	28-Aug-2009				16.49	3822.39
	26-May-2009				16.85	3822.03
	11-Dec-2008				16.37	3822.51
	27-Sep-2008				16.29	3822.59
	10-Jun-2008				17.19	3821.69
6-Feb-2008	16.62	3822.26				
14-Nov-2007	16.33	3822.55				
11-Sep-2007	16.56	3822.32				
126-13	24-Oct-2012	423431.96	1510657.41	3857.37	39.60	3817.77
	30-Jul-2012				39.30	3818.07
	23-Apr-2012				38.52	3818.85
	26-Jan-2012				37.80	3819.57
	8-Dec-2011				37.86	3819.51
	19-Jul-2011				37.29	3820.08
	20-Apr-2011				35.23	3822.14
	13-Jan-2011				35.23	3822.14
	14-Sep-2010				35.66	3821.71
	24-Jun-2010				36.01	3821.36
	22-Mar-2010				35.40	3821.97
	8-Dec-2009				35.24	3822.13
	28-Aug-2009				35.60	3821.77
	26-May-2009				35.37	3822.00
	11-Dec-2008				34.62	3822.75
	27-Sep-2008				34.99	3822.38
	10-Jun-2008				35.69	3821.68
	6-Feb-2008				NA	NA
14-Nov-2007	16.33	3841.04				
11-Sep-2007	NA	NA				



**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
<b>Mountain View Dairy</b>						
70-01	24-Oct-2012	423303.43	1510585.63	3851.84	34.08	3817.76
	30-Jul-2012				33.80	3818.04
	23-Apr-2012				33.09	3818.75
	26-Jan-2012				32.29	3819.55
	8-Dec-2011				32.40	3819.44
	9-Jul-2011				31.77	3820.07
	20-Apr-2011				30.69	3821.15
	17-Jan-2011				29.72	3822.12
	14-Sep-2010				30.19	3821.65
	24-Jun-2010				29.30	3822.54
	22-Mar-2010				Unable to open well	
	8-Dec-2009				29.75	3822.09
	28-Aug-2009				30.08	3821.76
	26-May-2009				29.88	3821.96
	11-Dec-2008				29.13	3822.71
	27-Sep-2008				29.79	3822.05
	10-Jun-2008				30.20	3821.64
	5-Feb-2008				29.10	3822.74
	13-Nov-2007				29.25	3822.59
	12-Sep-2007				29.77	3822.07
70-02	24-Oct-2012	423412.73	1511192.51	3861.25	43.66	3817.59
	30-Jul-2012				43.33	3817.92
	23-Apr-2012				42.60	3818.65
	26-Jan-2012				41.81	3819.44
	8-Dec-2011				41.89	3819.36
	19-Jul-2011				41.52	3819.73
	20-Apr-2011				40.46	3820.79
	17-Jan-2011				38.90	3822.35
	14-Sep-2010				39.96	3821.29
	24-Jun-2010				39.01	3822.24
	22-Mar-2010				39.54	3821.71
	8-Dec-2009				39.42	3821.83
	28-Aug-2009				39.81	3821.44
	26-May-2009				39.56	3821.69
	11-Dec-2008				38.84	3822.41
	27-Sep-2008				39.20	3822.05
	10-Jun-2008				39.90	3821.35
	6-Feb-2008				39.77	3821.48
	14-Nov-2007				39.01	3822.24
	11-Sep-2007				39.60	3821.65
<b>Buena Vista Dairy I</b>						
86-01	24-Oct-2012	421534.62	1511667.76	3864.96	47.61	3817.35
	30-Jul-2012				47.26	3817.70
	23-Apr-2012				46.86	3818.10
	30-Jan-2012				46.34	3818.62
	8-Dec-2011				46.22	3818.74
	19-Jul-2011				45.66	3819.30
	20-Apr-2011				44.28	3820.68
	17-Jan-2011				44.30	3820.66
	16-Sep-2010				44.09	3820.87
	24-Jun-2010				44.39	3820.57
	22-Mar-2010				44.19	3820.77
	8-Dec-2009				43.89	3821.07
	28-Aug-2009				43.96	3821.00
	26-May-2009				44.03	3820.93
	11-Dec-2008				43.53	3821.43
	28-Sep-2008				43.60	3821.36
	10-Jun-2008				44.44	3820.52
	5-Feb-2008				43.69	3821.27
	13-Nov-2007				43.78	3821.18
	12-Sep-2007				44.21	3820.75

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
86-02	24-Oct-2012	421792.08	1510881.53	3848.08	29.71	3818.37
	30-Jul-2012				29.71	3818.37
	23-Apr-2012				29.43	3818.65
	30-Jan-2012				28.94	3819.14
	8-Dec-2011				28.77	3819.31
	19-Jul-2011				27.74	3820.34
	20-Apr-2011				27.18	3820.90
	17-Jan-2011				26.34	3821.74
	16-Sep-2010				26.18	3821.90
	24-Jun-2010				26.79	3821.29
	22-Mar-2010				26.54	3821.54
	8-Dec-2009				26.33	3821.75
	28-Aug-2009				26.11	3821.97
	26-May-2009				26.29	3821.79
	11-Dec-2008				25.77	3822.31
	28-Sep-2008				25.78	3822.3
	10-Jun-2008				26.65	3821.43
5-Feb-2008	26.95	3821.13				
13-Nov-2007	25.88	3822.2				
12-Sep-2007	26.19	3821.89				
<b>Bright Star Dairy</b>						
340-01	24-Oct-2012	421410.13	1511423.42	3858.48	40.82	3817.66
	30-Jul-2012				40.44	3818.04
	23-Apr-2012				40.16	3818.32
	25-Jan-2012				39.70	3818.78
	8-Dec-2011				39.54	3818.94
	19-Jul-2011				38.74	3819.74
	20-Apr-2011				38.14	3820.34
	17-Jan-2011				37.33	3821.15
	14-Sep-2010				37.20	3821.28
	24-Jun-2010				38.05	3820.43
	22-Mar-2010				37.48	3821.00
	8-Dec-2009				37.26	3821.22
	28-Aug-2009				37.10	3821.38
	26-May-2009				37.26	3821.22
	11-Dec-2008				36.79	3821.69
	27-Sep-2008				36.77	3821.71
	10-Jun-2008				37.63	3820.85
6-Feb-2008	37.03	3821.45				
14-Nov-2007	37.00	3821.48				
11-Sep-2007	37.36	3821.12				
340-02	24-Oct-2012	420641.08	1512051.57	3869.76	52.26	3817.50
	30-Jul-2012				51.67	3818.09
	23-Apr-2012				51.61	3818.15
	25-Jan-2012				51.31	3818.45
	8-Dec-2011				51.07	3818.69
	19-Jul-2011				50.24	3819.52
	20-Apr-2011				48.86	3820.90
	17-Jan-2011				49.00	3820.76
	14-Sep-2010				48.80	3820.96
	24-Jun-2010				49.67	3820.09
	22-Mar-2010				49.17	3820.59
	8-Dec-2009				49.03	3820.73
	28-Aug-2009				48.79	3820.97
	26-May-2009				48.94	3820.82
	11-Dec-2008				48.62	3821.14
	28-Sep-2008				48.48	3821.28
	10-Jun-2008				49.30	3820.46
5-Feb-2008	48.90	3820.86				
14-Nov-2007	48.84	3820.92				
12-Sep-2007	49.28	3820.48				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
Former D&J Dairy (Dominguez 2)						
42-02	24-Oct-2012	419982.45	1511126.19	3844.69	25.91	3818.78
	31-Jul-2012				25.05	3819.64
	23-Apr-2012				25.46	3819.23
	26-Jan-2012				25.71	3818.98
	8-Dec-2011				25.35	3819.34
	19-Jul-2011				23.15	3821.54
	19-Apr-2011				22.80	3821.89
	18-Jan-2011				23.30	3821.39
	15-Sep-2010				22.34	3822.35
	24-Jun-2010				22.84	3821.85
	22-Mar-2010				23.16	3821.53
	8-Dec-2009				22.87	3821.82
	28-Aug-2009				22.43	3822.26
	26-May-2009				22.73	3821.96
	11-Dec-2008				22.91	3821.78
	27-Sep-2008				22.28	3822.41
	10-Jun-2008				23.12	3821.57
6-Feb-2008	23.43	3821.26				
13-Nov-2007	23.00	3821.69				
12-Sep-2007	23.15	3821.54				
42-03	24-Oct-2012	419710.55	1514064.35	3898.46	82.70	3815.76
	31-Jul-2012				82.49	3815.97
	23-Apr-2012				81.57	3816.89
	25-Jan-2012				81.18	3817.28
	8-Dec-2011				81.26	3817.20
	19-Jul-2011				81.33	3817.13
	19-Apr-2011				80.21	3818.25
	18-Jan-2011				79.33	3819.13
	15-Sep-2010				79.91	3818.55
	24-Jun-2010				81.12	3817.34
	22-Mar-2010				79.57	3818.89
	8-Dec-2009				79.12	3819.34
	28-Aug-2009				79.26	3819.20
	26-May-2009				79.42	3819.04
	11-Dec-2008				78.89	3819.57
	27-Sep-2008				78.91	3819.55
	10-Jun-2008				79.91	3818.55
6-Feb-2008	79.76	3818.70				
13-Nov-2007	79.15	3819.31				
12-Sep-2007	79.71	3818.75				
42-06	24-Oct-2012	420021.61	1511465.15	3850.15	31.80	3818.35
	31-Jul-2012				31.15	3819.00
	23-Apr-2012				31.37	3818.78
	25-Jan-2012				31.51	3818.64
	8-Dec-2011				31.19	3818.96
	19-Jul-2011				29.37	3820.78
	19-Apr-2011				29.66	3820.49
	18-Jan-2011				29.18	3820.97
	15-Sep-2010				28.36	3821.79
	24-Jun-2010				28.96	3821.19
	22-Mar-2010				29.04	3821.11
	8-Dec-2009				28.90	3821.25
	28-Aug-2009				28.44	3821.71
	26-May-2009				28.70	3821.45
	11-Dec-2008				28.75	3821.40
	27-Sep-2008				28.27	3821.88
	10-Jun-2008				29.03	3821.12
6-Feb-2008	29.24	3820.91				
13-Nov-2007	28.87	3821.28				
12-Sep-2007	29.03	3821.12				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
42-07	24-Oct-2012	420584.8	1513076.66	3891.52	Dry	
	31-Jul-2012				Dry	
	23-Apr-2012				Dry	
	25-Jan-2012				Dry	
	8-Dec-2011				Dry	
	19-Jul-2011				Dry	
	19-Apr-2011				72.19	3819.33
	18-Jan-2011				71.37	3820.15
	15-Sep-2010				71.64	3819.88
	24-Jun-2010				72.24	3819.28
	22-Mar-2010				71.43	3820.09
	8-Dec-2009				71.26	3820.26
	28-Aug-2009				71.26	3820.26
	26-May-2009				71.31	3820.21
	11-Dec-2008				70.87	3820.65
	27-Sep-2008				70.95	3820.57
	10-Jun-2008				71.71	3819.81
6-Feb-2008	71.00	3820.52				
13-Nov-2007	71.12	3820.40				
12-Sep-2007	71.61	3819.91				
42-08	24-Oct-2012	419994.93	1511197.91	3846.53	27.92	3818.61
	31-Jul-2012				27.11	3819.42
	23-Apr-2012				27.51	3819.02
	26-Jan-2012				27.68	3818.85
	8-Dec-2011				27.33	3819.20
	19-Jul-2011				25.24	3821.29
	19-Apr-2011				25.72	3820.81
	18-Jan-2011				25.28	3821.25
	15-Sep-2010				24.37	3822.16
	24-Jun-2010				24.91	3821.62
	22-Mar-2010				25.15	3821.38
	8-Dec-2009				24.91	3821.62
	28-Aug-2009				24.46	3822.07
	26-May-2009				24.75	3821.78
	11-Dec-2008				24.88	3821.65
	27-Sep-2008				24.30	3822.23
	10-Jun-2008				25.13	3821.40
6-Feb-2008	25.41	3821.12				
13-Nov-2007	25.00	3821.53				
12-Sep-2007	25.13	3821.40				
42-09	24-Oct-2012	419729.17	1512255.76	3865.25	47.29	3817.96
	31-Jul-2012				46.98	3818.27
	23-Apr-2012				46.93	3818.32
	25-Jan-2012				46.95	3818.30
	8-Dec-2011				46.76	3818.49
	19-Jul-2011				45.54	3819.71
	19-Apr-2011				45.38	3819.87
	18-Jan-2011				44.87	3820.38
	15-Sep-2010				44.21	3821.04
	24-Jun-2010				44.99	3820.26
	22-Mar-2010				44.72	3820.53
	8-Dec-2009				44.70	3820.55
	28-Aug-2009				44.32	3820.93
	26-May-2009				44.50	3820.75
	11-Dec-2008				44.39	3820.86
	27-Sep-2008				44.12	3821.13
	10-Jun-2008				44.77	3820.48
6-Feb-2008	44.80	3820.45				
13-Nov-2007	44.47	3820.78				
12-Sep-2007	44.73	3820.52				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
42-10	24-Oct-2012	421426.39	1514460.4	3929.28	112.95	3816.33
	31-Jul-2012				112.87	3816.41
	23-Apr-2012				111.87	3817.41
	25-Jan-2012				110.98	3818.30
	8-Dec-2011				111.16	3818.12
	19-Jul-2011				111.21	3818.07
	19-Apr-2011				110.06	3819.22
	18-Jan-2011				109.19	3820.09
	15-Sep-2010				110.24	3819.04
	27-Jun-2010				110.35	3818.93
	22-Mar-2010				109.47	3819.81
	8-Dec-2009				109.41	3819.87
	28-Aug-2009				109.67	3819.61
	26-May-2009				109.53	3819.75
	11-Dec-2008				109.00	3820.28
	27-Sep-2008				109.49	3819.79
	11-Jun-2008				109.88	3819.40
6-Feb-2008	108.98	3820.30				
14-Nov-2007	109.36	3819.92				
12-Sep-2007	109.92	3819.36				
42-11	24-Oct-2012	420693.98	1515270.32	3939.31	123.44	3815.87
	31-Jul-2012				123.11	3816.20
	23-Apr-2012				122.09	3817.22
	25-Jan-2012				121.67	3817.64
	8-Dec-2011				121.83	3817.48
	19-Jul-2011				121.73	3817.58
	19-Apr-2011				120.64	3818.67
	18-Jan-2011				120.01	3819.30
	15-Sep-2010				121.02	3818.29
	27-Jun-2010				121.05	3818.26
	22-Mar-2010				120.18	3819.13
	8-Dec-2009				120.21	3819.10
	28-Aug-2009				120.51	3818.80
	26-May-2009				120.35	3818.96
	11-Dec-2008				119.88	3819.43
	27-Sep-2008				120.29	3819.02
	11-Jun-2008				120.57	3818.74
6-Feb-2008	119.84	3819.47				
14-Nov-2007	120.24	3819.07				
12-Sep-2007	120.74	3818.57				
42-12	24-Oct-2012	420972.09	1515423.88	3945.83	129.74	3816.09
	31-Jul-2012				129.44	3816.39
	23-Apr-2012				128.71	3817.12
	25-Jan-2012				128.06	3817.77
	8-Dec-2011				128.14	3817.69
	19-Jul-2011				128.01	3817.82
	19-Apr-2011				126.37	3819.46
	18-Jan-2011				126.37	3819.46
	15-Sep-2010				127.38	3818.45
	27-Jun-2010				127.43	3818.40
	22-Mar-2010				126.50	3819.33
	8-Dec-2009				126.60	3819.23
	28-Aug-2009				126.84	3818.99
	26-May-2009				126.68	3819.15
	11-Dec-2008				126.18	3819.65
	27-Sep-2008				126.68	3819.15
	11-Jun-2008				126.88	3818.95
6-Feb-2008	126.16	3819.67				
14-Nov-2007	126.55	3819.28				
12-Sep-2007	127.04	3818.79				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
42-13	24-Oct-2012	419734.06	1512534.42	3873.10	55.40	3817.70
	31-Jul-2012				55.17	3817.93
	23-Apr-2012				54.96	3818.14
	25-Jan-2012				54.99	3818.11
	8-Dec-2011				54.83	3818.27
	19-Jul-2011				53.77	3819.33
	19-Apr-2011				53.50	3819.60
	18-Jan-2011				52.95	3820.15
	15-Sep-2010				52.44	3820.66
	24-Jun-2010				53.21	3819.89
	22-Mar-2010				52.84	3820.26
	8-Dec-2009				52.79	3820.31
	28-Aug-2009				52.45	3820.65
	26-May-2009				52.64	3820.46
	11-Dec-2008				52.49	3820.61
	27-Sep-2008				52.23	3820.87
	10-Jun-2008				52.91	3820.19
6-Feb-2008	52.84	3820.26				
13-Nov-2007	52.56	3820.54				
12-Sep-2007	52.83	3820.27				
<b>Dominguez Dairy</b>						
624-01	24-Oct-2012	418826.21	1512131.46	3843.72	25.89	3817.83
	30-Jul-2012				26.12	3817.60
	24-Apr-2012				26.02	3817.70
	25-Jan-2012				25.51	3818.21
	7-Dec-2011				25.19	3818.53
	19-Jul-2011				23.22	3820.50
	19-Apr-2011				23.75	3819.97
	18-Jan-2011				23.53	3820.19
	15-Sep-2010				21.40	3822.32
	24-Jun-2010				22.48	3821.24
	22-Mar-2010				22.83	3820.89
	8-Dec-2009				23.33	3820.39
	28-Aug-2009				22.72	3821.00
	27-May-2009				22.92	3820.80
	11-Dec-2008				23.11	3820.61
	27-Sep-2008				22.62	3821.10
	10-Jun-2008				22.72	3821.00
5-Feb-2008	23.64	3820.08				
13-Nov-2007	22.87	3820.85				
12-Sep-2007	22.94	3820.78				
624-02	24-Oct-2012	417335.25	1512201.42	3835.45	18.85	3816.60
	30-Jul-2012				18.59	3816.86
	23-Apr-2012				17.97	3817.48
	24-Jan-2012				17.16	3818.29
	7-Dec-2011				17.30	3818.15
	19-Jul-2011				15.23	3820.22
	19-Apr-2011				15.94	3819.51
	17-Jan-2011				15.66	3819.79
	20-Sep-2010				14.04	3821.41
	24-Jun-2010				13.93	3821.52
	22-Mar-2010				15.24	3820.21
	8-Dec-2009				15.61	3819.84
	28-Aug-2009				14.85	3820.60
	27-May-2009				15.14	3820.31
	11-Dec-2008				15.47	3819.98
	27-Sep-2008				14.97	3820.48
	10-Jun-2008				14.87	3820.58
5-Feb-2008	16.50	3818.95				
13-Nov-2007	15.40	3820.05				
12-Sep-2007	14.94	3820.51				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
624-04	24-Oct-2012	418542.24	1508104.07	3835.69	Dry	
	30-Jul-2012				Dry	
	23-Apr-2012				Dry	
	25-Jan-2012				Dry	
	8-Dec-2011				Dry	
	19-Jul-2011				15.39	3820.30
	19-Apr-2011				13.66	3822.03
	18-Jan-2011				13.99	3821.70
	15-Sep-2010				11.43	3824.26
	24-Jun-2010				13.49	3822.20
	22-Mar-2010				14.83	3820.86
	8-Dec-2009				13.48	3822.21
	28-Aug-2009				12.49	3823.20
	26-May-2009				12.89	3822.80
	11-Dec-2008				12.99	3822.70
	27-Sep-2008				12.31	3823.38
	10-Jun-2008				14.45	3821.24
	5-Feb-2008				14.13	3821.56
13-Nov-2007	13.60	3822.09				
12-Sep-2007	14.83	3820.86				
624-05	24-Oct-2012	419777.52	1509829.65	3835.27	16.35	3818.92
	30-Jul-2012				15.89	3819.38
	23-Apr-2012				15.90	3819.37
	25-Jan-2012				15.81	3819.46
	7-Dec-2011				15.25	3820.02
	3-Aug-2011				13.38	3821.89
	19-Apr-2011				13.86	3821.41
	18-Jan-2011				13.11	3822.16
	15-Sep-2010				12.01	3823.26
	24-Jun-2010				12.71	3822.56
	22-Mar-2010				13.21	3822.06
	8-Dec-2009				12.54	3822.73
	28-Aug-2009				12.03	3823.24
	26-May-2009				12.58	3822.69
	11-Dec-2008				12.82	3822.45
	27-Sep-2008				11.97	3823.30
	10-Jun-2008				13.19	3822.08
	5-Feb-2008				13.44	3821.83
13-Nov-2007	13.01	3822.26				
12-Sep-2007	13.31	3821.96				
624-06	24-Oct-2012	418502.42	1513981.08	3868.18	51.99	3816.19
	30-Jul-2012				51.30	3816.88
	23-Apr-2012				51.83	3816.35
	25-Jan-2012				51.80	3816.38
	13-Dec-2011				50.89	3817.29
	19-Jul-2011				50.43	3817.75
	19-Apr-2011				49.79	3818.39
	18-Jan-2011				49.31	3818.87
	21-Sep-2010				48.73	3819.45
	24-Jun-2010				50.33	3817.85
	22-Mar-2010				49.62	3818.56
	8-Dec-2009				48.96	3819.22
	28-Aug-2009				48.87	3819.31
	26-May-2009				49.14	3819.04
	11-Dec-2008				48.89	3819.29
	27-Sep-2008				48.71	3819.47
	10-Jun-2008				49.67	3818.51
	5-Feb-2008				49.11	3819.07
13-Nov-2007	48.94	3819.24				
12-Sep-2007	49.17	3819.01				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
624-07	24-Oct-2012	418012.23	1514707.77	3872.25	55.58	3816.67
	30-Jul-2012				55.47	3816.78
	23-Apr-2012				Dry	
	25-Jan-2012				55.50	3816.75
	13-Dec-2011				55.46	3816.79
	19-Jul-2011				54.55	3817.70
	19-Apr-2011				54.64	3817.61
	18-Jan-2011				53.91	3818.34
	15-Sep-2010				52.30	3819.95
	24-Jun-2010				55.27	3816.98
	22-Mar-2010				54.21	3818.04
	8-Dec-2009				53.32	3818.93
	28-Aug-2009				53.22	3819.03
	26-May-2009				53.76	3818.49
	11-Dec-2008				53.59	3818.66
	27-Sep-2008				53.35	3818.90
	10-Jun-2008				54.34	3817.91
	5-Feb-2008				53.81	3818.44
	13-Nov-2007				53.26	3818.99
	12-Sep-2007				53.03	3819.22
624-08	24-Oct-2012	421461.78	1507712.04	3838.70	Dry	
	30-Jul-2012				Dry	
	23-Apr-2012				Dry	
	25-Jan-2012				Dry	
	8-Dec-2011				Dry	
	3-Aug-2011				Dry	
	18-Apr-2011				17.72	3820.98
	18-Jan-2011				16.03	3822.67
	14-Sep-2010				14.83	3823.87
	24-Jun-2010				16.44	3822.26
	22-Mar-2010				16.42	3822.28
	8-Dec-2009				16.02	3822.68
	28-Aug-2009				15.20	3823.50
	26-May-2009				15.54	3823.16
	11-Dec-2008				14.96	3823.74
	27-Sep-2008				14.84	3823.86
	10-Jun-2008				16.12	3822.58
	5-Feb-2008				15.37	3823.33
	13-Nov-2007				14.71	3823.99
	12-Sep-2007				15.33	3823.37
<b>Gonzalez Dairy</b>						
177-01	25-Oct-2012	417300.94	1512942.63	3834.27	15.91	3818.36
	30-Jul-2012				14.88	3819.39
	23-Apr-2012				16.32	3817.95
	26-Jan-2012				16.71	3817.56
	7-Dec-2011				16.36	3817.91
	19-Jul-2011				14.64	3819.63
	19-Apr-2011				14.84	3819.43
	17-Jan-2011				14.43	3819.84
	15-Sep-2010				13.30	3820.97
	23-Jun-2010				14.11	3820.16
	22-Mar-2010				14.75	3819.52
	8-Dec-2009				14.68	3819.59
	28-Aug-2009				14.16	3820.11
	26-May-2009				14.35	3819.92
	10-Dec-2008				14.64	3819.63
	27-Sep-2008				14.21	3820.06
	10-Jun-2008				14.50	3819.77
6-Feb-2008	15.06	3819.21				
13-Nov-2007	14.53	3819.74				
13-Sep-2007	14.03	3820.24				



**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
177-02	25-Oct-2012	416738.21	1513246.51	3834.66	17.35	3817.31
	30-Jul-2012				17.80	3816.86
	24-Jan-2012				17.61	3817.05
	7-Dec-2011				16.92	3817.74
	19-Jul-2011				15.41	3819.25
	19-Apr-2011				15.47	3819.19
	17-Jan-2011				14.94	3819.72
	15-Sep-2010				14.23	3820.43
	23-Jun-2010				14.86	3819.80
	22-Mar-2010				15.59	3819.07
	8-Dec-2009				15.29	3819.37
	28-Aug-2009				14.90	3819.76
	26-May-2009				15.09	3819.57
	10-Dec-2008				15.37	3819.29
	27-Sep-2008				14.95	3819.71
	10-Jun-2008				15.41	3819.25
	6-Feb-2008				15.74	3818.92
13-Nov-2007	15.39	3819.27				
13-Sep-2007	14.72	3819.94				
177-03A	25-Oct-2012	416206.71	1513777.17	3835.75	19.18	3816.57
	30-Jul-2012				18.24	3817.51
	24-Apr-2012				18.57	3817.18
	24-Jan-2012				18.63	3817.12
	13-Dec-2011				18.51	3817.24
177-04	25-Oct-2012	416796.99	1513733.28	3840.33	23.49	3816.84
	30-Jul-2012				22.68	3817.65
	24-Apr-2012				23.36	3816.97
	24-Jan-2012				22.47	3817.86
	7-Dec-2011				22.97	3817.36
	19-Jul-2011				21.66	3818.67
	19-Apr-2011				21.41	3818.92
	17-Jan-2011				21.22	3819.11
	15-Sep-2010				20.36	3819.97
	23-Jun-2010				21.05	3819.28
	22-Mar-2010				21.71	3818.62
	8-Dec-2009				21.14	3819.19
	28-Aug-2009				20.86	3819.47
	27-May-2009				21.13	3819.20
	10-Dec-2008				21.37	3818.96
	27-Sep-2008				20.86	3819.47
	10-Jun-2008				21.63	3818.70
6-Feb-2008	21.59	3818.74				
13-Nov-2007	21.30	3819.03				
13-Sep-2007	20.84	3819.49				
177-05	25-Oct-2012	417302.42	1514116.55	3852.16	35.72	3816.44
	30-Jul-2012				36.39	3815.77
	24-Apr-2012				36.04	3816.12
	24-Jan-2012				35.02	3817.14
	7-Dec-2011				35.19	3816.97
	19-Jul-2011				34.07	3818.09
	19-Apr-2011				32.91	3819.25
	17-Jan-2011				33.72	3818.44
	15-Sep-2010				32.68	3819.48
	23-Jun-2010				33.59	3818.57
	22-Mar-2010				34.10	3818.06
	8-Dec-2009				33.22	3818.94
	28-Aug-2009				32.95	3819.21
	26-May-2009				33.26	3818.90
	10-Dec-2008				33.60	3818.56
	27-Sep-2008				32.95	3819.21
	10-Jun-2008				33.96	3818.20
6-Feb-2008	33.58	3818.58				
13-Nov-2007	33.27	3818.89				
13-Sep-2007	33.12	3819.04				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
177-06	25-Oct-2012	417301.84	1514765.63	3866.02	50.81	3815.21
	30-Jul-2012				51.09	3814.93
	24-Apr-2012				Dry	
	24-Jan-2012				49.40	3816.62
	7-Dec-2011				49.85	3816.17
	19-Jul-2011				49.31	3816.71
	19-Apr-2011				48.92	3817.10
	17-Jan-2011				48.18	3817.84
	15-Sep-2010				47.64	3818.38
	23-Jun-2010				48.79	3817.23
	22-Mar-2010				49.12	3816.90
	8-Dec-2009				47.60	3818.42
	28-Aug-2009				47.53	3818.49
	26-May-2009				48.03	3817.99
	10-Dec-2008				48.72	3817.30
	27-Sep-2008				47.52	3818.50
	10-Jun-2008				49.31	3816.71
	6-Feb-2008				48.00	3818.02
13-Nov-2007	48.88	3817.14				
13-Sep-2007	48.84	3817.18				
177-07R	25-Oct-2012	415240.93	1515476.47	3858.91	43.98	3814.93
	30-Jul-2012				43.60	3815.31
	24-Apr-2012				43.56	3815.35
	24-Jan-2012				43.08	3815.83
	7-Dec-2011				43.46	3815.45
	19-Jul-2011				42.91	3816.00
	19-Apr-2011				41.96	3816.95
177-07	17-Jan-2011	415258.95	1515471.64	3859.96	Dry	
	15-Sep-2010				Dry	
	23-Jun-2010				Dry	
	22-Mar-2010				Dry	
	8-Dec-2009				Dry	
	10-Dec-2008				Dry	
	27-Sep-2008				Dry	
	10-Jun-2008				Dry	
	6-Feb-2008				Dry	
	13-Nov-2007				Dry	
13-Sep-2007	Dry					
CENTRAL AREA						
Buena Vista Dairy II						
74-01	25-Oct-2012	405434.93	1519310.15	3841.01	34.94	3806.07
	31-Jul-2012				34.53	3806.48
	24-Apr-2012				34.27	3806.74
	24-Jan-2012				33.36	3807.65
	8-Dec-2011				33.63	3807.38
	19-Jul-2011				33.31	3807.70
	20-Apr-2011				31.97	3809.04
	21-Jan-2011				32.23	3808.78
	16-Sep-2010				31.97	3809.04
	23-Jun-2010				32.08	3808.93
	22-Mar-2010				32.07	3808.94
	8-Dec-2009				31.45	3809.56
	28-Aug-2009				32.20	3808.81
	26-May-2009				32.20	3808.81
	10-Dec-2008				31.31	3809.70
	27-Sep-2008				31.64	3809.37
	10-Jun-2008				32.00	3809.01
	5-Feb-2008				31.66	3809.35
14-Nov-2007	31.21	3809.80				
12-Sep-2007	31.63	3809.38				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
<b>Buena Vista Diary II Continued</b>						
74-02	25-Oct-2012	404574.08	1519035.52	3820.58	16.02	3804.56
	31-Jul-2012				15.09	3805.49
	24-Apr-2012				14.30	3806.28
	24-Jan-2012				13.96	3806.62
	8-Dec-2011				15.49	3805.09
	19-Jul-2011				14.19	3806.39
	20-Apr-2011				12.45	3808.13
	17-Jan-2011				12.53	3808.05
	16-Sep-2010				12.45	3808.13
	23-Jun-2010				12.87	3807.71
	22-Mar-2010				12.72	3807.86
	8-Dec-2009				11.88	3808.70
	28-Aug-2009				12.53	3808.05
	26-May-2009				12.70	3807.88
	10-Dec-2008				11.65	3808.93
	27-Sep-2008				12.03	3808.55
10-Jun-2008	12.39	3808.19				
5-Feb-2008	11.94	3808.64				
14-Nov-2007	11.52	3809.06				
12-Sep-2007	12.33	3808.25				
74-03	25-Oct-2012	407163.61	1516711.72	3823.36	14.22	3809.14
	31-Jul-2012				14.17	3809.19
	24-Apr-2012				13.99	3809.37
	24-Jan-2012				13.60	3809.76
	8-Dec-2011				13.70	3809.66
	19-Jul-2011				13.17	3810.19
	20-Apr-2011				12.11	3811.25
	17-Jan-2011				12.63	3810.73
	16-Sep-2010				12.41	3810.95
	23-Jun-2010				12.72	3810.64
	22-Mar-2010				12.94	3810.42
	8-Dec-2009				12.88	3810.48
	28-Aug-2009				12.63	3810.73
	26-May-2009				12.94	3810.42
	10-Dec-2008				13.00	3810.36
	27-Sep-2008				12.94	3810.42
10-Jun-2008	12.66	3810.7				
5-Feb-2008	12.94	3810.42				
14-Nov-2007	12.77	3810.59				
12-Sep-2007	12.53	3810.83				
74-04	25-Oct-2012	405488.65	1519864.48	3853.17	46.96	3806.21
	31-Jul-2012				47.16	3806.01
	24-Apr-2012				47.05	3806.12
	24-Jan-2012				45.78	3807.39
	8-Dec-2011				45.98	3807.19
	19-Jul-2011				45.61	3807.56
	20-Apr-2011				44.19	3808.98
	17-Jan-2011				44.02	3809.15
	16-Sep-2010				44.19	3808.98
	23-Jun-2010				44.26	3808.91
	22-Mar-2010				44.25	3808.92
	8-Dec-2009				43.86	3809.31
	28-Aug-2009				44.49	3808.68
	26-May-2009				44.56	3808.61
	10-Dec-2008				43.70	3809.47
	27-Sep-2008				43.99	3809.18
10-Jun-2008	44.40	3808.77				
5-Feb-2008	43.41	3809.76				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
74-05	25-Oct-2012	404747.71	1519885.3	3845.35	40.33	3805.02
	31-Jul-2012				40.19	3805.16
	24-Apr-2012				40.05	3805.30
	24-Jan-2012				38.78	3806.57
	8-Dec-2011				39.18	3806.17
	19-Jul-2011				38.84	3806.51
	20-Apr-2011				37.99	3807.36
	17-Jan-2011				36.96	3808.39
	16-Sep-2010				37.00	3808.35
	23-Jun-2010				37.44	3807.91
	22-Mar-2010				37.23	3808.12
	8-Dec-2009				36.74	3808.61
	28-Aug-2009				37.32	3808.03
	26-May-2009				37.47	3807.88
	10-Dec-2008				36.53	3808.82
	27-Sep-2008				36.88	3808.47
10-Jun-2008	37.39	3807.96				
5-Feb-2008	36.77	3808.58				
<b>River Valley Dairy</b>						
167-01	25-Oct-2012	402518.37	1518459.71	3818.94	17.23	3801.71
	31-Jul-2012				16.91	3802.03
	24-Apr-2012				16.01	3802.93
	24-Jan-2012				14.60	3804.34
	8-Dec-2011				15.06	3803.88
	19-Jul-2011				16.81	3802.13
	25-Apr-2011				14.51	3804.43
	17-Jan-2011				12.33	3806.61
	15-Sep-2010				12.19	3806.75
	25-Jun-2010				13.31	3805.63
	22-Mar-2010				13.46	3805.48
	8-Dec-2009				12.11	3806.83
	28-Aug-2009				11.99	3806.95
	26-May-2009				12.43	3806.51
	10-Dec-2008				12.13	3806.81
	27-Sep-2008				12.09	3806.85
10-Jun-2008	12.95	3805.99				
5-Feb-2008	12.62	3806.32				
14-Nov-2007	12.68	3806.26				
167-01A	25-Oct-2012	402518.18	1518936.72	3818.88	17.38	3801.50
	31-Jul-2012				17.08	3801.80
	24-Apr-2012				16.29	3802.59
	24-Jan-2012				14.59	3804.29
	13-Dec-2011				15.13	3803.75
	19-Jul-2011				16.04	3802.84
	25-Apr-2011				14.13	3804.75
	17-Jan-2011				12.38	3806.50
	15-Sep-2010				12.21	3806.67
	22-Jun-2010				13.74	3805.14
	22-Mar-2010				13.22	3805.66
	8-Dec-2009				12.17	3806.71
	28-Aug-2009				12.23	3806.65
	26-May-2009				12.62	3806.26
	10-Dec-2008				12.03	3806.85
	27-Sep-2008				12.18	3806.70
10-Jun-2008	13.16	3805.72				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
167-02	25-Oct-2012	402498.3	1519354.81	3819.64	Dry	
	31-Jul-2012				Dry	
	24-Apr-2012				Dry	
	24-Jan-2012				15.84	3803.80
	8-Dec-2011				15.92	3803.72
	19-Jul-2011				Dry	
	25-Apr-2011				13.48	3806.16
	17-Jan-2011				13.49	3806.15
	15-Sep-2010				13.68	3805.96
	22-Jun-2010				15.23	3804.41
	22-Mar-2010				14.69	3804.95
	8-Dec-2009				13.32	3806.32
	28-Aug-2009				13.65	3805.99
	26-May-2009				13.86	3805.78
	10-Dec-2008				13.43	3806.21
	27-Sep-2008				13.71	3805.93
	10-Jun-2008				14.70	3804.94
	5-Feb-2008				13.54	3806.10
14-Nov-2007	13.65	3805.99				
11-Sep-2007	13.98	3805.66				
167-03	25-Oct-2012	402981.73	1519415.73	3825.66	23.49	3802.17
	31-Jul-2012				22.63	3803.03
	24-Apr-2012				21.97	3803.69
	24-Jan-2012				20.94	3804.72
	8-Dec-2011				21.73	3803.93
	19-Jul-2011				23.22	3802.44
	25-Apr-2011				18.78	3806.88
	17-Jan-2011				18.86	3806.80
	15-Sep-2010				18.81	3806.85
	22-Jun-2010				19.90	3805.76
	22-Mar-2010				19.71	3805.95
	8-Dec-2009				18.62	3807.04
	28-Aug-2009				18.90	3806.76
	27-May-2009				19.26	3806.40
	10-Dec-2008				18.41	3807.25
	27-Sep-2008				18.72	3806.94
	10-Jun-2008				19.82	3805.84
	5-Feb-2008				18.64	3807.02
14-Nov-2007	18.55	3807.11				
11-Sep-2007	19.02	3806.64				
167-04	25-Oct-2012	402032.19	1519884.6	3827.60	25.60	3802.00
	31-Jul-2012				25.19	3802.41
	24-Apr-2012				25.05	3802.55
	24-Jan-2012				23.36	3804.24
	8-Dec-2011				24.01	3803.59
	19-Jul-2011				24.36	3803.24
	25-Apr-2011				21.23	3806.37
	17-Jan-2011				21.18	3806.42
	15-Sep-2010				Well Damaged	
	22-Jun-2010				Well Damaged	
	22-Mar-2010				Well Damaged	
	8-Dec-2009				Well Damaged	
	28-Aug-2009				21.57	3806.03
	26-May-2009				21.60	3806.00
	10-Dec-2008				21.01	3806.59
	27-Sep-2008				21.01	3806.59
	10-Jun-2008				22.20	3805.40
	5-Feb-2008				21.51	3806.09
14-Nov-2007	21.44	3806.16				
11-Sep-2007	21.68	3805.92				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
167-05	25-Oct-2012	397947.44	1520446.03	3815.44	15.74	3799.70
	31-Jul-2012				15.60	3799.84
	24-Apr-2012				14.99	3800.45
	30-Jan-2012				13.86	3801.58
	13-Dec-2011				14.10	3801.34
	19-Jul-2011				13.69	3801.75
	19-Apr-2011				12.97	3802.47
	17-Jan-2011				11.90	3803.54
	15-Sep-2010				11.52	3803.92
	25-Jun-2010				12.43	3803.01
	22-Mar-2010				12.22	3803.22
	8-Dec-2009				11.96	3803.48
	28-Aug-2009				11.63	3803.81
	26-May-2009				11.45	3803.99
	10-Dec-2008				11.54	3803.90
	27-Sep-2008				11.20	3804.24
	10-Jun-2008				12.65	3802.79
	5-Feb-2008				12.36	3803.08
14-Nov-2007	12.77	3802.67				
11-Sep-2007	12.91	3802.53				
167-06	25-Oct-2012	404479.35	1519603.88	3834.84	30.12	3804.72
	31-Jul-2012				30.29	3804.55
	24-Apr-2012				29.84	3805.00
	24-Jan-2012				28.48	3806.36
	8-Dec-2011				29.10	3805.74
	19-Jul-2011				28.75	3806.09
	25-Apr-2011				26.71	3808.13
	17-Jan-2011				26.73	3808.11
	15-Sep-2010				26.70	3808.14
	22-Jun-2010				27.17	3807.67
	22-Mar-2010				27.02	3807.82
	8-Dec-2009				26.40	3808.44
	28-Aug-2009				26.96	3807.88
	26-May-2009				27.15	3807.69
	10-Dec-2008				26.18	3808.66
	27-Sep-2008				26.54	3808.30
	10-Jun-2008				27.10	3807.74
	5-Feb-2008				26.46	3808.38
14-Nov-2007	26.60	3808.24				
11-Sep-2007	26.74	3808.10				
167-07	25-Oct-2012	402562.23	1518480.34	3819.08	16.30	3802.78
	31-Jul-2012				16.09	3802.99
	24-Apr-2012				15.84	3803.24
	24-Jan-2012				14.54	3804.54
	8-Dec-2011				15.45	3803.63
	25-Jul-2011				15.39	3803.69
	25-Apr-2011				14.95	3804.13
	17-Jan-2011				12.39	3806.69
	15-Sep-2010				11.98	3807.10
	22-Jun-2010				12.94	3806.14
	22-Mar-2010				13.03	3806.05
	8-Dec-2009				12.18	3806.90
	28-Aug-2009				12.06	3807.02
	26-May-2009				12.56	3806.52
	10-Dec-2008				12.24	3806.84
27-Sep-2008	12.20	3806.88				
10-Jun-2008	13.00	3806.08				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
167-08	25-Oct-2012	399352.96	1519889.65	3817.96	17.72	3800.24
	31-Jul-2012				17.60	3800.36
	24-Apr-2012				16.71	3801.25
	24-Jan-2012				15.25	3802.71
	8-Dec-2011				15.52	3802.44
	19-Jul-2011				15.59	3802.37
	19-Apr-2011				13.95	3804.01
	17-Jan-2011				13.42	3804.54
	15-Sep-2010				12.92	3805.04
	25-Jun-2010				14.69	3803.27
	22-Mar-2010				13.73	3804.23
	8-Dec-2009				13.46	3804.50
	28-Aug-2009				13.23	3804.73
	26-May-2009				12.87	3805.09
	10-Dec-2008				13.42	3804.54
	27-Sep-2008				NM	NM
10-Jun-2008	14.02	3803.94				
167-09	25-Oct-2012	398473.95	1519259.34	3817.00	15.31	3801.69
	31-Jul-2012				15.04	3801.96
	24-Apr-2012				15.12	3801.88
	24-Jan-2012				14.60	3802.40
	8-Dec-2011				14.42	3802.58
	19-Jul-2011				13.17	3803.83
	19-Apr-2011				12.78	3804.22
	17-Jan-2011				12.70	3804.30
	15-Sep-2010				11.95	3805.05
	25-Jun-2010				13.01	3803.99
	22-Mar-2010				12.88	3804.12
	8-Dec-2009				12.82	3804.18
	28-Aug-2009				12.43	3804.57
	26-May-2009				12.44	3804.56
	10-Dec-2008				12.78	3804.22
	27-Sep-2008				12.07	3804.93
10-Jun-2008	12.94	3804.06				
<b>Big Sky Dairy</b>						
833-01	25-Oct-2012	399617.23	1521136.33	3839.55	Dry	
	1-Aug-2012				Dry	
	24-Apr-2012				Dry	
	24-Jan-2012				Dry	
	8-Dec-2011				Dry	
	18-Jul-2011				Dry	
	19-Apr-2001				35.44	3804.11
	17-Jan-2011				35.20	3804.35
	14-Sep-2010				34.76	3804.79
	22-Jun-2010				36.08	3803.47
	22-Mar-2010				35.49	3804.06
	8-Dec-2009				35.25	3804.30
	28-Aug-2009				35.25	3804.30
	26-May-2009				34.69	3804.86
	10-Dec-2008				34.99	3804.56
	28-Sep-2008				34.58	3804.97
	10-Jun-2008				36.13	3803.42
	5-Feb-2008				35.51	3804.04
14-Nov-2007	35.70	3803.85				
12-Sep-2007	35.79	3803.76				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
833-02	25-Oct-2012	401200.32	1520639.92	3836.04	34.61	3801.43
	1-Aug-2012				34.90	3801.14
	24-Apr-2012				33.49	3802.55
	24-Jan-2012				34.01	3802.03
	8-Dec-2011				33.08	3802.96
	18-Jul-2011				32.92	3803.12
	19-Apr-2011				31.92	3804.12
	17-Jan-2011				30.43	3805.61
	14-Sep-2010				30.34	3805.70
	22-Jun-2010				31.37	3804.67
	22-Mar-2010				30.87	3805.17
	8-Dec-2009				30.40	3805.64
	28-Aug-2009				30.58	3805.46
	26-May-2009				30.24	3805.80
	10-Dec-2008				30.13	3805.91
	28-Sep-2008				29.80	3806.24
	10-Jun-2008				31.21	3804.83
	5-Feb-2008				30.63	3805.41
14-Nov-2007	30.60	3805.44				
12-Sep-2007	30.63	3805.41				
833-03	25-Oct-2012	401392.09	1521955.23	3867.06	Dry	
	1-Aug-2012				Dry	
	24-Apr-2012				Dry	
	24-Jan-2012				Dry	
	8-Dec-2011				Dry	
	18-Jul-2011				Dry	
	19-Apr-2011				61.92	3805.14
	17-Jan-2011				61.02	3806.04
	14-Sep-2010				60.91	3806.15
	22-Jun-2010				61.90	3805.16
	22-Mar-2010				61.41	3805.65
	8-Dec-2009				61.16	3805.90
	28-Aug-2009				61.50	3805.56
	26-May-2009				61.26	3805.80
	10-Dec-2008				60.76	3806.30
	28-Sep-2008				61.59	3805.47
	10-Jun-2008				61.83	3805.23
	5-Feb-2008				61.11	3805.95
14-Nov-2007	61.08	3805.98				
12-Sep-2007	61.11	3805.95				
833-04	25-Oct-2012	402898.52	1520659.33	3845.79	41.83	3803.96
	1-Aug-2012				42.70	3803.09
	24-Apr-2012				42.32	3803.47
	24-Jan-2012				40.87	3804.92
	8-Dec-2011				41.55	3804.24
	18-Jul-2011				41.05	3804.74
	19-Apr-2011				39.24	3806.55
	17-Jan-2011				38.80	3806.99
	14-Sep-2010				38.84	3806.95
	22-Jun-2010				39.19	3806.60
	22-Mar-2010				39.13	3806.66
	8-Dec-2009				38.85	3806.94
	28-Aug-2009				39.24	3806.55
	26-May-2009				39.31	3806.48
	10-Dec-2008				38.41	3807.38
	28-Sep-2008				38.42	3807.37
	10-Jun-2008				39.46	3806.33
	5-Feb-2008				38.61	3807.18
14-Nov-2007	38.54	3807.25				
12-Sep-2007	38.96	3806.83				



**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
833-05	25-Oct-2012	399712.39	1522374.73	3865.51	64.60	3800.91
	1-Aug-2012				65.01	3800.50
	24-Apr-2012				64.40	3801.11
	24-Jan-2012				63.60	3801.91
	8-Dec-2011				63.63	3801.88
	18-Jul-2011				63.23	3802.28
	19-Apr-2011				62.33	3803.18
	24-Jan-2011				61.90	3803.61
	14-Sep-2010				61.05	3804.46
	22-Jun-2010				61.97	3803.54
	22-Mar-2010				61.52	3803.99
	8-Dec-2009				61.39	3804.12
	28-Aug-2009				61.52	3803.99
	26-May-2009				61.14	3804.37
	10-Dec-2008				61.07	3804.44
	28-Sep-2008				60.99	3804.52
10-Jun-2008	62.28	3803.23				
5-Feb-2008	61.52	3803.99				
833-06	25-Oct-2012	402219.48	1522652.04	3878.20	73.93	3804.27
	1-Aug-2012				74.06	3804.14
	24-Apr-2012				73.97	3804.23
	24-Jan-2012				73.50	3804.70
	8-Dec-2011				73.41	3804.79
	18-Jul-2011				72.93	3805.27
	25-Apr-2011				72.16	3806.04
	17-Jan-2011				71.43	3806.77
	14-Sep-2010				72.05	3806.15
	22-Jun-2010				72.08	3806.12
	22-Mar-2010				72.00	3806.20
	8-Dec-2009				71.92	3806.28
	28-Aug-2009				72.22	3805.98
	26-May-2009				72.02	3806.18
	10-Dec-2008				70.95	3807.25
	28-Sep-2008				70.87	3807.33
10-Jun-2008	71.78	3806.42				
5-Feb-2008	71.47	3806.73				
833-07	25-Oct-2012	399298.8	1522082.75	3860.70	60.22	3800.48
	1-Aug-2012				60.63	3800.07
	24-Apr-2012				60.25	3800.45
	24-Jan-2012				59.71	3800.99
	8-Dec-2011				59.26	3801.44
	18-Jul-2011				58.99	3801.71
	19-Apr-2011				57.95	3802.75
	17-Jan-2011				56.87	3803.83
	14-Sep-2010				56.61	3804.09
	22-Jun-2010				57.55	3803.15
	22-Mar-2010				57.05	3803.65
	8-Dec-2009				56.94	3803.76
	28-Aug-2009				57.02	3803.68
	26-May-2009				56.64	3804.06
	10-Dec-2008				56.58	3804.12
	28-Sep-2008				58.53	3802.17
10-Jun-2008	57.88	3802.82				
5-Feb-2008	57.11	3803.59				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
833-08	25-Oct-2012	400535.64	1521938.23	3861.76	59.75	3802.01
	1-Aug-2012				60.24	3801.52
	24-Apr-2012				59.81	3801.95
	24-Jan-2012				58.86	3802.90
	8-Dec-2011				58.96	3802.80
	18-Jul-2011				58.36	3803.40
	25-Apr-2011				56.54	3805.22
	17-Jan-2011				56.55	3805.21
	14-Sep-2010				56.34	3805.42
	22-Jun-2010				57.32	3804.44
	22-Mar-2010				56.83	3804.93
	8-Dec-2009				56.63	3805.13
	28-Aug-2009				56.83	3804.93
	26-May-2009				56.41	3805.35
	10-Dec-2008				56.34	3805.42
	28-Sep-2008				56.07	3805.69
10-Jun-2008	57.46	3804.30				
5-Feb-2008	56.78	3804.98				
833-09	25-Oct-2012	398280.67	1520918.52	3826.27	26.30	3799.97
	1-Aug-2012				27.21	3799.06
	24-Apr-2012				26.44	3799.83
	24-Jan-2012				25.42	3800.85
	8-Dec-2011				25.08	3801.19
	18-Jul-2011				25.41	3800.86
	25-Apr-2011				22.86	3803.41
	17-Jan-2011				22.87	3803.40
	15-Sep-2010				22.56	3803.71
	22-Jun-2010				23.99	3802.28
	22-Mar-2010				23.20	3803.07
	8-Dec-2009				22.87	3803.40
	28-Aug-2009				22.67	3803.60
	26-May-2009				22.40	3803.87
	10-Dec-2008				22.65	3803.62
	28-Sep-2008				22.18	3804.09
10-Jun-2008	23.71	3802.56				
5-Feb-2008	23.23	3803.04				
833-10	25-Oct-2012	396715.89	1520283.6	3820.76	20.93	3799.83
	1-Aug-2012				21.01	3799.75
	24-Apr-2012				21.11	3799.65
	24-Jan-2012				20.14	3800.62
	8-Dec-2011				19.95	3800.81
	18-Jul-2011				19.23	3801.53
	19-Apr-2011				18.67	3802.09
	17-Jan-2011				17.80	3802.96
	15-Sep-2010				17.29	3803.47
	22-Jun-2010				18.80	3801.96
	22-Mar-2010				18.38	3802.38
	8-Dec-2009				17.72	3803.04
	28-Aug-2009				17.22	3803.54
	26-May-2009				17.40	3803.36
	10-Dec-2008				17.71	3803.05
	28-Sep-2008				16.98	3803.78
10-Jun-2008	18.17	3802.59				
5-Feb-2008	18.11	3802.65				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
<b>Sunset/Desert Land Dairy</b>						
257-01	26-Oct-2012	395856.31	1520572.16	3820.33	21.04	3799.29
	1-Aug-2012				20.82	3799.51
	24-Apr-2012				21.01	3799.32
	24-Jan-2012				20.09	3800.24
	8-Dec-2011				20.18	3800.15
	18-Jul-2011				19.75	3800.58
	19-Apr-2011				18.52	3801.81
	18-Jan-2011				17.83	3802.50
	15-Sep-2010				17.15	3803.18
	22-Jun-2010				18.15	3802.18
	22-Mar-2010				18.40	3801.93
	8-Dec-2009				17.66	3802.67
	28-Aug-2009				16.99	3803.34
	26-May-2009				17.41	3802.92
	10-Dec-2008				17.87	3802.46
	27-Sep-2008				16.75	3803.58
10-Jun-2008	17.88	3802.45				
5-Feb-2008	17.59	3802.74				
14-Nov-2007	18.53	3801.80				
12-Sep-2007	18.10	3802.23				
257-02	26-Oct-2012	394728.34	1521030.29	3813.67	15.06	3798.61
	1-Aug-2012				14.91	3798.76
	24-Apr-2012				15.27	3798.40
	24-Jan-2012				13.90	3799.77
	8-Dec-2011				14.38	3799.29
	19-Jul-2011				13.50	3800.17
	19-Apr-2011				12.59	3801.08
	18-Jan-2011				11.84	3801.83
	15-Sep-2010				10.86	3802.81
	22-Jun-2010				11.08	3802.59
	22-Mar-2010				12.22	3801.45
	8-Dec-2009				11.52	3802.15
	28-Aug-2009				10.86	3802.81
	26-May-2009				11.38	3802.29
	10-Dec-2008				11.67	3802.00
	27-Sep-2008				9.75	3803.92
10-Jun-2008	11.82	3801.85				
5-Feb-2008	11.67	3802.00				
14-Nov-2007	12.22	3801.45				
12-Sep-2007	11.55	3802.12				
257-03	26-Oct-2012	397935.69	1518746.14	3814.74	11.61	3803.13
	1-Aug-2012				10.06	3804.68
	24-Apr-2012				11.56	3803.18
	24-Jan-2012				10.89	3803.85
	1-Nov-2011				11.29	3803.45
	18-Jul-2011				8.77	3805.97
	19-Apr-2011				9.31	3805.43
	17-Jan-2011				10.04	3804.70
	21-Sep-2010				9.26	3805.48
	22-Jun-2010				9.11	3805.63
	22-Mar-2010				10.45	3804.29
	8-Dec-2009				9.78	3804.96
	28-Aug-2009				9.43	3805.31
	26-May-2009				9.55	3805.19
	10-Dec-2008				10.26	3804.48
	27-Sep-2008				9.73	3805.01
10-Jun-2008	9.70	3805.04				
5-Feb-2008	11.04	3803.70				
14-Nov-2007	9.03	3805.71				
12-Sep-2007	9.61	3805.13				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
257/260-01	26-Oct-2012	397678.36	1519948.22	3814.04	13.36	3800.68
	1-Aug-2012				13.05	3800.99
	24-Apr-2012				12.98	3801.06
	30-Jan-2012				12.26	3801.78
	1-Nov-2011				12.79	3801.25
	18-Jul-2011				10.65	3803.39
	26-Apr-2011				11.66	3802.38
	17-Jan-2011				10.44	3803.60
	15-Sep-2010				9.94	3804.10
	22-Jun-2010				10.90	3803.14
	22-Mar-2010				10.71	3803.33
	8-Dec-2009				10.42	3803.62
	28-Aug-2009				10.11	3803.93
	26-May-2009				10.00	3804.04
	10-Dec-2008				10.48	3803.56
	27-Sep-2008				9.80	3804.24
	10-Jun-2008				11.00	3803.04
5-Feb-2008	10.99	3803.05				
14-Nov-2007	11.21	3802.83				
12-Sep-2007	NM	NM				
<b>Additional Wells</b>						
Bruce1	18-Jul-2011	388741.02	1523777.06	3808.92	Destroyed	
	19-Apr-2011				11.17	3797.75
	17-Jan-2011				11.13	3797.79
	15-Sep-2010				10.38	3798.54
	23-Jun-2010				10.99	3797.93
	21-Mar-2010				11.50	3797.42
	8-Dec-2009				11.05	3797.87
	27-Aug-2009				10.41	3798.51
	27-May-2009				10.77	3798.15
	10-Dec-2008				11.28	3797.64
	27-Sep-2008				10.93	3797.99
	10-Jun-2008				11.28	3797.64
	5-Feb-2008				11.47	3797.45
Bruce2	5-Feb-2008	NM	NM	NM	Destroyed	
	10-Jun-2008				8.33	--
<b>SOUTHERN AREA</b>						
<b>Del Oro Dairy</b>						
692-01	26-Oct-2012	373615.88	1531529.38	3844.13	60.10	3784.03
	1-Aug-2012				58.79	3785.34
	24-Apr-2012				58.43	3785.70
	25-Jan-2012				78.58	Pumping
	9-Dec-2011				58.19	3785.94
	18-Jul-2011				57.79	3786.34
	19-Apr-2011				57.39	3786.74
	18-Jan-2011				57.17	3786.96
	15-Sep-2010				57.57	3786.56
	30-Jun-2010				61.15	Pumping
	22-Mar-2010				58.01	3786.12
	9-Dec-2009				58.25	3785.88
	29-Aug-2009				58.19	3785.94
	26-May-2009				57.80	3786.33
	11-Dec-2008				Pumping	NM
	28-Sep-2008				Pumping	NM
	11-Jun-2008				57.75	3786.38
	6-Feb-2008				57.42	3786.71
	14-Nov-2007				57.38	3786.75
13-Sep-2007	57.46	3786.67				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
692-02	25-Oct-2012	372984.72	1531192.1	3840.84	56.48	3784.36
	1-Aug-2012				56.03	3784.81
	24-Apr-2012				55.71	3785.13
	25-Jan-2012				54.70	3786.14
	13-Dec-2011				54.94	3785.90
	18-Jul-2011				55.10	3785.74
	19-Apr-2011				54.68	3786.16
	18-Jan-2011				54.32	3786.52
	15-Sep-2010				54.39	3786.45
	30-Jun-2010				54.50	3786.34
	22-Mar-2010				54.90	3785.94
	9-Dec-2009				55.11	3785.73
	28-Aug-2009				55.03	3785.81
	26-May-2009				55.38	3785.46
	11-Dec-2008				54.93	3785.91
	28-Sep-2008				54.69	3786.15
	11-Jun-2008				54.93	3785.91
	6-Feb-2008				54.74	3786.10
	14-Nov-2007				54.42	3786.42
	13-Sep-2007				54.61	3786.23
692-04	25-Oct-2012	372982.53	1531555.21	3842.66	57.62	3785.04
	1-Aug-2012				57.34	3785.32
	24-Apr-2012				57.13	3785.53
	25-Jan-2012				56.34	3786.32
	9-Dec-2011				56.91	3785.75
	18-Jul-2011				56.92	3785.74
	19-Apr-2011				56.47	3786.19
	18-Jan-2011				56.15	3786.51
	15-Sep-2010				55.90	3786.76
	30-Jun-2010				56.81	3785.85
	22-Mar-2010				56.81	3785.85
	8-Dec-2009				56.86	3785.80
	28-Aug-2009				56.82	3785.84
	26-May-2009				57.09	3785.57
	11-Dec-2008				56.71	3785.95
	28-Sep-2008				56.41	3786.25
	11-Jun-2008				56.54	3786.12
	6-Feb-2008				56.40	3786.26
	14-Nov-2007				55.95	3786.71
	13-Sep-2007				56.19	3786.47
692-05	26-Oct-2012	374807.26	1532403	3854.26	79.11	3775.15
	1-Aug-2012				78.80	3775.46
	24-Apr-2012				77.96	3776.30
	24-Jan-2012				76.80	3777.46
	9-Dec-2011				77.39	3776.87
	18-Jul-2011				77.59	3776.67
	19-Apr-2011				76.46	3777.80
	18-Jan-2011				75.55	3778.71
	15-Sep-2010				76.14	3778.12
	30-Jun-2010				76.20	3778.06
	22-Mar-2010				75.01	3779.25
	9-Dec-2009				75.52	3778.74
	28-Aug-2009				76.15	3778.11
	26-May-2009				75.65	3778.61
	11-Dec-2008				74.95	3779.31
	28-Sep-2008				75.36	3778.90
	11-Jun-2008				75.72	3778.54
	6-Feb-2008				74.84	3779.42
	14-Nov-2007				75.90	3778.36
	13-Sep-2007				75.84	3778.42

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
692-06	26-Oct-2012	375054.77	1532411.83	3856.48	81.03	3775.45
	1-Aug-2012				80.69	3775.79
	24-Apr-2012				79.84	3776.64
	30-Jan-2012				78.99	3777.49
	9-Dec-2011				79.32	3777.16
	18-Jul-2011				79.43	3777.05
	19-Apr-2011				78.32	3778.16
	18-Jan-2011				77.44	3779.04
	15-Sep-2010				78.02	3778.46
	30-Jun-2010				78.12	3778.36
	22-Mar-2010				76.91	3779.57
	9-Dec-2009				77.44	3779.04
	28-Aug-2009				78.04	3778.44
	26-May-2009				77.53	3778.95
	11-Dec-2008				76.79	3779.69
	28-Sep-2008				77.25	3779.23
	11-Jun-2008				77.60	3778.88
6-Feb-2008	76.76	3779.72				
14-Nov-2007	77.80	3778.68				
13-Sep-2007	77.75	3778.73				
692-07	26-Oct-2012	374944.88	1532019.81	3848.20	72.78	3775.42
	1-Aug-2012				72.60	3775.60
	24-Apr-2012				71.84	3776.36
	24-Jan-2012				70.30	3777.90
	13-Dec-2011				70.54	3777.66
	18-Jul-2011				71.32	3776.88
	19-Apr-2011				70.22	3777.98
	18-Jan-2011				69.01	3779.19
	15-Sep-2010				69.72	3778.48
	30-Jun-2010				69.87	3778.33
	22-Mar-2010				68.59	3779.61
	9-Dec-2009				68.97	3779.23
	28-Aug-2009				69.71	3778.49
	26-May-2009				69.35	3778.85
	11-Dec-2008				68.38	3779.82
	28-Sep-2008				68.99	3779.21
	11-Jun-2008				69.35	3778.85
6-Feb-2008	68.44	3779.76				
14-Nov-2007	69.46	3778.74				
13-Sep-2007	69.46	3778.74				
692-08	26-Oct-2012	375535.69	1531378.09	3843.09	67.17	3775.92
	1-Aug-2012				66.47	3776.62
	24-Apr-2012				65.84	3777.25
	30-Jan-2012				64.58	3778.51
	9-Dec-2011				64.65	3778.44
	18-Jul-2011				65.79	3777.30
	19-Apr-2011				64.32	3778.77
	18-Jan-2011				62.49	3780.60
	1-Oct-2010				63.83	3779.26
	30-Jun-2010				63.71	3779.38
	22-Mar-2010				62.45	3780.64
	9-Dec-2009				62.57	3780.52
	28-Aug-2009				63.42	3779.67
	26-May-2009				64.03	3779.06
	11-Dec-2008				61.83	3781.26
	28-Sep-2008				63.42	3779.67
	11-Jun-2008				63.40	3779.69
6-Feb-2008	62.02	3781.07				
14-Nov-2007	63.25	3779.84				
13-Sep-2007	64.02	3779.07				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
692-09	26-Oct-2012	373575.83	1532395.09	3856.32	82.18	3774.14
	1-Aug-2012				82.11	3774.21
	24-Apr-2012				81.17	3775.15
	25-Jan-2012				79.80	3776.52
	8-Dec-2011				80.44	3775.88
	18-Jul-2011				80.78	3775.54
	19-Apr-2011				79.65	3776.67
	17-Jan-2011				78.52	3777.80
	15-Sep-2010				79.33	3776.99
	30-Jun-2010				79.52	3776.80
	22-Mar-2010				78.13	3778.19
	9-Dec-2009				78.79	3777.53
	28-Aug-2009				79.48	3776.84
	26-May-2009				78.89	3777.43
	11-Dec-2008				78.11	3778.21
	28-Sep-2008				78.55	3777.77
	11-Jun-2008				79.03	3777.29
	6-Feb-2008				78.16	3778.16
14-Nov-2007	79.15	3777.17				
13-Sep-2007	79.93	3776.39				
<b>Anthony Waste Water Treatment Plant</b>						
MW-1	26-Oct-2012	372097.86	1532364.36	3843.03	58.85	3784.18
	2-Aug-2012				58.79	3784.24
	25-Apr-2012				58.28	3784.75
	9-Dec-2011				58.01	3785.02
	18-Jul-2011				58.44	3784.59
	20-Apr-2011				58.35	3784.68
	18-Jan-2011				58.20	3784.83
	15-Sep-2010				58.28	3784.75
	24-Jun-2010				58.50	3784.53
	22-Mar-2010				58.43	3784.60
	9-Dec-2009				58.15	3784.88
	28-Aug-2009				58.07	3784.96
	27-May-2009				58.41	3784.62
	MW-2				26-Oct-2012	NM
2-Aug-2012		60.30	3782.95			
25-Apr-2012		59.94	3783.31			
30-Jan-2012		59.30	3783.95			
9-Dec-2011		59.33	3783.92			
18-Jul-2011		59.41	3783.84			
20-Apr-2011		59.42	3783.83			
18-Jan-2011		59.31	3783.94			
15-Sep-2010		59.08	3784.17			
24-Jun-2010		59.37	3783.88			
22-Mar-2010		59.44	3783.81			
9-Dec-2009		59.19	3784.06			
28-Aug-2009		58.98	3784.27			
27-May-2009		59.45	3783.80			
MW-3	26-Oct-2012	NM	NM	3841.24	57.98	3783.26
	2-Aug-2012				57.81	3783.43
	25-Apr-2012				57.32	3783.92
	30-Jan-2012				56.80	3784.44
	8-Dec-2011				56.87	3784.37
	18-Jul-2011				56.98	3784.26
	19-Apr-2011				56.93	3784.31
	18-Jan-2011				56.73	3784.51
	15-Sep-2010				Could not access	
	24-Jun-2010				56.91	3784.33
	22-Mar-2010				56.93	3784.31
	9-Dec-2009				56.69	3784.55
	28-Aug-2009				56.54	3784.70
	27-May-2009				56.96	3784.28

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
<b>ABATEMENT PLAN MONITOR WELLS</b>						
DAD-01	29-Oct-2012	422970.59	1512825.76	3886.16	68.12	3818.04
	30-Jul-2012				68.97	3817.19
	23-Apr-2012				68.19	3817.97
	25-Jan-2012				67.15	3819.01
	8-Dec-2011				67.41	3818.75
	19-Jul-2011				67.41	3818.75
	25-Apr-2011				65.86	3820.30
	18-Jan-2011				65.37	3820.79
	16-Sep-2010				65.86	3820.30
	24-Jun-2010				66.58	3819.58
	21-Mar-2010				65.46	3820.70
	9-Dec-2009				65.32	3820.84
	29-Aug-2009				65.68	3820.48
	26-May-2009				65.43	3820.73
DAD-02	29-Oct-2012	413002.98	1517319.93	3875.82	64.11	3811.71
	31-Jul-2012				64.03	3811.79
	24-Apr-2012				63.45	3812.37
	25-Jan-2012				62.91	3812.91
	8-Dec-2011				63.07	3812.75
	19-Jul-2011				62.63	3813.19
	18-Apr-2011				62.11	3813.71
	17-Jan-2011				61.37	3814.45
	16-Sep-2010				61.79	3814.03
	25-Jun-2010				62.95	3812.87
	21-Mar-2010				61.43	3814.39
	9-Dec-2009				61.46	3814.36
	29-Aug-2009				61.65	3814.17
	26-May-2009				61.59	3814.23
DAD-03	29-Oct-2012	407721.31	1516497.85	3820.58	10.93	3809.65
	31-Jul-2012				10.90	3809.68
	24-Apr-2012				10.97	3809.61
	25-Jan-2012				10.60	3809.98
	8-Dec-2011				10.70	3809.88
	19-Jul-2011				10.29	3810.29
	18-Apr-2011				10.12	3810.46
	24-Jan-2011				9.36	3811.22
	16-Sep-2010				9.40	3811.18
	24-Jun-2010				9.97	3810.61
	21-Mar-2010				9.90	3810.68
	9-Dec-2009				9.79	3810.79
	29-Aug-2009				9.72	3810.86
	26-May-2009				9.89	3810.69
DAD-04	29-Oct-2012	404576.66	1517413.28	3821.47	15.10	3806.37
	31-Jul-2012				14.37	3807.10
	24-Apr-2012				14.27	3807.20
	25-Jan-2012				13.40	3808.07
	8-Dec-2011				13.84	3807.63
	19-Jul-2011				13.63	3807.84
	18-Apr-2011				13.21	3808.26
	17-Jan-2011				12.71	3808.76
	16-Sep-2010				12.14	3809.33
	23-Jun-2010				12.59	3808.88
	21-Mar-2010				12.88	3808.59
	9-Dec-2009				12.10	3809.37
	29-Aug-2009				12.13	3809.34
	26-May-2009				12.31	3809.16



**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
DAD-05	29-Oct-2012	396712.87	1519102.06	3816.01	14.85	3801.16
	2-Aug-2012				14.17	3801.84
	24-Apr-2012				14.14	3801.87
	25-Jan-2012				14.11	3801.90
	8-Dec-2011				14.05	3801.96
	18-Jul-2011				12.31	3803.70
	18-Apr-2011				12.58	3803.43
	17-Jan-2011				12.50	3803.51
	16-Sep-2010				11.87	3804.14
	23-Jun-2010				12.95	3803.06
	21-Mar-2010				12.92	3803.09
	9-Dec-2009				12.13	3803.88
	29-Aug-2009				11.85	3804.16
	26-May-2009				12.07	3803.94
DAD-06	29-Oct-2012	404273.19	1522081.00	3887.71	82.47	3805.24
	1-Aug-2012				82.20	3805.51
	24-Apr-2012				82.13	3805.58
	25-Jan-2012				81.32	3806.39
	8-Dec-2011				81.55	3806.16
	18-Jul-2011				80.94	3806.77
	20-Apr-2011				80.16	3807.55
	17-Jan-2011				79.43	3808.28
	16-Sep-2010				79.68	3808.03
	25-Jun-2010				80.33	3807.38
	21-Mar-2010				79.85	3807.86
	9-Dec-2009				79.95	3807.76
	29-Aug-2009				80.46	3807.25
	26-May-2009				80.32	3807.39
DAD-07	29-Oct-2012	399270.18	1524320.88	3891.38	90.34	3801.04
	2-Aug-2012				90.38	3801.00
	24-Apr-2012				90.25	3801.13
	25-Jan-2012				89.75	3801.63
	8-Dec-2011				89.35	3802.03
	18-Jul-2011				88.98	3802.40
	20-Apr-2011				88.34	3803.04
	17-Jan-2011				87.94	3803.44
	16-Sep-2010				88.29	3803.09
	25-Jun-2010				88.49	3802.89
	21-Mar-2010				88.00	3803.38
	9-Dec-2009				88.19	3803.19
	29-Aug-2009				88.45	3802.93
	26-May-2009				88.14	3803.24
DAD-08	29-Oct-2012	395287.38	1522575.07	3849.15	49.86	3799.29
	1-Aug-2012				50.34	3798.81
	24-Apr-2012				50.34	3798.81
	25-Jan-2012				49.62	3799.53
	13-Dec-2011				50.12	3799.03
	18-Jul-2011				49.97	3799.18
	20-Apr-2011				48.87	3800.28
	18-Jan-2011				47.80	3801.35
	17-Sep-2010				47.05	3802.10
	25-Jun-2010				48.06	3801.09
	21-Mar-2010				47.76	3801.39
	9-Dec-2009				47.42	3801.73
	29-Aug-2009				47.18	3801.97
	26-May-2009				47.38	3801.77

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
DAD-09	29-Oct-2012	373259.30	1530905.70	3838.03	54.13	3783.90
	2-Aug-2012				53.86	3784.17
	24-Apr-2012				53.40	3784.63
	25-Jan-2012				52.67	3785.36
	13-Dec-2011				52.62	3785.41
	18-Jul-2011				52.28	3785.75
	18-Apr-2011				51.89	3786.14
	17-Jan-2011				51.09	3786.94
	17-Sep-2010				51.55	3786.48
	29-Jun-2010				52.20	3785.83
	21-Mar-2010				51.84	3786.19
	9-Dec-2009				52.12	3785.91
	29-Aug-2009				52.23	3785.80
	26-May-2009				52.49	3785.54
<b>Abatement Plan Monitor Wells Continued</b>						
DAD-10	29-Oct-2012	372980.55	1532375.33	3854.93	81.02	3773.91
	2-Aug-2012				81.47	3773.46
	24-Apr-2012				80.36	3774.57
	25-Jan-2012				78.76	3776.17
	13-Dec-2011				79.07	3775.86
	18-Jul-2011				80.29	3774.64
	20-Apr-2011				79.13	3775.80
	17-Jan-2011				77.82	3777.11
	17-Sep-2010				78.66	3776.27
	29-Jun-2010				78.59	3776.34
	21-Mar-2010				77.19	3777.74
	9-Dec-2009				77.92	3777.01
	29-Aug-2009				78.72	3776.21
	26-May-2009				77.90	3777.03
DAD-11 (177-03)	29-Oct-2012	416211.35	1513814.71	3835.90	19.07	3816.83
	30-Jul-2012				18.57	3817.33
	24-Apr-2012				19.12	3816.78
	25-Jan-2012				18.40	3817.50
	13-Dec-2011				18.75	3817.15
	19-Jul-2011				17.54	3818.36
	19-Apr-2011				17.31	3818.59
	17-Jan-2011				16.99	3818.91
	15-Sep-2010				16.24	3819.66
	23-Jun-2010				16.53	3819.37
	22-Mar-2010				17.29	3818.61
	8-Dec-2009				16.82	3819.08
	28-Aug-2009				16.63	3819.27
	26-May-2009				16.92	3818.98
	10-Dec-2008				17.05	3818.85
	27-Sep-2008				16.65	3819.25
	10-Jun-2008				17.53	3818.37
6-Feb-2008	17.33	3818.57				
13-Nov-2007	17.19	3818.71				
13-Sep-2007	16.61	3819.29				
DAD-12	29-Oct-2012	419731.54	1512274.77	3866.72	48.96	3817.76
	31-Jul-2012				48.59	3818.13
	23-Apr-2011				48.44	3818.28
	25-Jan-2012				48.01	3818.71
	6-Dec-2011				48.15	3818.57
DAD-13	29-Oct-2012	417879.08	1515673.13	3898.44	85.39	3813.05
	30-Jul-2012				85.51	3812.93
	23-Apr-2012				83.56	3814.88
	25-Jan-2012				82.72	3815.72
	8-Dec-2011				82.88	3815.56

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATADONA ANA DAIRIES,  
DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
DAD-14	25-Oct-2012	414923.33	1514695.26	3841.90	26.62	3815.28
	30-Jul-2012				25.85	3816.05
	24-Apr-2012				26.07	3815.83
	25-Jan-2012				26.10	3815.80
	8-Dec-2011				26.30	3815.60
DAD-15	29-Oct-2012	402001.22	1523552.04	3897.61	93.78	3803.83
DAD-16	29-Oct-2012	400628.77	1519350.74	3819.28	17.23	3802.05
	31-Jul-2012				18.58	3800.70
	24-Apr-2012				17.64	3801.64
	25-Jan-2012				16.50	3802.78
	8-Dec-2011				16.58	3802.70
DAD-17	29-Oct-2012	393991.97	1520267.94	3817.75	19.18	3798.57
	2-Aug-2012				19.07	3798.68
	24-Apr-2012				21.01	3796.74
	25-Jan-2012				17.74	3800.01
	9-Dec-2011				19.21	3798.54
DAD-18	29-Oct-2012	395714.14	1520588.96	3821.59	22.40	3799.19
	1-Aug-2012				22.43	3799.16
	24-Apr-2012				22.20	3799.39
	25-Jan-2012				21.33	3800.26
	6-Dec-2011				21.43	3800.16
DAD-19	29-Oct-2012	400164.47	1522027.92	3864.50	62.30	3802.20
	1-Aug-2012				63.70	3800.80
	24-Apr-2012				63.31	3801.19
	25-Jan-2012				62.25	3802.25
	6-Dec-2011				62.29	3802.21
DAD-20	7-Nov-2012	371751.45	1531188.19	3833.27	52.18	3781.09
	29-Oct-2012				Obstruction in Well	
	2-Aug-2012				Obstruction in Well	
	25-Apr-2012				Obstruction in Well	
	25-Jan-2012				50.65	3782.62
	6-Dec-2011				50.66	3782.61
DAD-21	29-Oct-2012	374013.39	1530983.98	3839.62	54.60	3785.02
	2-Aug-2012				54.31	3785.31
	24-Apr-2012				53.61	3786.01
	30-Jan-2012				53.44	3786.18
	6-Dec-2011				53.24	3786.38
DAD-22	29-Oct-2012	373029.62	1530352.69	3827.14	44.51	3782.63
	2-Aug-2012				44.23	3782.91
	25-Apr-2012				43.86	3783.28
	25-Jan-2012				43.22	3783.92
	13-Dec-2011				43.27	3783.87

NOTES:

<sup>a</sup> Horizontal control to NM State Plane Coordinates Central NAD83 Grid Coordinates (in feet)

<sup>b</sup> Vertical Control to NAVD88 Datum in feet above mean sea level

<sup>c</sup> Measured in feet below the top of casing at survey point on north side of well

<sup>d</sup> Measured in feet

Wells were gauged on a different date by Magee and Associates Inc.

Wells were gauged on a different date by EnviroCompliance Inc.

Measured data were suspect and corrected to reflect appropriate trends in accordance with surrounding wells

**TABLE 2. SUMMARY OF SAMPLE ANALYTICAL METHODS AND COLLECTION REQUIREMENTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Target Analytes	Analytical Method	Sample Container	Preservative	Holding Time
<b>Groundwater Samples</b>				
Nitrate/Nitrite	EPA 300.0/SM 4500 NO3 E	250 mL HDPE Bottle	H <sub>2</sub> SO <sub>4</sub> to pH,2, Cool to <6°C,	28 Days
Total Kjeldhal Nitrogen	SM 4500 NORG C	250 mL HDPE Bottle	H <sub>2</sub> SO <sub>4</sub> to pH,2, Cool to <6°C,	28 Days
Chloride	EPA 300.0	250 mL HDPE Bottle	Cool to <6°C	28 Days
Total Dissolved Solids	SM 2540 C MOD	250 mL HDPE Bottle	Cool to <6°C	28 Days
NOTES: °C = Degree Celsius ASTM = American Society for Testing and Materials EPA = U.S. Environmental Protection Agency HDPE = High-density polyethylene				

**TABLE 3. ABATEMENT PLAN MONITORING WELLS GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)	Sulfate (mg/l)	
<b>Abatement Plan Monitoring Wells</b>							
DAD-01	3-Dec-12	10.7	<1.72	348	1,800	NA	
	21-Aug-12	9.98	<1.72	373	1,640	NA	
	9-May-12	6.88	2.80	401	1,660	NA	
	31-Jan-12	9.90	2.52	439	1,520	NA	
	27-Oct-11	9.56	3.50	436	1,840	256	
	20-Jul-11	12.0	2.38	426	1,650	NA	
	20-Apr-11	10.3	<2.17	460	1,710	NA	
	24-Jan-11	19.8	3.50	408	1,820	NA	
	16-Sep-10	7.56	<10.0	439	1,800	NA	
	29-Jun-10	8.55	<1.0	491	2,120	NA	
	21-Mar-10	6.3	<5.0	500	1,780	NA	
	NMED Split	9-Dec-09	7.5	1.5	550	2,010	NA
		9-Dec-09	7.3	2.8	468	356	264
		29-Aug-09	7.3	<5.0	540	1,970	NA
12-May-09		5.6	<1.0	540	1,800	NA	
DAD-02	3-Dec-12	8.51	<1.72	345	1,800	NA	
	21-Aug-12	4.39	2.10	301	1,570	NA	
	9-May-12	7.71	<1.72	373	1,830	NA	
	31-Jan-12	7.66	<2.17	335	1,720	NA	
	27-Oct-11	8.30	2.52	380	1,360	475	
	20-Jul-11	7.66	<2.17	374	1,750	NA	
	21-Apr-11	7.97	<2.17	434	1,760	NA	
	24-Jan-11	6.38	2.80	443	2,240	NA	
	16-Sep-10	3.44	<10.0	385	1,790	NA	
	29-Jun-10	8.11	<0.5	364	1,870	NA	
	21-Mar-10	8.1	<1.0	420	1,970	NA	
	NMED Split	9-Dec-09	9.0	<1.0	440	1,920	NA
		9-Dec-09	9	0.39	388	1,970	586
		29-Aug-09	9.9	<2.0	490	1,890	NA
14-May-09		7.4	<5.0	350	1,700	NA	
DAD-03 *	3-Dec-12	1.07	<1.72	1,150	4,760	NA	
	21-Aug-12	<0.0290	2.80	1,090	3,920	NA	
	9-May-12	<0.114	2.66	1,200	4,160	NA	
	31-Jan-12	<0.500	4.34	1,340	4,350	NA	
	26-Oct-11	<0.500	3.22	1,790	5,420	1100	
	20-Jul-11	<1.00	3.22	1,630	4,720	NA	
	21-Apr-11	<0.500	<2.17	1,870	5,600	NA	
	24-Jan-11	<0.00955	4.20	1,590	4,660	NA	
	16-Sep-10	0.217	<10.0	1,370	4,320	NA	
	29-Jun-10	<0.5	6.18	1,570	5,150	NA	
	21-Mar-10	<10	<1.0	2,200	5,620	NA	
	NMED Split	9-Dec-09	<10	<5.0	2,100	5,590	NA
		9-Dec-09	<0.1	0.88	1,570	5,300	1,160
		29-Aug-09	<0.10	<5.0	1,400	4,420	NA
12-May-09		<10	<5.0	1,200	5,000	NA	

**TABLE 3. ABATEMENT PLAN MONITORING WELLS GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)	Sulfate (mg/l)	
DAD-04	5-Dec-12	2.74	<1.72	545	2,430	NA	
	21-Aug-12	<0.0290	<1.72	496	2,620	NA	
	9-May-12	0.305	<1.72	502	1,970	NA	
	31-Jan-12	2.05	<2.17	493	2,320	NA	
	26-Oct-11	<0.500	2.80	590	2,950	380	
	20-Jul-11	<0.500	<2.17	670	2,540	NA	
	20-Apr-11	<0.500	<2.17	584	2,570	NA	
	24-Jan-11	<0.00955	2.66	608	2,400	NA	
	16-Sep-10	<0.100	<10.0	683	2,560	NA	
	29-Jun-10	<0.5	1.4	570	2,330	NA	
	21-Mar-10	<2.0	<2.0	620	2,460	NA	
	NMED Split	9-Dec-09	<2.0	1.7	810	2,720	NA
		9-Dec-09	<0.1	1.2	659	2,630	373
		29-Aug-09	<2.0	<5.0	690	2,690	NA
13-May-09		<2.0	<5.0	690	2,700	NA	
DAD-05	5-Dec-12	3.35	<1.72	690	2,930	NA	
	22-Aug-12	<0.0290	<1.72	544	2,260	NA	
	9-May-12	0.908	2.10	566	2,380	NA	
	1-Feb-12	<0.500	<2.17	558	2,020	NA	
	26-Oct-11	<0.500	2.66	647	900	377	
	20-Jul-11	<0.500	5.04	599	2,460	NA	
	20-Apr-11	<0.500	<2.17	430	1,810	NA	
	20-Jan-11	0.128	2.10	477	1,870	NA	
	16-Sep-10	<2.50	<10.0	536	2,220	NA	
	29-Jun-10	<0.5	1.1	627	2,550	NA	
	21-Mar-10	<2.0	<1.0	630	2,340	NA	
	NMED Split	9-Dec-09	<2.0	1.3	710	2,420	NA
		9-Dec-09	<0.1	0.95	563	2,290	362
		29-Aug-09	<2.0	<2.0	630	2,310	NA
13-May-09		<2.0	<5.0	640	2,700	NA	
Duplicate	13-May-09	<10	1.6	618	2,260	NA	
DAD-06	5-Dec-12	8.25	<1.72	439	1,610	NA	
	21-Aug-12	9.11	2.10	347	1,530	NA	
	9-May-12	11.0	<1.72	375	1,570	NA	
	31-Jan-12	13.6	<2.17	382	1,510	NA	
	27-Oct-11	9.20	<2.17	322	1,060	228	
	20-Jul-11	18.0	3.64	358	1,370	NA	
	21-Apr-11	18.0	<2.17	349	1,330	NA	
	24-Jan-11	12.2	2.10	360	1,270	NA	
	16-Sep-10	9.20	<10.0	359	1,370	NA	
	29-Jun-10	11.6	<2.0	365	1,460	NA	
	21-Mar-10	10	<2.0	390	1,390	NA	
	NMED Split	9-Dec-09	10	<1.0	380	1,380	NA
		9-Dec-09	8.6	0.36	354	1,440	262
		29-Aug-09	8.2	<5.0	390	1,260	NA
14-May-09		11	<5.0	350	1,300	NA	
Duplicate	14-May-09	8.17	0.4	338	1,250	NA	

**TABLE 3. ABATEMENT PLAN MONITORING WELLS GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)	Sulfate (mg/l)	
DAD-07	5-Dec-12	8.03	<1.72	718	2,610	NA	
	22-Aug-12	6.88	<1.72	671	2,540	NA	
	9-May-12	3.81	<1.72	588	2,150	NA	
	31-Jan-12	5.40	<2.17	610	1,640	NA	
	26-Oct-11	5.22	2.24	591	750	426	
	20-Jul-11	4.67	2.80	554	1,880	NA	
	20-Apr-11	4.14	<2.17	525	1,780	NA	
	19-Jan-11	0.410	<2.05	518	1,740	NA	
	16-Sep-10	<2.50	<10.0	637	1,990	NA	
	29-Jun-10	5.17	<0.5	569	2,060	NA	
	21-Mar-10	5.1	<1.0	640	1,970	NA	
	NMED Split	9-Dec-09	5.4	<1.0	620	1,900	NA
		9-Dec-09	5.2	<0.1	536	1,870	403
		29-Aug-09	4.4	<5.0	610	1,780	NA
14-May-09		4.6	<1.0	530	1,800	NA	
DAD-08	5-Dec-12	40.2	<1.72	2,270	5,980	NA	
	22-Aug-12	32.2	<1.72	2,430	7,220	NA	
	9-May-12	2.39	<1.72	1,150	3,260	NA	
	31-Jan-12	2.69	<2.17	1,250	2,990	NA	
	26-Oct-11	2.80	<2.17	1,260	2,500	471	
	20-Jul-11	3.36	3.78	1,320	3,060	NA	
	20-Apr-11	4.33	<2.17	1,300	3,280	NA	
	19-Jan-11	<0.239	2.10	1,240	2,600	NA	
	17-Sep-10	<2.50	<10.0	1,370	3,230	NA	
	29-Jun-10	2.53	<1.0	1,290	5,950	NA	
	21-Mar-10	<4.0	<1.0	1,300	3,270	NA	
	NMED Split	9-Dec-09	<4.0	<1.0	1,400	3,290	NA
		9-Dec-09	3.1	0.26	1,400	3,070	509
		29-Aug-09	<4.0	<2.0	1,500	3,180	NA
14-May-09		3.0	<5.0	1,300	3,600	NA	
DAD-09	4-Dec-12	33.1	<1.72	588	2,200	NA	
	20-Aug-12	48.4	<1.72	656	2,540	NA	
	10-May-12	50.9	<1.72	561	2,270	NA	
	31-Jan-12	59.8	<2.17	622	2,220	NA	
	26-Oct-11	77.7	<2.17	728	1,600	433	
	20-Jul-11	70.2	<2.17	727	2,500	NA	
	20-Apr-11	47.5	<2.17	483	1,910	NA	
	19-Jan-11	42.8	2.38	745	2,600	NA	
	17-Sep-10	22.6	<10.0	204	47	NA	
	29-Jun-10	59.2	<5.0	667	2,240	NA	
	21-Mar-10	29	<5.0	290	1,190	NA	
	NMED Split	9-Dec-09	26	<5.0	300	1,190	NA
		9-Dec-09	22	1.6	228	1,170	152
		29-Aug-09	46	<5.0	640	2,320	NA
13-May-09		44	<5.0	740	2,400	NA	

**TABLE 3. ABATEMENT PLAN MONITORING WELLS GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)	Sulfate (mg/l)	
DAD-10 Vertical Delineation	4-Dec-12	4.33	<1.72	434	1,510	NA	
	20-Aug-12	2.86	<1.72	389	2,520	NA	
	10-May-12	1.52	<1.72	361	1,400	NA	
	31-Jan-12	<0.500	<2.17	433	800	NA	
	26-Oct-11	3.33	2.80	384	1,150	206	
	20-Jul-11	2.29	<2.17	383	1,290	NA	
	20-Apr-11	1.30	<2.17	411	1,340	NA	
	19-Jan-11	12.7	2.10	429	1,140	NA	
	17-Sep-10	2.73	<10.0	404	1,320	NA	
	29-Jun-10	1.28	<1.0	390	1,360	NA	
	21-Mar-10	<2.0	<1.0	420	1,380	NA	
	NMED Split	9-Dec-09	1.4	<1.0	460	1,360	NA
		9-Dec-09	1.5	<0.1	378	1,340	196
		29-Aug-09	1.2	<1.0	420	1,340	NA
14-May-09		<2.0	<1.0	410	1,300	NA	
DAD-11 Vertical Delineation (formerly 177-03)	3-Dec-12	13.4	<1.72	1,210	3,870	NA	
	21-Aug-12	8.71	<1.72	818	3,020	NA	
	14-May-12	0.791	<1.72	359	1,550	NA	
	1-Feb-12	2.38	<2.17	456	1,700	NA	
	27-Oct-11	<0.500	<2.17	434	1,290	215	
	2-Aug-11	<0.500	<2.17	427	1,490	NA	
	5-May-11	<0.500	<2.17	398	1,360	NA	
	25-Jan-11	4.60	<2.05	386	1,500	NA	
	21-Sep-10	3.21	<10.0	369	1,520	NA	
	29-Jun-10	1.6	<1.0	430	1,610	NA	
	28-Apr-10	1.5	<1.0	450	1,600	NA	
	20-Jan-10	1.4	<1.0	460	1,600	NA	
	21-Oct-09	1.0	<1.0	430	1,600	NA	
	7-Jul-09	0.80	<1.0	470	1,500	NA	
6-May-09	0.97	3.5	450	1,600	NA		
22-Jan-09	1.00	<1.0	370	1,600	NA		
DAD-12 Vertical Delineation	3-Dec-12	16.4	<1.72	689	3,070	NA	
	21-Aug-12	17.8	2.10	620	2,990	NA	
	14-May-12	23.1	<1.72	561	2,870	NA	
	1-Feb-12	20.8	<2.17	614	2,670	NA	
	7-Dec-11	18.8	<2.17	597	2,620	616	
DAD-13	3-Dec-12	5.04	<1.72	504	1,810	NA	
	21-Aug-12	3.51	<1.72	420	1,900	NA	
	10-May-12	8.66	<1.72	514	2,010	NA	
	1-Feb-12	7.59	<2.17	537	1,960	NA	
	27-Oct-11	7.51	2.52	536	3,700	321	



**TABLE 3. ABATEMENT PLAN MONITORING WELLS GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)	Sulfate (mg/l)
DAD-14	3-Dec-12	40.3	<1.72	1,150	4,010	NA
	21-Aug-12	33.2	<1.72	919	3,340	NA
	14-May-12	28.8	<1.72	881	3,280	NA
	1-Feb-12	20.3	<2.17	861	2,880	NA
	27-Oct-11	17.2	2.80	835	1,780	447
DAD-15	4-Dec-12	4.71	<1.72	484	1,810	256
	20-Aug-12	2.37	35.0	351	1,330	256
DAD-16	5-Dec-12	2.42	<1.72	529	2,280	NA
	22-Aug-12	<0.0290	<1.72	472	2,000	NA
	14-May-12	0.147	<1.72	378	2,080	NA
	1-Feb-12	<0.500	<2.17	438	1,960	NA
	27-Oct-11	<0.500	3.36	410	1,520	408
DAD-17	5-Dec-12	2.28	<1.72	230	1,260	NA
	22-Aug-12	<0.0290	<1.72	189	930	NA
	10-May-12	<0.114	<1.72	353	1,580	NA
	1-Feb-12	<0.500	3.36	113	714	NA
	26-Oct-11	<0.500	3.50	175	724	186
DAD-18 Vertical Delineation	5-Dec-12	10.1	<1.72	643	2,690	NA
	22-Aug-12	9.03	4.62	642	2,790	NA
	10-May-12	9.11	<1.72	558	2,700	NA
	1-Feb-12	9.62	<2.17	629	2,470	NA
	7-Dec-11	9.21	<2.17	639	2,670	495
DAD-19 Vertical Delineation	5-Dec-12	54.2	<1.72	851	3,230	NA
	21-Aug-12	59.2	<1.72	843	3,470	NA
	10-May-12	54.8	<1.72	835	3,460	NA
	1-Feb-12	59.8	<2.17	913	2,950	NA
	7-Dec-11	47.4	<2.17	789	3,070	544
DAD-20	4-Dec-12	17.0	<1.72	704	2,350	NA
	10-May-12	Obstruction in Well				
	31-Jan-12	21.2	<2.17	568	1,000	NA
	7-Dec-11	16.1	<2.17	611	2,020	383
DAD-21	4-Dec-12	3.47	<1.72	445	1,720	NA
	20-Aug-12	3.45	<1.72	409	1,660	NA
	10-May-12	1.16	<1.72	364	2,840	NA
	31-Jan-12	6.79	2.94	475	1,620	NA
	7-Dec-11	2.14	<2.17	396	1,600	219

**TABLE 3. ABATEMENT PLAN MONITORING WELLS GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)	Sulfate (mg/l)
DAD-22	4-Dec-12	12.0	<1.72	886	2,740	NA
	20-Aug-12	15.3	2.10	878	2,280	NA
	10-May-12	18.3	<1.72	818	1,580	NA
	1-Feb-12	23.6	<2.17	908	3,000	NA
	26-Oct-11	29.5	2.52	781	3,860	494
<b>NMWQCC Standard</b>		<b>10</b>	<b>NA</b>	<b>250</b>	<b>1,000</b>	<b>600</b>
<p>NOTES:            Shading indicates exceedence of NMWQCC standard            NA = Not analyzed            ND = Non detect            NMWQCC = New Mexico Water Quality Control Commission            TDS = Total dissolved solids            TKN = Total Kjeldahl Nitrogen            * = DAD-03 (6-29-10) Roots in sample may have resulted in a measured TKN result.</p>						

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
<b>Northern Area</b>					
<b>Northern Land Application Area</b>					
70-03	7-Nov-12	49.5	<1.72	2,850	7,950
	7-Aug-12	45.3	2.94	2,440	6,700
	25-Apr-12	53.1	5.60	2,540	6,550
	2-Feb-12	67.6	<2.17	2,840	7,480
	7-Nov-11	61.6	<2.17	3,270	7,910
	3-Aug-11	63.1	2.80	3,140	8,040
	21-Apr-11	58.9	<2.17	3,130	8,040
	27-Jan-11	71.2	3.36	3,140	7,580
	22-Sep-10	62.8	<10.0	2,940	7,840
	30-Jun-10	57	<1.0	2,200	5,720
	26-Mar-10	29.6	ND	2,160	5,180
	15-Dec-09	27.1	ND	2,199	5,462
	2-Sep-09	25.4	ND	2,149	5,570
	4-Jun-09	18.6	ND	1,999	5,518
4-Mar-09	35.5	ND	2,074	5,418	
70/86/340-01	5-Nov-12	12.7	<1.72	2,120	4,940
	6-Aug-12	17.1	<1.72	1,870	6,400
	25-Apr-12	11.8	<1.72	1,620	4,280
	2-Feb-12	20.0	8.12	1,750	5,440
	7-Nov-11	25.5	4.76	1,970	5,920
	25-Jul-11	31.0	2.24	1,800	5,500
	21-Apr-11	35.0	<2.17	1,780	5,420
	27-Jan-11	53.5	<2.17	1,370	4,420
	22-Sep-10	39.8	<10.0	1,130	4,000
	30-Jun-10	52	<1.0	1,300	4,090
	26-Mar-10	53	ND	1,200	3,616
	15-Dec-09	64	ND	1,080	3,408
	2-Sep-09	50	ND	1,100	3,610
	4-Jun-09	28	ND	1,410	4,340
4-Mar-09	39.3	ND	1,150	3,820	
86/340-01	5-Nov-12	12.1	<1.72	638	2,860
	6-Aug-12	11.6	<1.72	708	3,410
	25-Apr-12	12.1	<1.72	641	2,480
	2-Feb-12	12.3	<2.17	655	2,960
	7-Nov-11	11.6	3.08	593	2,910
	25-Jul-11	10.2	<2.17	582	2,500
	21-Apr-11	10.4	<2.17	512	2,660
	27-Jan-11	7.99	<2.17	419	2,040
	22-Sep-10	11.8	<10.0	331	2,060
	30-Jun-10	13	<1.0	410	2,190
	26-Mar-10	9.2	0.7	690	2,656
	29-Jan-10	8.6	ND	530	2,258
	2-Sep-09	8.8	ND	510	2,232
	4-Jun-09	5.2	1.12	640	2,582
4-Mar-09	11.9	ND	675	2,674	
<b>Former Daybreak Dairy (Del Norte Dairy)</b>					
126-04	7-Nov-12	16.0	3.50	572	2,500
	7-Aug-12	15.9	2.10	568	2,370
	30-Apr-12	15.7	<1.72	539	2,310
	26-Jan-12	17.4	<2.17	560	1,700
	7-Nov-11	18.2	3.92	581	2,470
	3-Aug-11	18.2	6.44	559	2,460
	22-Apr-11	18.0	5.74	594	2,500
	26-Jan-11	11.1	<2.17	570	2,380
	21-Sep-10	20.5	<10.0	542	2,460
	30-Jun-10	21	<5.0	490	2,160
	25-Mar-10	14.9	0.56	530	1,964
	15-Dec-09	11.5	ND	550	1,974
	2-Sep-09	9	ND	530	2,028
	4-Jun-09	5.81	ND	550	2,084
5-Mar-09	14.1	ND	525	2,122	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
126-05	7-Nov-12	29.2	<1.72	548	2,890
	7-Aug-12	30.8	2.10	548	2,860
	30-Apr-12	28.6	2.38	530	2,840
	26-Jan-12	30.1	<2.17	546	2,520
	4-Nov-11	31.2	<2.17	543	3,510
	4-Aug-11	29.5	4.20	525	2,540
	22-Apr-11	28.0	2.80	615	2,800
	26-Jan-11	25.2	3.64	553	2,870
	21-Sep-10	22.3	<10.0	504	2,240
	30-Jun-10	24	<5.0	540	2,750
	25-Mar-10	13.5	ND	640	2,736
	15-Dec-09	16.6	ND	630	2,554
	2-Sep-09	12.8	1.4	580	2,566
	4-Jun-09	10.1	ND	600	2,640
5-Mar-09	19.9	1.03	610	2,828	
126-07	7-Nov-12	19.8	<1.72	629	2,870
	7-Aug-12	19.5	2.10	650	2,610
	30-Apr-12	18.8	<1.72	605	2,710
	26-Jan-12	18.8	2.24	666	2,790
	4-Nov-11	19.8	<2.17	668	2,270
	4-Aug-11	19.1	2.24	666	1,410
	22-Apr-11	21.2	<2.17	704	3,110
	27-Jan-11	22.4	<2.17	662	2,670
	21-Sep-10	24.9	<10.0	700	2,800
	30-Jun-10	26	<5.0	760	2,780
	25-Mar-10	12.1	ND	610	2,238
	15-Dec-09	13.8	ND	720	2,412
	2-Sep-09	10.9	ND	820	2,716
	4-Jun-09	19.0	ND	810	2,468
5-Mar-09	16.8	ND	605	2,230	
126-09	7-Nov-12	2.53	<1.72	984	2,980
	7-Aug-12	2.69	2.10	962	3,050
	30-Apr-12	2.28	5.04	978	2,900
	26-Jan-12	3.93	7.00	1,100	3,180
	7-Nov-11	3.30	5.6	1,130	3,470
	4-Aug-11	3.19	<2.17	1,100	3,180
	22-Apr-11	3.31	<2.17	1,120	2,730
	22-Sep-10	2.50	<10.0	1110	3,320
	30-Jun-10				
	25-Mar-10				
	15-Dec-09				
	2-Sep-09				
	4-Jun-09				
	5-Mar-09				
Not Sampled					
126-12	7-Nov-12	19.2	<1.72	407	2,490
	7-Aug-12	17.5	<1.72	410	2,460
	30-Apr-12	12.9	1.96	401	2,270
	14-Feb-12	12.5	4.20	418	2,340
	4-Nov-11	13.3	<2.17	430	2,600
	4-Aug-11	13.6	<2.17	449	2,580
	22-Apr-11	13.2	<2.17	461	2,530
	27-Jan-11	12.2	<2.17	453	2,280
	22-Sep-10	12.6	<10.0	446	2,430
	30-Jun-10	15	<2.0	500	2,610
	25-Mar-10	8.9	ND	550	2,260
	15-Dec-09	8.7	ND	540	2,296
	2-Sep-09	12.8	0.56	530	2,336
	4-Jun-09	4.08	0.84	530	2,322
5-Mar-09	11	ND	475	2,320	
126-13	7-Nov-12	23.8	2.10	751	3,090
	7-Aug-12	26.1	2.10	779	2,860
	30-Apr-12	43.8	<1.72	784	3,120
	26-Jan-12	27.5	<2.17	735	2,800
	7-Nov-11	21.9	<2.17	735	3,060
	4-Aug-11	21.4	<2.17	735	2,840
	22-Apr-11	21.7	<2.17	754	2,640
	26-Jan-11	22.8	<2.17	768	3,130
	22-Sep-10	23.1	<10.0	750	2,850
	30-Jun-10	26	<5.0	810	3,000
	25-Mar-10	10.3	ND	940	2,740
	15-Dec-09	14.3	ND	910	2,832
	2-Sep-09	12.8	ND	840	2,746
	4-Jun-09	16.3	ND	970	2,768
5-Mar-09	19.4	ND	845	2,800	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
<b>Mountain View Dairy</b>					
70-01	7-Nov-12	21.2	<1.72	636	2,700
	7-Aug-12	21.4	2.10	637	2,700
	25-Apr-12	21.7	<1.72	659	2,490
	2-Feb-12	21.5	2.94	633	2,530
	7-Nov-11	21.1	5.18	622	1,860
	3-Aug-11	20.7	2.8	641	2,630
	22-Apr-11	22.7	22.4	646	2,760
	27-Jan-11	22.5	2.94	650	2,500
	22-Sep-10	19.3	12.3	617	2,610
	30-Jun-10	27	<1.0	600	2,400
	25-Mar-10	14.5	ND	670	2,096
	15-Dec-09	17.1	ND	640	2,218
	1-Sep-09	8.4	ND	630	2,244
	2-Jun-09	9.35	ND	640	2,112
4-Mar-09	20.8	ND	610	2,254	
70-02	7-Nov-12	36.2	<1.72	820	3,300
	7-Aug-12	36.3	3.78	826	3,260
	25-Apr-12	37.9	<1.72	749	2,260
	2-Feb-12	37.5	<2.17	829	3,160
	7-Nov-11	37.7	<2.17	828	2,790
	4-Aug-11	36.8	5.04	798	3,160
	22-Apr-11	38.1	8.40	836	3,220
	27-Jan-11	44.2	6.02	863	3,390
	22-Sep-10	32.2	<10.0	829	3,070
	30-Jun-10	46	< 1.0	860	3,170
	25-Mar-10	19.6	ND	930	3,076
	15-Dec-09	18.3	ND	960	3,012
	9-Jan-09	21.4	ND	970	3,148
	2-Jun-09	17.8	ND	920	3,084
4-Mar-09	35.8	ND	940	3,104	
<b>Buena Vista Dairy I</b>					
86-01	26-Jan-11	95.4	16.0	2,300	6,240
	20-Sep-10	86.9	<10.0	2,330	6,500
	29-Jun-10	67	<1.0	1,800	5,010
	25-Mar-10	27.0	0.28	1,770	4,814
	15-Dec-09	29.8	ND	1,750	4,670
	1-Sep-09	26.1	ND	1,510	4,474
	2-Jun-09	46.5	4.76	1,590	4,464
	4-Mar-09	42	ND	1,659	4,850
86-02	26-Jan-11	23.4	2.24	641	3,110
	20-Sep-10	24.1	<10.0	613	2,980
	29-Jun-10	21	1.1	660	3,020
	25-Mar-10	16.2	0.7	740	2,740
	15-Dec-09	10.7	0.28	730	2,818
	1-Sep-09	7.2	ND	710	2,824
	2-Jun-09	2.95	ND	700	2,802
	4-Mar-09	16.4	ND	625	2,666
<b>Bright Star Dairy</b>					
340-01	5-Nov-12	23.8	<1.72	855	3,180
	6-Aug-12	22.7	<1.72	694	3,380
	25-Apr-12	26.3	61.0	681	2,540
	2-Feb-12	27.4	<2.17	661	2,780
	4-Nov-11	26.6	4.34	691	2,910
	25-Jul-11	28.3	4.20	747	2,830
	27-Jan-11	31.1	3.50	578	2,840
	21-Sep-10	24.8	<10.0	513	3,070
	29-Jun-10	29	<0.10	610	2,810
	24-Mar-10	18.8	ND	580	2,508
	15-Dec-09	13.1	ND	650	2,608
	1-Sep-09	12.20	ND	530	2,522
	2-Jun-09	8.67	ND	590	2,434
	4-Mar-09	28.3	ND	530	2,516

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
340-02	5-Nov-12	73.8	4.90	923	3,220
	6-Aug-12	74.0	<1.72	749	3,380
	25-Apr-12	69.8	6.16	727	2,890
	4-Nov-11	75.0	5.74	755	3,620
	22-Jul-11	84.8	7.98	777	2,970
	27-Jan-11	94.1	2.24	760	3,500
	21-Sep-10	92.2	<10.0	778	3,260
	29-Jun-10	87	<0.10	850	3,180
	24-Mar-10	95	ND	930	3,070
	15-Dec-09	82	ND	910	3,072
	1-Sep-09	94	ND	890	3,072
	2-Jun-09	43.2	ND	880	2,954
	4-Mar-09	41.5	ND	885	3,098
<b>Former D&amp;J Dairy (Dominguez 2)</b>					
42-02	09-Nov-12	8.99	<1.72	412	2,180
	08-Aug-12	7.73	<1.72	400	1,830
	01-May-12	22.5	<1.72	431	2,210
	16-Feb-12	24.5	<2.17	465	2,770
	09-Nov-11	21.2	3.08	449	2,170
	02-Aug-11	20.5	2.38	424	2,360
	25-Apr-11	29.1	<2.17	365	2,140
	28-Jan-11	22.7	6.72	408	2,150
	1-Oct-10	21.0	<10.0	355	2,010
	27-Jun-10	27	<5.0	360	2,220
	6-Mar-10	31.3	<0.3	380	2,145
	16-Jan-10	25.7	0.3	350	2,090
	15-Sep-09	24.6	0.9	350	2,075
	3-Jun-09	30.6	0.6	320	2,045
	14-Mar-09	29.6	0.7	370	2,115
42-03	9-Nov-12	56.2	<1.72	1,120	3,800
	8-Aug-12	71.1	<1.72	1,370	3,520
	1-May-12	51.5	<1.72	1,030	3,620
	16-Feb-12	51.3	<2.17	1,130	3,760
	9-Nov-11	58.9	2.80	1,000	3,660
	1-Aug-11	59.2	<2.17	1,030	3,720
	25-Apr-11	58.8	<2.17	1,080	3,620
	28-Jan-11	69.5	3.78	1,160	3,690
	1-Oct-10	63.0	<10.0	1,090	3,640
	27-Jun-10	49	<5.0	1,100	3,780
	6-Mar-10	39.6	<0.3	1,180	3,935
	16-Jan-10	43.3	<0.3	1,200	3,800
	15-Sep-09	52.3	0.3	1,130	3,765
	3-Jun-09	48.2	0.3	1,240	3,860
	14-Mar-09	32.2	<0.2	1,240	3,800
42-06	9-Nov-12	75.9	<1.72	478	2,570
	8-Aug-12	81.5	1.82	484	2,475
	1-May-12	87.0	1.96	720	2,920
	16-Feb-12	92.4	<2.17	630	3,100
	9-Nov-11	101	<2.17	617	3,000
	2-Aug-11	88.6	3.22	525	2,980
	25-Apr-11	72.2	<2.17	454	2,500
	28-Jan-11	69.8	4.20	421	2,780
	1-Oct-10	113	<10.0	497	2,660
	27-Jun-10	46	<5.0	400	2,550
	6-Mar-10	43.1	<0.3	480	2,510
	16-Jan-10	44.2	0.3	1,150	2,600
	14-Sep-09	54.8	0.4	450	2,600
	3-Jun-09	0.02	<0.2	1,240	3,780
	14-Mar-09	49.7	0.2	480	2,540
42-07	9-Nov-12	Dry			
	8-Aug-12	Dry			
	1-May-12	Dry			
	16-Feb-12	Dry			
	9-Nov-11	57.9	<2.17	1,090	3,450
	2-Aug-11	Dry			
	25-Apr-11	68.5	<2.17	1,230	4,080
	28-Jan-11	88.3	4.48	1,130	4,180
	1-Oct-10	92.0	<40.0	1,390	4,260
	27-Jun-10	63	<5.0	1,400	4,330
	6-Mar-10	63.1	<0.3	1,490	4,345
	16-Jan-10	59.6	<0.3	1,480	4,275
	15-Sep-09	66.6	<0.3	1,290	4,195
	3-Jun-09	57.4	<0.2	1,550	4,225
	14-Mar-09	43.7	<0.2	1,500	4,110

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
42-08	9-Nov-12	30.4	<1.72	283	1,930
	8-Aug-12	36.4	<1.72	307	1,938
	1-May-12	36.0	<1.72	246	1,700
	16-Feb-12	37.0	<2.17	254	1,850
	9-Nov-11	40.0	<2.17	269	1,770
	2-Aug-11	41.3	2.38	253	2,030
	25-Apr-11	51.4	2.66	201	1,970
	28-Jan-11	46.2	5.46	219	2,020
	1-Oct-10	49.0	<10.0	288	2,160
	27-Jun-10	75	<5.0	300	2,220
	6-Mar-10	76.8	<0.3	365	2,290
	16-Jan-10	82.8	<0.3	350	2,315
	15-Sep-09	87.1	0.7	410	2,340
	3-Jun-09	65.8	0.8	380	2,175
14-Mar-09	43.2	0.4	400	2,220	
42-09	9-Nov-12	48.4	<1.72	641	3,030
	8-Aug-12	49.5	<1.72	597	2,475
	1-May-12	50.3	<1.72	542	2,820
	16-Feb-12	50.7	<2.17	627	2,920
	9-Nov-11	47.8	<2.17	591	1,810
	1-Aug-11	55.0	<2.17	579	2,750
	25-Apr-11	65.8	<2.17	664	2,820
	28-Jan-11	44.9	<2.17	537	2,940
	28-Sep-10	38.0	<10.0	591	2,760
	27-Jun-10	68	<5.0	610	3,010
	6-Mar-10	NS	NS	NS	NS
	16-Jan-10	52.8	<0.3	690	2,970
	15-Sep-09	68.8	0.7	650	3,000
	3-Jun-09	66.5	0.7	690	3,000
14-Mar-09	59.5	0.4	700	3,050	
42-10	9-Nov-12	<0.0290	<1.72	397	1,350
	8-Aug-12	0.186	<1.72	403	1,328
	1-May-12	0.236	<1.72	363	1,260
	16-Feb-12	<0.500	<2.17	419	1,440
	8-Nov-11	<0.500	<2.17	425	1,510
	2-Aug-11	<0.500	<2.17	469	1,540
	25-Apr-11	<0.500	<2.17	453	1,500
	28-Jan-11	2.15	<2.17	345	1,280
	1-Oct-10	0.220	<10.0	360	1,450
	27-Jun-10	<0.50	<1.0	420	1,490
	6-Mar-10	0.23	<0.3	440	1,500
	16-Jan-10	<0.03	<0.3	430	1,435
	15-Sep-09	0.16	<0.3	400	1,425
	3-Jun-09	0.21	<0.2	450	1,535
14-Mar-09	0.02	<0.2	480	1,480	
42-11	9-Nov-12	<0.0290	<1.72	315	1,230
	8-Aug-12	1.21	<1.72	308	1,182
	1-May-12	1.24	<1.72	274	1,160
	16-Feb-12	<0.500	<2.17	337	1,240
	8-Nov-11	1.97	<2.17	334	1,480
	2-Aug-11	3.07	<2.17	308	1,160
	25-Apr-11	3.45	<2.17	304	795
	28-Jan-11	0.470	2.38	285	1,300
	1-Oct-10	0.620	<10.0	300	1,250
	27-Jun-10	3.9	<1.0	290	1,080
	6-Mar-10	0.51	<0.3	370	1,300
	16-Jan-10	0.03	<0.3	370	1,325
	15-Sep-09	0.41	<0.3	320	1,245
	3-Jun-09	3.00	0.7	300	1,080
14-Mar-09	0.90	<0.2	310	1,225	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
42-12	9-Nov-12	<0.0290	<1.72	315	1,170
	8-Aug-12	1.15	2.66	333	1,134
	1-May-12	0.750	<1.72	282	1,180
	16-Feb-12	<0.500	<2.17	341	1,200
	8-Nov-11	<0.500	<2.17	331	730
	2-Aug-11	<0.100	<2.17	331	1,340
	25-Apr-11	<0.500	<2.17	339	1,280
	28-Jan-11	0.580	<2.17	276	970
	1-Oct-10	4.50	<10.0	312	1,280
	27-Jun-10	0.72	<1.0	320	1,270
	6-Mar-10	0.13	<0.3	350	1,230
	16-Jan-10	0.42	<0.3	340	1,250
	15-Sep-09	0.65	<0.3	310	1,215
	3-Jun-09	0.82	<0.2	330	1,280
14-Mar-09	0.70	<0.2	340	1,240	
42-13	9-Nov-12	52.2	<1.72	835	3,250
	8-Aug-12	62.3	<1.72	871	3,110
	1-May-12	81.5	<1.72	902	3,550
	16-Feb-12	99.1	<2.17	1,020	3,880
	9-Nov-11	61.5	<2.17	901	3,160
	2-Aug-11	106	<2.17	1,900	3,280
	25-Apr-11	55.9	<2.17	1,000	3,600
	28-Jan-11	52.6	<2.17	868	3,720
	29-Sep-10	44.5	<10.0	833	3,360
	27-Jun-10	48	<5.0	1,000	3,810
	6-Mar-10	NS	NS	NS	NS
	16-Jan-10	46.3	<0.3	1,130	3,810
	15-Sep-09	54.8	0.5	1,100	3,940
	3-Jun-09	51.6	<0.2	1,110	3,775
14-Mar-09	51.0	0.6	1,040	3,735	
<b>Dominguez</b>					
624-01	12-Nov-12	12.2	<1.72	652	2,590
	9-Aug-12	17.4	2.80	1,080	3,550
	30-Apr-12	8.69	36.4	1,400	4,180
	7-Feb-12	10.0	9.52	1,420	3,180
	4-Nov-11	10.8	5.60	1,430	3,460
	3-Aug-11	10.7	<2.17	1,580	3,970
	27-Apr-11	<0.500	30.8	1,330	4,040
	25-Jan-11	14.0	<2.17	1,280	3,760
	21-Sep-10	8.20	<10.0	1,260	3,780
	27-Jun-10	11	<2.0	1,600	4,520
	6-Mar-10	17.2	<0.3	910	2,610
	16-Jan-10	5.5	0.4	840	2,540
	15-Sep-09	6.5	0.6	760	2,455
	3-Jun-09	16.1	0.7	810	2,790
14-Mar-09	21.9	0.3	1,190	3,305	
624-02	12-Nov-12	12.7	<1.72	1,170	3,830
	9-Aug-12	9.69	<1.72	1,300	4,010
	30-Apr-12	16.4	4.06	1,160	3,650
	7-Feb-12	14.8	<2.17	1,200	3,720
	4-Nov-11	10.7	3.5	1,300	4,060
	3-Aug-11	12.2	<2.17	1,290	3,600
	27-Apr-11	11.6	7.70	1,340	4,170
	25-Jan-11	19.1	<2.17	1,290	3,700
	20-Sep-10	19.6	<10.0	1,300	4,130
	27-Jun-10	14	<2.0	1,400	4,230
	6-Mar-10	23.7	<0.3	1,400	3,880
	16-Jan-10	22.6	0.4	1,300	3,630
	15-Sep-09	19.9	0.8	1,260	3,625
	3-Jun-09	29.4	0.4	1,340	3,905
14-Mar-09	26.5	0.4	1,240	3,655	
624-04	12-Nov-12	Dry			
	9-Aug-12	Dry			
	30-Apr-12	Dry			
	7-Feb-12	Dry			
	4-Nov-11	Dry			
	3-Aug-11	1.84	<2.17	478	2,760
	27-Apr-11	2.60	5.74	566	2,830
	26-Jan-11	3.23	2.52	747	3,480
	21-Sep-10	6.0	<10.0	758	3,750
	27-Jun-10	3.7	1.4	810	3,950
	6-Mar-10	4.3	0.4	890	4,050
	16-Jan-10	4.2	0.7	800	3,845
	15-Sep-09	9.3	0.8	840	3,750
	3-Jun-09	16.0	0.6	520	2,900
14-Mar-09	18.1	0.6	520	2,820	



**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
624-05	12-Nov-12	4.82	<1.72	440	2,200
	9-Aug-12	4.11	1.82	472	2,050
	30-Apr-12	3.70	2.10	346	1,710
	7-Feb-12	3.38	<2.17	411	2,040
	4-Nov-11	2.58	4.20	385	1,980
	3-Aug-11	3.34	<2.17	1,080	1,940
	27-Apr-11	3.34	4.76	424	1,840
	26-Jan-11	3.62	<2.17	392	1,740
	21-Sep-10	11.9	<10.0	449	2,300
	27-Jun-10	27	<5.0	480	2,450
	6-Mar-10	30.5	0.4	520	2,595
	16-Jan-10	21.4	0.9	520	2,605
	15-Sep-09	34.8	1.0	530	2,620
	3-Jun-09	33.8	1.3	500	2,650
14-Mar-09	23.9	1.2	490	2,565	
624-06	12-Nov-12	28.3	<1.72	1,060	3,840
	9-Aug-12	30.8	7.56	1,080	3,420
	30-Apr-12	31.1	8.40	1,010	3,300
	7-Feb-12	30.9	6.30	1,080	3,020
	4-Nov-11	29.5	8.68	1,040	2,860
	3-Aug-11	29.8	<2.17	1,080	3,240
	27-Apr-11	29.0	3.50	1,050	3,180
	26-Jan-11	29.1	2.94	1,080	2,760
	21-Sep-10	26.7	<10.0	1,060	3,270
	27-Jun-10	30	<5.0	1,100	3,570
	6-Mar-10	28.3	<0.3	1,250	3,550
	16-Jan-10	52.2	0.6	2,100	3,545
	15-Sep-09	27.8	0.7	1,150	3,425
	3-Jun-09	38.3	0.8	70	4,300
14-Mar-09	36.5	0.3	1,300	3,800	
624-07	12-Nov-12				Dry
	9-Aug-12				Dry
	30-Apr-12				Dry
	7-Feb-12				Not Sampled - insufficient water to sample
	4-Nov-11				Not Sampled - insufficient water to sample
	3-Aug-11	8.01	<2.17	473	1,600
	27-Apr-11	19.4	3.50	539	2,290
	26-Jan-11	14.7	5.60	516	1,900
	21-Sep-10	20.5	<10.0	531	2,200
	27-Jun-10	61	<5.0	880	3,550
	6-Mar-10	43.4	<0.3	1,080	3,825
	16-Jan-10	49.5	0.5	840	3,275
	15-Sep-09	50.1	0.4	960	3,280
	3-Jun-09	75.2	0.8	1,525	4,980
14-Mar-09	54.3	0.3	1,160	3,580	
624-08	12-Nov-12				Dry
	9-Aug-12				Dry
	30-Apr-12				Dry
	7-Feb-12				Dry
	4-Nov-11				Dry
	3-Aug-11				Dry
	27-Apr-11	2.45	3.50	200	1,400
	26-Jan-11	1.7	8.12	222	2,940
	21-Sep-10	<2.50	<10.0	197	1,200
	27-Jun-10	2.0	<1.0	220	1,310
	6-Mar-10	0.65	<0.3	280	1,330
	16-Jan-10	0.89	<0.3	240	1,215
	15-Sep-09	2.3	0.3	200	1,205
	3-Jun-09	1.7	0.7	210	1,280
14-Mar-09	1.8	<0.2	205	1,165	
Gonzalez					
177-01	13-Nov-12	27.7	<1.72	1,190	3,780
	13-Aug-12	27.3	2.52	1,160	3,790
	26-Apr-12	28.5	<1.72	1,460	3,500
	6-Feb-12	28.1	<2.17	1,180	3,650
	3-Nov-11	27.4	2.66	1,170	3,790
	2-Aug-11	26.0	2.24	1,200	4,000
	4-May-11	26.6	<2.17	1,160	4,020
	25-Jan-11	23.3	4.06	1,160	3,540
	20-Sep-10	17.6	12.7	1,120	3,480
	29-Jun-10	34	<1.0	1,200	3,660
	28-Apr-10	31	<5.0	1,200	3,680
	20-Jan-10	32	<5.0	1,200	3,640
	21-Oct-09	35	<5.0	1,100	3,700
	7-Jul-09	35	<5.0	1,400	3,700
6-May-09	34	<5.0	1,300	3,700	
22-Jan-09	33	<5.0	1,300	3,700	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
177-02	13-Nov-12	35.8	<1.72	870	3,320
	13-Aug-12	47.4	7.70	899	3,650
	26-Apr-12	36.0	<1.72	881	2,960
	6-Feb-12	37.0	<2.17	958	3,320
	3-Nov-11	32.7	<2.17	971	3,450
	3-Aug-11	34.4	2.80	997	3,340
	4-May-11	38.1	2.52	1,050	3,580
	25-Jan-11	31.6	3.36	1,050	3,640
	20-Sep-10	78.0	<10.0	964	3,630
	29-Jun-10	58	<1.0	1,000	3,830
	28-Apr-10	60	<5.0	1,100	3,860
	20-Jan-10	59	<5.0	1,200	4,020
	21-Oct-09	50	<5.0	1,200	4,000
	7-Jul-09	56	<5.0	1,300	4,000
6-May-09	52	<5.0	1,200	4,000	
22-Jan-09	72	<5.0	1,300	4,000	
177-03A	13-Nov-12	12.2	<1.72	1,150	3,900
	13-Aug-12	7.86	<1.72	835	2,810
	26-Apr-12	1.16	<1.72	378	1,430
	6-Feb-12	2.00	<2.17	452	1,580
	4-Nov-11	<0.500	3.50	436	1,850
177-04	13-Nov-12	22.3	<1.72	1,070	3,630
	13-Aug-12	19.7	<1.72	1,000	3,720
	26-Apr-12	21.7	<1.72	1,050	3,480
	2-Feb-12	22.5	<2.17	1,100	3,650
	3-Nov-11	27.5	<2.17	1,100	3,500
	2-Aug-11	21.6	<2.17	1,080	3,670
	4-May-11	21.2	3.64	1,100	3,740
	25-Jan-11	17.5	2.38	1,150	3,760
	20-Sep-10	4.83	<10.0	1,180	4,030
	29-Jun-10	26	<1.0	1,200	4,010
	28-Apr-10	26	<5.0	1,300	4,090
	20-Jan-10	27	<5.0	1,400	4,090
	21-Oct-09	29	<5.0	1,400	4,100
	7-Jul-09	32	<5.0	1,400	3,990
6-May-09	32	<5.0	1,300	3,800	
22-Jan-09	26	<5.0	1,200	1,700	
177-05	13-Nov-12	37.1	<1.72	1,240	4,050
	13-Aug-12	37.6	2.66	1,390	4,360
	26-Apr-12	47.1	<1.72	1,090	3,440
	2-Feb-12	42.2	<2.17	1,170	3,590
	3-Nov-11	30.6	<2.17	1,190	3,060
	2-Aug-11	36.3	<2.17	1,120	3,420
	4-May-11	40.6	5.60	1,090	3,500
	25-Jan-11	39.2	2.10	1,060	3,240
	20-Sep-10	7.39	<10.0	1,050	3,500
	29-Jun-10	39	<1.0	1,100	3,470
	28-Apr-10	40	<5.0	1,200	3,460
	20-Jan-10	43	<5.0	1,100	3,330
	21-Oct-09	50	<5.0	1,100	3,300
	7-Jul-09	38	<5.0	1,200	3,270
6-May-09	40	<5.0	1,100	3,100	
22-Jan-09	40	<5.0	1,100	3,000	
177-06	13-Nov-12	16.1	<1.72	918	3,020
	26-Apr-12	Dry			
	2-Feb-12	16.1	4.76	934	2,940
	7-Dec-11	15.1	<2.17	892	2,760
	2-Aug-11	16.1	<2.17	910	3,020
	4-May-11	17.2	4.90	955	2,930
	25-Jan-11	19.2	<2.05	923	2,740
	20-Sep-10	<2.50	<10.0	890	2,880
	29-Jun-10	23	<1.0	940	2,960
	28-Apr-10	21	<5.0	980	2,960
	20-Jan-10	26	<5.0	1,000	2,910
	21-Oct-09	25	<5.0	980	2,900
	7-Jul-09	25	<5.0	1,000	2,850
	6-May-09	25	<5.0	1,000	2,800
22-Jan-09	23	<5.0	960	2,800	
177-07	15-Mar-03	44.4	1.5	1,205	4,007
177-07R	13-Nov-12	31.0	<1.72	1,040	3,570
	13-Aug-12	26.5	<1.72	1,040	3,670
	26-Apr-12	22.8	<1.72	1,010	2,690
	6-Feb-12	28.5	5.60	1,060	2,730
	4-Nov-11	29.3	2.66	1,050	2,830
	3-Aug-11	25.2	2.80	1,050	3,250
7-Apr-11	21.4	2.52	1,070	8,660	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
Central Area					
Buena Vista Dairy II					
74-01	14-Nov-12	94.2	8.40	963	3,510
	10-Aug-12	78.6	3.50	922	2,150
	3-May-12	65.3	<1.72	778	3,265
	8-Feb-12	Not Sampled			
	3-Nov-11	64.6	<2.17	811	2,830
	1-Aug-11	73.2	<2.17	770	3,040
	26-Apr-11	67.8	<2.17	730	3,300
	25-Jan-11	41.7	13.0	738	2,960
	17-Sep-10	36.7	<10.0	695	2,760
	29-Jun-10	74	<1.0	850	3,350
	24-Mar-10	70	ND	840	3,070
	14-Dec-09	84	0.14	750	2,480
	1-Sep-09	92	ND	730	2,914
	2-Jun-09	33.2	ND	650	2,632
3-Mar-09	43.8	ND	735	2,666	
74-02	14-Nov-12	12.7	2.10	484	2,150
	10-Aug-12	14.0	2.10	532	2,060
	3-May-12	16.4	<1.72	495	1,980
	8-Feb-12	15.2	5.46	519	2,150
	3-Nov-11	26.3	<2.17	558	2,510
	29-Jul-11	52.8	2.24	630	2,710
	26-Apr-11	93.2	<2.17	831	3,610
	25-Jan-11	65.7	2.80	824	3,670
	17-Sep-10	30.6	<10.0	665	2,400
	29-Jun-10	45	<1.0	730	2,780
	24-Mar-10	20.6	ND	810	2,612
	14-Dec-09	14.6	0.14	770	2,452
	1-Sep-09	17.3	0.7	760	2,474
	2-Jun-09	17.6	0.84	820	4,866
3-Mar-09	45.1	ND	1,265	4,556	
74-03	14-Nov-12	1.06	<1.72	1,300	4,440
	10-Aug-12	2.25	<1.72	1,450	4,900
	3-May-12	9.92	<1.72	1,330	3,920
	8-Feb-12	11.0	<2.17	1,420	4,170
	3-Nov-11	27.6	<2.17	1,420	4,730
	1-Aug-11	15.0	<2.17	1,450	4,870
	26-Apr-11	4.17	<2.17	1,480	4,690
	25-Jan-11	2.02	<2.17	1,460	4,960
	20-Sep-10	21.3	<10.0	1,490	4,840
	29-Jun-10	1.5	<1.0	1,400	4,630
	24-Mar-10	6.1	ND	1,530	4,400
	14-Dec-09	14.1	ND	1,550	4,560
	1-Sep-09	18.9	ND	1,630	4,734
	2-Jun-09	2.9	ND	1,590	1,782
3-Mar-09	2.65	ND	1,510	4,664	
74-04	14-Nov-12	19.3	<1.72	499	2,140
	10-Aug-12	18.8	<1.72	477	1,920
	3-May-12	33.6	<1.72	436	1,800
	8-Feb-12	31.6	<2.17	473	2,020
	3-Nov-11	13.4	<2.17	439	1,080
	29-Jul-11	15.3	<2.17	438	1,580
	26-Apr-11	12.8	<2.17	451	1,820
	25-Jan-11	6.50	<2.17	434	1,810
	20-Sep-10	10.6	<10.0	441	1,640
	29-Jun-10	15	<1.0	500	1,840
	24-Mar-10	11.4	0.28	570	1,792
	14-Dec-09	11.5	ND	560	1,738
	1-Sep-09	19.3	ND	550	1,792
	2-Jun-09	7.2	ND	570	2,024
3-Mar-09	20.3	ND	530	1,884	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
74-05	14-Nov-12	17.0	<1.72	219	1,900
	10-Aug-12	18.0	<1.72	463	1,800
	3-May-12	18.0	<1.72	421	1,900
	8-Feb-12	17.4	<2.17	442	1,960
	3-Nov-11	17.9	<2.17	442	960
	29-Jul-11	23.3	<2.17	449	2,000
	26-Apr-11	21.5	<2.17	446	1,900
	25-Jan-11	16.5	<2.17	446	1,940
	17-Sep-10	17.6	<10.0	439	1,880
	29-Jun-10	32	<1.0	520	2,070
	24-Mar-10	23.2	ND	620	1,960
	14-Dec-09	15.9	ND	600	1,924
	1-Sep-09	25.2	ND	540	1,964
	2-Jun-09	10.8	ND	560	2,068
3-Mar-09	33.2	ND	535	2,038	
<b>River Valley Dairy</b>					
167-01	15-Nov-12	Not Sampled			
	14-Aug-12	Not Sampled			
	2-May-12	Not Sampled			
	30-Jan-12	Not Sampled			
	2-Nov-11	Not Sampled			
	25-Jul-11	Not Sampled			
	28-Apr-11	<0.500	3.92	720	2,960
	20-Jan-11	Not Sampled			
	27-Sep-10	1.55	9.94	731	2,540
	28-Jun-10	Not Sampled			
	5-Mar-10				
	15-Jan-10				
	14-Sep-09				
	2-Jun-09				
15-Mar-09	Not Sampled				
167-01A	15-Nov-12	4.02	<1.72	778	3,440
	14-Aug-12	1.78	4.20	888	3,260
	2-May-12	2.55	1.82	781	3,180
	30-Jan-12	2.54	3.50	755	2,940
	2-Nov-11	11.2	4.62	1,080	3,620
	25-Jul-11	2.13	3.92	943	3,330
	28-Apr-11	4.03	<2.17	1,030	3,710
	20-Jan-11	1.26	2.1	968	5,100
	22-Sep-10	1.40	3.36	1,010	3,470
	28-Jun-10	6.07	1.1	1,050	3,710
	5-Mar-10	9.3	0.8	1,040	3,605
	15-Jan-10	5.3	0.5	1,090	3,590
	14-Sep-09	13.4	0.6	1,040	3,530
	2-Jun-09	13.7	0.7	980	3,505
15-Mar-09	22.2	0.2	740	3,130	
167-02	15-Nov-12	Not Sampled			
	14-Aug-12	Not Sampled			
	30-Jan-12	Not Sampled			
	2-Nov-11	<0.500	3.64	432	650
	25-Jul-11	Dry			
	28-Apr-11	<0.500	2.94	500	1,910
	20-Jan-11	0.716	<2.05	546	1,840
	22-Sep-10	<0.846	<10.0	610	2,100
	28-Jun-10	Not Sampled			
	5-Mar-10				
	15-Jan-10				
	14-Sep-09				
	2-Jun-09				
	28-Apr-08	7.0	0.3	780	2,580
167-03	15-Nov-12	15.0	<1.72	503	2,150
	14-Aug-12	16.6	<1.72	500	2,350
	2-May-12	17.5	<1.72	499	2,220
	27-Jan-12	21.0	<2.17	572	2,250
	2-Nov-11	22.0	<2.17	564	2,150
	25-Jul-11	18.5	6.16	543	2,250
	28-Apr-11	17.1	<2.17	508	2,210
	20-Jan-11	13.2	2.24	467	1,880
	22-Sep-10	9.19	<10.0	472	2,120
	28-Jun-10	20.4	<5.0	567	2,310
	5-Mar-10	18.4	<0.3	610	2,265
	15-Jan-10	13.7	0.6	620	2,015
	14-Sep-09	23.1	0.4	590	2,240
	2-Jun-09	25.0	0.5	680	2,515
15-Mar-09	30.9	0.2	760	2,615	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
167-04	15-Nov-12	7.77	<1.72	1,150	4,380
	14-Aug-12	23.2	2.10	1,110	4,540
	2-May-12	18.6	13.6	1,050	4,020
	27-Jan-12	15.6	3.50	1,500	4,840
	2-Nov-11	Not Sampled - insufficient water to sample			
	26-Jul-11	19.3	4.62	1,270	4,560
	28-Apr-11	7.95	73.1	1,610	4,960
	20-Jan-11	Not Sampled			
	28-Jun-10				
	5-Mar-10				
	15-Jan-10				
	14-Sep-09	6.7	0.4	1,630	5,240
	2-Jun-09	8.5	0.4	1,525	5,045
	15-Mar-09	16.4	0.2	1,570	5,210
167-05	19-Nov-12	2.31	<1.72	805	3,480
	14-Aug-12	1.48	<1.72	1,630	3,220
	2-May-12	3.50	2.24	777	3,180
	30-Jan-12	4.40	<2.17	808	3,140
	2-Nov-11	3.89	3.64	782	2,560
	26-Jul-11	4.41	3.22	792	3,070
	28-Apr-11	12.9	2.80	976	3,630
	20-Jan-11	3.53	2.52	748	2,980
	23-Sep-10	2.70	<10.0	758	2,820
	28-Jun-10	4.07	<1.0	789	2,930
	5-Mar-10	2.9	<0.3	960	2,945
	15-Jan-10	1.8	<0.3	380	715
	14-Sep-09	1.9	0.4	890	2,970
	2-Jun-09	1.8	0.9	850	3,005
	15-Mar-09	4.6	0.2	910	3,230
	167-06	19-Nov-12	23.7	<1.72	718
14-Aug-12		25.1	<1.72	677	2,910
2-May-12		27.2	<1.72	688	2,480
30-Jan-12		29.1	<2.17	754	2,880
2-Nov-11		35.7	<2.17	716	3,390
25-Jul-11		35.0	5.32	702	2,640
28-Apr-11		35.4	<2.17	676	2,790
20-Jan-11		29.6	2.38	634	2,560
22-Sep-10		19.8	<10.0	655	2,630
28-Jun-10		34.8	2.35	687	2,700
5-Mar-10		30.9	<0.3	730	2,730
15-Jan-10		26.2	0.4	750	2,755
14-Sep-09		40.4	<0.3	700	2,680
2-Jun-09		31.5	0.4	790	2,715
15-Mar-09		36.2	0.7	730	2,715
167-07		15-Nov-12	<0.0595	<1.72	498
	14-Aug-12	<0.114	4.06	1,160	6,090
	2-May-12	0.0285	<1.72	367	1,890
	30-Jan-12	<0.500	<2.17	411	1,850
	2-Nov-11	<0.500	<2.17	366	2,460
	25-Jul-11	<1.00	3.50	446	4,400
	28-Apr-11	<0.500	<2.17	292	1,750
	20-Jan-11	0.448	2.10	239	1,280
	22-Sep-10	0.0400	2.10	268	1,590
	28-Jun-10	<0.5	<2.0	287	1,600
	5-Mar-10	0.16	<0.3	370	1,650
	15-Jan-10	<0.03	<0.3	250	2,065
	14-Sep-09	0.19	<0.3	390	1,700
	2-Jun-09	0.11	0.4	740	2,575
	15-Mar-09	0.11	0.2	1,090	3,165
	167-08	15-Nov-12	Well Damaged - Not Sampled		
14-Aug-12		0.192	<1.72	788	2,860
2-May-12		0.399	<1.72	744	2,580
30-Jan-12		<0.500	<2.17	805	2,440
2-Nov-11		1.93	<2.17	759	2,520
26-Jul-11		3.77	4.20	779	3,030
28-Apr-11		3.74	<2.17	793	2,740
20-Jan-11		<0.239	2.10	764	2,640
23-Sep-10		0.250	<10.0	756	2,720
28-Jun-10		5.51	<0.5	804	2,990
5-Mar-10		5.5	<0.3	830	2,750
15-Jan-10		0.84	<0.3	720	2,530
14-Sep-09		2.9	0.3	640	2,380
2-Jun-09		2.1	0.6	750	2,785
15-Mar-09		3.2	0.2	740	2,710

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
167-09	19-Nov-12	12.8	<1.72	979	3,560
	14-Aug-12	8.47	2.10	916	3,760
	2-May-12	14.5	<1.72	1,070	4,000
	30-Jan-12	13.2	2.80	1,010	3,590
	3-Nov-11	7.53	8.40	988	3,590
	26-Jul-11	<1.00	3.78	736	2,300
	28-Apr-11	<0.500	2.38	467	2,140
	20-Jan-11	0.0147	<2.05	429	2,160
	24-Sep-10	0.0300	<10.0	432	1,500
	28-Jun-10	<0.5	<1.0	491	2,160
	5-Mar-10	0.05	<0.3	580	2,150
	15-Jan-10	<0.03	<0.3	500	2,250
	14-Sep-09	<0.03	<0.3	530	2,055
	2-Jun-09	0.04	0.7	540	2,205
15-Mar-09	0.07	0.2	630	2,400	
<b>Big Sky Dairy</b>					
833-01	19-Nov-12			Dry	
	15-Aug-12			Dry	
	7-May-12			Dry	
	15-Feb-12			Dry	
	1-Nov-11			Dry	
	21-Jul-11			Dry	
	29-Apr-11	Not Sampled - insufficient water to sample			
	24-Jan-11	33.6	4.20	997	3,100
	23-Sep-10	29.1	<10.0	881	3,300
	28-Jun-10	1.7	1.8	180	790
	23-Mar-10	28.3	0.7	1,025	2,640
	14-Dec-09	21.8	ND	975	2,800
	31-Aug-09	15.3	ND	999	2,894
	1-Jun-09	8.6	ND	1,030	2,382
	2-Mar-09	37.1	ND	1,070	3,750
	833-02	19-Nov-12	84.3	2.10	1,030
15-Aug-12		37.5	2.94	535	2,440
7-May-12		43.3	65.1	635	2,420
15-Feb-12		87.2	4.34	889	3,660
1-Nov-11		82.3	2.38	885	4,010
21-Jul-11		91.6	3.08	880	3,510
29-Apr-11		81.6	6.02	840	3,500
24-Jan-11		69.3	2.66	789	3,090
23-Sep-10		52.9	<10.0	833	3,650
28-Jun-10		29	<5.0	560	2,200
23-Mar-10		15.9	ND	660	2,066
14-Dec-09		11.5	0.28	650	2,018
31-Aug-09		12.4	ND	660	2,170
1-Jun-09		<0.5	ND	650	3,358
2-Mar-09		3.54	13.44	585	1,978
833-03		19-Nov-12			Dry
	15-Aug-12			Dry	
	3-May-12			Dry	
	15-Feb-12			Dry	
	1-Nov-11			Dry	
	21-Jul-11			Dry	
	4-May-11	24.8	4.20	1,660	4,120
	24-Jan-11	30.4	2.66	1,650	4,090
	23-Sep-10	18.1	<10.0	1,410	3,880
	28-Jun-10	5.0	5.5	650	1,870
	23-Mar-10	14.0	ND	1,750	4,044
	14-Dec-09	11.8	0.28	1,839	4,280
	31-Aug-09	8.9	ND	1,760	4,216
	1-Jun-09	90.4	ND	1,620	3,060
	2-Mar-09	21.2	ND	1,580	3,970
	833-04	19-Nov-12	50.0	<1.72	1010
15-Aug-12		32.7	2.66	783	2,680
3-May-12		24.1	<1.72	623	2,920
15-Feb-12		49.9	<2.17	942	3,320
1-Nov-11		43.4	<2.17	867	3,040
21-Jul-11		45.3	2.52	883	3,410
29-Apr-11		46.2	<2.17	902	3,280
24-Jan-11		40.9	<2.05	755	3,040
24-Sep-10		<50.0	<10.0	915	3,480
28-Jun-10		18	<2.0	500	1,830
23-Mar-10		11.3	ND	560	1,648
14-Dec-09		11.2	0.42	570	1,750
31-Aug-09		16.1	ND	630	1,986
1-Jun-09		3.03	ND	580	1,968
2-Mar-09		14.6	ND	600	1,884

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
833-05	20-Nov-12	15.0	2.10	1,070	3,100
	15-Aug-12	13.9	<1.72	1,100	3,250
	3-May-12	12.8	<1.72	1,030	2,790
	15-Feb-12	14.9	<2.17	1,230	3,100
	1-Nov-11	12.2	2.24	1,150	2,580
	21-Jul-11	12.0	2.66	1,210	3,180
	29-Apr-11	17.6	<2.17	1,330	3,300
	24-Jan-11	23.2	2.66	1,340	3,430
	24-Sep-10	28.9	<10.0	1,330	3,800
	28-Jun-10	12	<2.0	1,200	3,090
	23-Mar-10	12.2	ND	1,240	2,942
	14-Dec-10	6.7	0.56	1,280	3,096
	31-Aug-09	9.0	ND	1,220	3,152
	1-Jun-09	3.43	ND	1,230	3,026
2-Mar-09	11	ND	1,255	3,134	
833-06	19-Nov-12	24.2	<1.72	920	2,840
	15-Aug-12	23.4	<1.72	845	2,670
	3-May-12	20.7	<1.72	702	2,560
	14-Feb-12	26.4	<2.17	727	2,480
	2-Nov-11	28.8	3.08	688	1,900
	21-Jul-11	70.1	7.70	682	2,650
	4-May-11	36.4	7.70	717	2,440
	20-Jan-11	61.0	2.80	738	2,360
	23-Sep-10	64.3	<10.0	761	2,680
	28-Jun-10	23	<5.0	630	2,310
	23-Mar-10	24.8	2.38	700	2,184
	14-Dec-09	22.7	1.68	820	2,344
	31-Aug-09	25.1	1.96	790	2,708
	1-Jun-09	106	ND	680	2,280
2-Mar-09	66.4	ND	610	2,160	
833-07	20-Nov-12	95.1	<1.72	1,130	4,290
	15-Aug-12	99.8	2.52	1,540	5,110
	7-May-12	95.6	7.56	1,460	4,880
	15-Feb-12	90.3	<2.17	1,340	4,660
	1-Nov-11	94.2	<2.17	1,090	3,840
	21-Jul-11	105	<2.17	115	4,090
	29-Apr-11	100	<2.17	1,220	4,380
	24-Jan-11	100	2.10	1,140	4,350
	24-Sep-10	129	<10.0	933	3,800
	28-Jun-10	69	<5.0	1,300	4,160
	23-Mar-10	106	ND	1,320	3,884
	14-Dec-09	101	0.42	1,260	3,988
	31-Aug-09	74	8.68	1,180	3,978
	1-Jun-09	12.4	8.68	1,180	3,964
2-Mar-09	33.2	ND	1,380	3,866	
833-08	20-Nov-12	60.8	<1.72	1,070	3,580
	15-Aug-12	57.8	2.52	987	3,480
	3-May-12	61.4	<1.72	927	3,040
	15-Feb-12	77.6	<2.17	1,020	3,200
	1-Nov-11	69.8	4.20	966	3,080
	21-Jul-11	68.8	<2.17	963	3,240
	29-Apr-11	75.9	<2.17	950	3,330
	24-Jan-11	93.4	2.10	930	3,190
	23-Sep-10	91.8	<10.0	985	3,600
	28-Jun-10	35	<5.0	630	2,290
	23-Mar-10	33	ND	700	2,108
	14-Dec-09	31	ND	950	2,710
	31-Aug-09	63	ND	1,020	3,576
	1-Jun-09	41.4	ND	1,000	3,492
2-Mar-09	121	ND	700	2,038	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
833-09	20-Nov-12	89.6	<1.72	731	3,760
	15-Aug-12	99.3	<1.72	875	3,780
	7-May-12	80.4	<1.72	745	3,830
	15-Feb-12	94.8	<2.17	725	3,580
	1-Nov-11	93.0	<2.17	779	3,880
	21-Jul-11	135	<2.17	1,070	4,550
	4-May-11	147	<2.17	1,420	5,540
	25-Jan-11	134	2.80	1,420	4,850
	24-Sep-10	58.2	<10.0	1,050	4,110
	28-Jun-10	50	<5.0	1,200	4,380
	23-Mar-10	16.3	0.56	1,100	3,624
	14-Dec-09	2.7	0.28	960	3,184
	31-Aug-09	6.6	ND	870	3,178
	1-Jun-09	18.10	1.12	880	3,164
2-Mar-09	7.07	ND	825	3,202	
833-10	20-Nov-12	4.25	<1.72	608	2,540
	15-Aug-12	4.93	2.52	585	2,530
	7-May-12	3.95	<1.72	581	2,350
	15-Feb-12	3.18	<2.17	582	2,440
	1-Nov-11	3.69	<2.17	573	2,590
	21-Jul-11	4.63	3.78	597	2,480
	4-May-11	5.19	<2.17	714	2,670
	25-Jan-11	8.46	2.10	649	2,730
	24-Sep-10	<10.0	<10.0	654	2,250
	28-Jun-10	3.6	<1.0	750	2,790
	23-Mar-10	6.8	ND	1,220	3,868
	14-Dec-09	3.7	0.14	790	2,576
	31-Aug-09	4.7	ND	750	2,548
	1-Jun-09	7.1	ND	650	2,458
2-Mar-09	2.43	ND	855	2,954	
<b>Sunset/Desert Land Dairy</b>					
257-01	21-Nov-12	24.7	2.80	625	3,130
	16-Aug-12	23.2	<1.72	617	3,060
	26-Apr-12	23.7	22.7	680	2,920
	9-Feb-12	19.4	<2.17	603	2,940
	1-Nov-11	28.4	<2.17	619	2,730
	22-Jul-11	44.8	<2.17	673	3,270
	26-Apr-11	103	3.78	870	4,440
	19-Jan-11	59.3	3.08	743	3,420
	24-Sep-10	58.0	<10.0	685	3,120
	28-Jun-10	100	<1.0	820	3,800
	24-Mar-10	187	ND	1,100	4,342
	14-Dec-09	71	0.14	910	3,860
	31-Aug-09	49	ND	880	3,706
	2-Jun-09	64	ND	910	3,822
3-Mar-09	89	ND	1,135	4,652	
257-02	21-Nov-12	10.0	2.80	468	2,060
	16-Aug-12	14.8	<1.72	484	2,170
	26-Apr-12	23.2	8.40	505	1,840
	9-Feb-12	11.1	<2.17	443	1,840
	1-Nov-11	19.3	2.24	442	3,150
	22-Jul-11	28.7	<2.17	501	2,160
	26-Apr-11	24.9	2.80	433	2,000
	19-Jan-11	13.3	2.52	455	1,500
	24-Sep-10	21.0	<10.0	445	1,590
	29-Jun-10	24	<1.0	560	2,180
	24-Mar-10	22.3	ND	570	1,840
	14-Dec-09	19.3	0.14	480	1,916
	31-Aug-09	14.2	ND	410	1,518
	2-Jun-09	1.86	ND	500	1,690
3-Mar-09	30.4	ND	495	1,632	
257-03	21-Nov-12	3.11	2.80	490	2,250
	16-Aug-12	17.6	2.10	509	2,420
	26-Apr-12	6.60	4.20	601	2,330
	14-Feb-12	11.2	<2.17	636	2,620
	1-Nov-11	7.37	2.80	537	2,210
	22-Jul-11	12.9	2.80	576	2,100
	26-Apr-11	12.5	5.88	525	2,400
	19-Jan-11	2.67	2.24	377	1,600
	24-Sep-10	8.00	<10.0	400	1,670
	29-Jun-10	17	1.1	660	2,570
	24-Mar-10	10.1	1.12	640	2,342
	14-Dec-09	5.9	0.56	760	2,638
	31-Aug-09	10.7	0.84	610	2,260
	2-Jun-09	5.99	ND	570	2,284
3-Mar-09	334*	ND	690	2,538	



**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

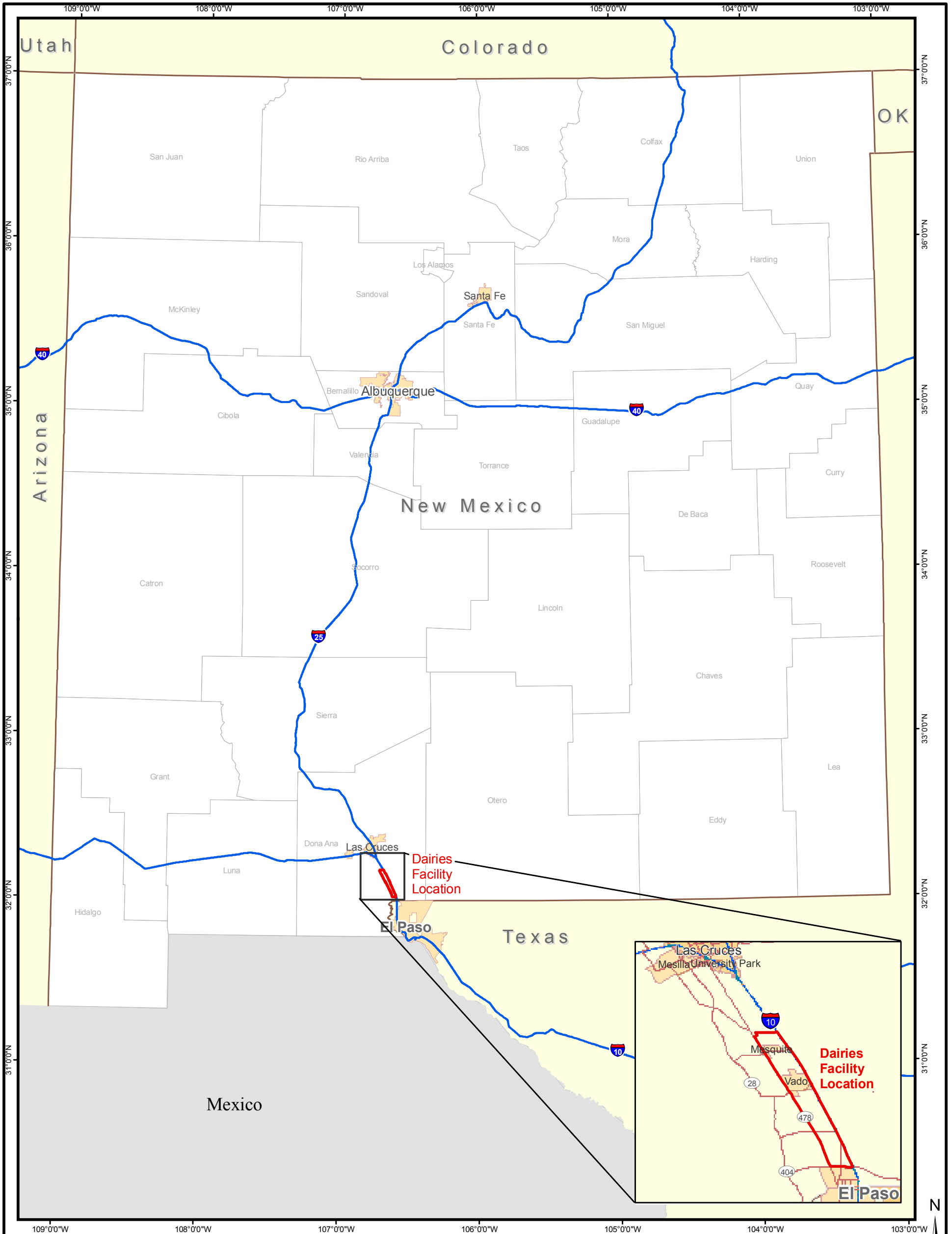
Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
257/260-01	21-Nov-12	13.0	3.50	722	3,020
	16-Aug-12	3.67	6.30	667	2,620
	26-Apr-12	6.83	2.80	575	2,660
	14-Feb-12	9.68	<2.17	565	2,180
	1-Nov-11	16.7	2.94	658	2,850
	22-Jul-11	4.66	3.64	440	1,860
	26-Apr-11	<0.500	4.34	624	2,580
	19-Jan-11	1.21	4.20	480	1,860
	24-Sep-10	11.0	<10.0	576	2,480
	30-Jun-10	5.4	<5.0	530	1,980
	23-Mar-10	5.0	ND	340	982
	14-Dec-09	45	26.32	220	520
	31-Aug-09	0.3	8.7	570	1,704
	2-Jun-09	1.65	7.0	660	1,936
3-Mar-09	3.98	1.12	555	1,908	
<b>McAnally Enterprises</b>					
MW-4	13-Mar-09	3.5	<0.5	2,110	5,686
<b>Southern Area</b>					
<b>Del Oro Dairy</b>					
692-01	30-Nov-12	117	<1.72	821	3,490
	20-Aug-12	Pump was not operational			
	8-May-12	163	<1.72	1,060	4,820
	17-Feb-12	166	7.28	1,090	4,000
	8-Nov-11	168	6.44	1,180	4,690
	29-Jul-11	176	<2.17	1,210	4,840
	22-Apr-11	140	3.22	998	3,880
	19-Jan-11	213	2.10	1,070	4,320
	1-Oct-10	222	<10.0	1,060	4,640
	30-Jun-10	230	<5.0	1,100	4,080
	30-Mar-10	117.5	3	1,080	3,991
	8-Dec-09	107	1	1,060	4,897
	12-Aug-09	127	3	1,120	4,955
	4-May-09	120	3	1,160	4,295
692-02	30-Nov-12	<0.0290	<1.72	358	1,450
	20-Aug-12	1.72	<1.72	371	1,460
	8-May-12	1.75	<1.72	339	1,350
	17-Feb-12	2.55	<2.17	410	1,490
	31-Oct-11	4.69	<2.17	451	1,720
	29-Jul-11	24.1	<2.17	504	2,280
	27-Apr-11	92.3	<10.0	921	3,080
	26-Jan-11	47.2	3.64	706	2,490
	1-Oct-10	Not Sampled			
	30-Jun-10	140	<5.0	1,100	3,520
	30-Mar-10	107.5	1	1,320	3,861
	8-Dec-09	96	1	1,200	4,073
	12-Aug-09	66	3	1,140	4,317
	4-May-09	52	1	1,100	3,337
692-03	30-Mar-10	Plugged and Abandoned			
	4-May-09	Plugged and Abandoned			
692-04	30-Nov-12	24.3	<1.72	573	2,540
	20-Aug-12	42.1	<1.72	689	2,850
	8-May-12	39.6	<1.72	652	2,490
	17-Feb-12	30.2	<2.17	557	2,060
	31-Oct-11	22.9	<2.17	477	1,600
	29-Jul-11	25.2	<2.17	503	1,960
	22-Apr-11	98.5	<2.17	893	3,240
	19-Jan-11	148	3.22	1040	3,740
	28-Sep-10	67.0	<10.0	802	3,060
	30-Jun-10	50	<5.0	590	2,050
	30-Mar-10	28	1	600	2,012
	8-Dec-09	31	1	590	2,069
	12-Aug-09	26	1	680	2,158
	4-May-09	26	1	580	2,081
692-05	29-Nov-12	2.28	<1.72	397	1,370
	16-Aug-12	2.73	17.6	455	1,520
	7-May-12	1.92	3.08	420	1,570
	17-Feb-12	2.52	<2.17	423	1,310
	8-Nov-11	2.30	2.94	383	1,230
	1-Aug-11	<1.00	3.50	420	1,710
	26-Apr-11	<2.50	<10.0	401	1,710
	19-Jan-11	4.12	2.10	443	1,280
	1-Oct-10	3.10	<10.0	420	1,430
	30-Jun-10	2.1	<1.0	500	1,490
	30-Mar-10	1.5	1	480	1,501
	8-Dec-09	1.4	1	540	1,538
	12-Aug-09	0.8	1	500	1,602
	4-May-09	1.0	1	500	1,477

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
692-06	4-Dec-12	2.19	<1.72	395	1,380
	16-Aug-12	3.24	3.36	418	1,400
	8-May-12	2.62	<1.72	397	1,620
	17-Feb-12	9.39	<2.17	459	1,200
	8-Nov-11	6.46	<2.17	425	1,450
	1-Aug-11	6.07	2.80	409	1,500
	26-Apr-11	4.50	<10.0	422	1,590
	19-Jan-11	4.95	2.10	431	1,360
	1-Oct-10	11.0	<10.0	373	1,490
	30-Jun-10	7.4	<1.0	440	1,470
	30-Mar-10	3.9	1	460	1,532
	8-Dec-09	2.3	1	540	1,609
	12-Aug-09	2.8	1	440	1,555
	4-May-09	2.9	1	500	1,552
692-07	30-Nov-12	4.05	<1.72	535	1,660
	16-Aug-12	5.36	3.50	549	1,780
	8-May-12	3.55	<1.72	530	1,780
	17-Feb-12	4.76	<2.17	518	1,600
	12-Nov-11	5.22	<2.17	555	780
	1-Aug-11	<1.00	2.66	567	2,000
	26-Apr-11	39.3	<10.0	694	2,520
	19-Jan-20	17.2	2.38	589	1,100
	1-Oct-10	27.0	< 10.0	617	2,300
	30-Jun-10	Not Sampled			
	30-Mar-10	42	1	820	2,967
	8-Dec-09	28	1	860	3,131
	12-Aug-09	36	1	780	3,041
	4-May-09	50	1	960	3,480
692-08	30-Nov-12	11.7	<1.72	393	1,500
	20-Aug-12	2.98	<1.72	410	1,340
	8-May-12	1.84	<1.72	364	1,560
	17-Feb-12	3.94	<2.17	452	1,390
	8-Nov-11	2.60	2.80	436	1,340
	1-Aug-11	<1.00	<2.17	386	2,240
	26-Apr-11	3.49	<10.0	435	1,440
	19-Jan-11	3.26	<2.05	431	1,120
	1-Oct-10	5.70	<10.0	386	1,390
	30-Jun-10	3.5	<1.0	460	1,430
	30-Mar-10	3.0	1	520	1,518
	8-Dec-09	2.5	1	500	1,459
	12-Aug-09	1.8	1	520	1,476
	4-May-09	2.0	1	480	1,476
692-09	29-Nov-12	7.91	13.3	425	1,410
	20-Aug-12	7.71	<1.72	400	1,480
	7-May-12	7.80	<1.72	391	1,470
	17-Feb-12	6.89	<2.17	457	1,450
	8-Nov-11	10.6	<2.17	455	1,400
	1-Aug-11	12.6	<2.17	407	1,300
	26-Apr-11	10.8	<10.0	420	1,140
	18-Jan-11	12.0	<2.05	460	1,160
	1-Oct-10	15.0	<10.0	387	1,480
	30-Jun-10	22	<5.0	480	1,500
	30-Mar-10	11	1	520	1,606
	8-Dec-09	10	1	460	1,536
	12-Aug-09	6	1	460	1,675
	4-May-09	6	1	480	1,545
<b>NMWQCC Standard</b>		<b>10</b>	<b>NA</b>	<b>250</b>	<b>1,000</b>

NOTES:  
 Data suspect  
 ND = Non-detect  
 NMWQCC = New Mexico Water Quality Control Commission  
 TDS = Total dissolved solids  
 TKN = Total Kjeldahl nitrogen  
 Highlight is at or above NMWQCC Standard

## **FIGURES**

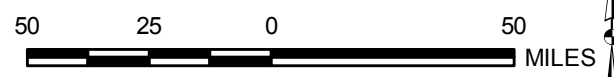


**LEGEND:**


 Facility Boundary

**REFERENCES**

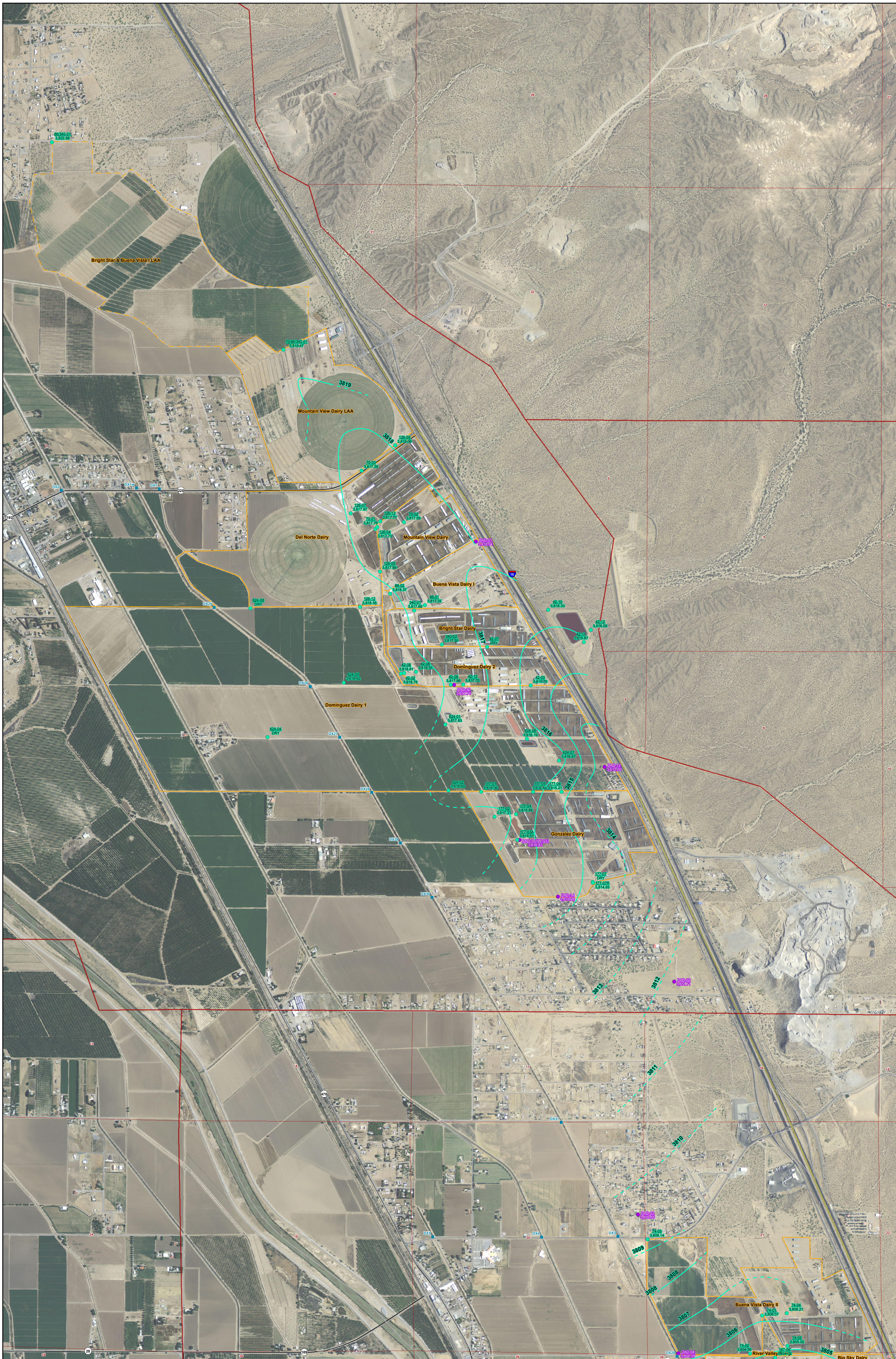
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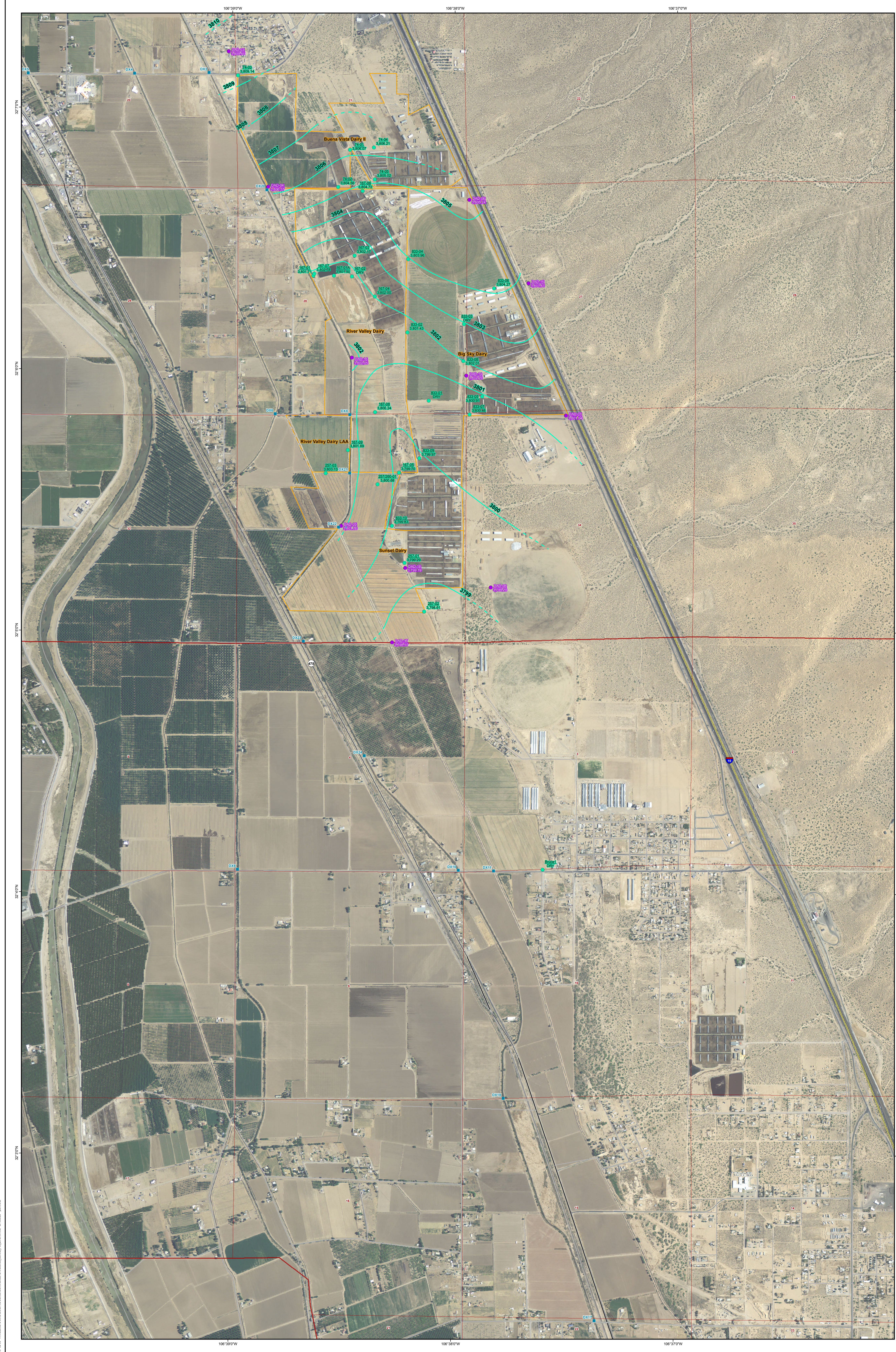


SCALE 1:2,500,000  
WHEN PRODUCED AT 11X17IN

PROJECT		DOÑA ANA DAIRIES MESQUITE, NEW MEXICO	
TITLE		SITE LOCATION MAP	
	PROJECT No.	11x17_siteloc.mxd	
	DESIGN		SCALE AS SHOWN
	GIS		REV 0
	CHECK		
REVIEW		<p><b>FIGURE 1</b></p>	

- LEGEND**
- Drain Crossing Location
  - Discharge Plan Well With Water Elevations (Feet MSL)
  - Abatement Plan Well With Water Elevations (Feet MSL)
  - Potentiometric Contour
  - Potentiometric Contour - Assumed
  - Interstate Highway
  - State Highway
  - Other Road
  - Land Owned by Dairies
  - Land Application on Non-Dairy Property
  - Public Land Survey System
- Notes:**  
 NM = Not Measured  
 \* = Suspect Data (Point not used in contouring)





- LEGEND**
- Drain Crossing Location
  - Discharge Plan Well With Water Elevations (Feet MSL)
  - Abatement Plan Well With Water Elevations (Feet MSL)
  - Potentiometric Contour
  - - - Potentiometric Contour - Assumed
  - Interstate Highway
  - State Highway
  - Other Road
  - Land Owned by Dairies
  - Land Application on Non-Dairy Property
  - Public Land Survey System
- Note:  
 NM = Not Measured  
 \* = Suspect Data (Point not used in contouring)

**REFERENCES**  
 Roads: Doña Ana County, 2001  
 Aerial Photography: NAFI, 2011  
 PLSS: BLM, 2000  
 Projection: State Plane NAD 83 New Mexico Central (feet)



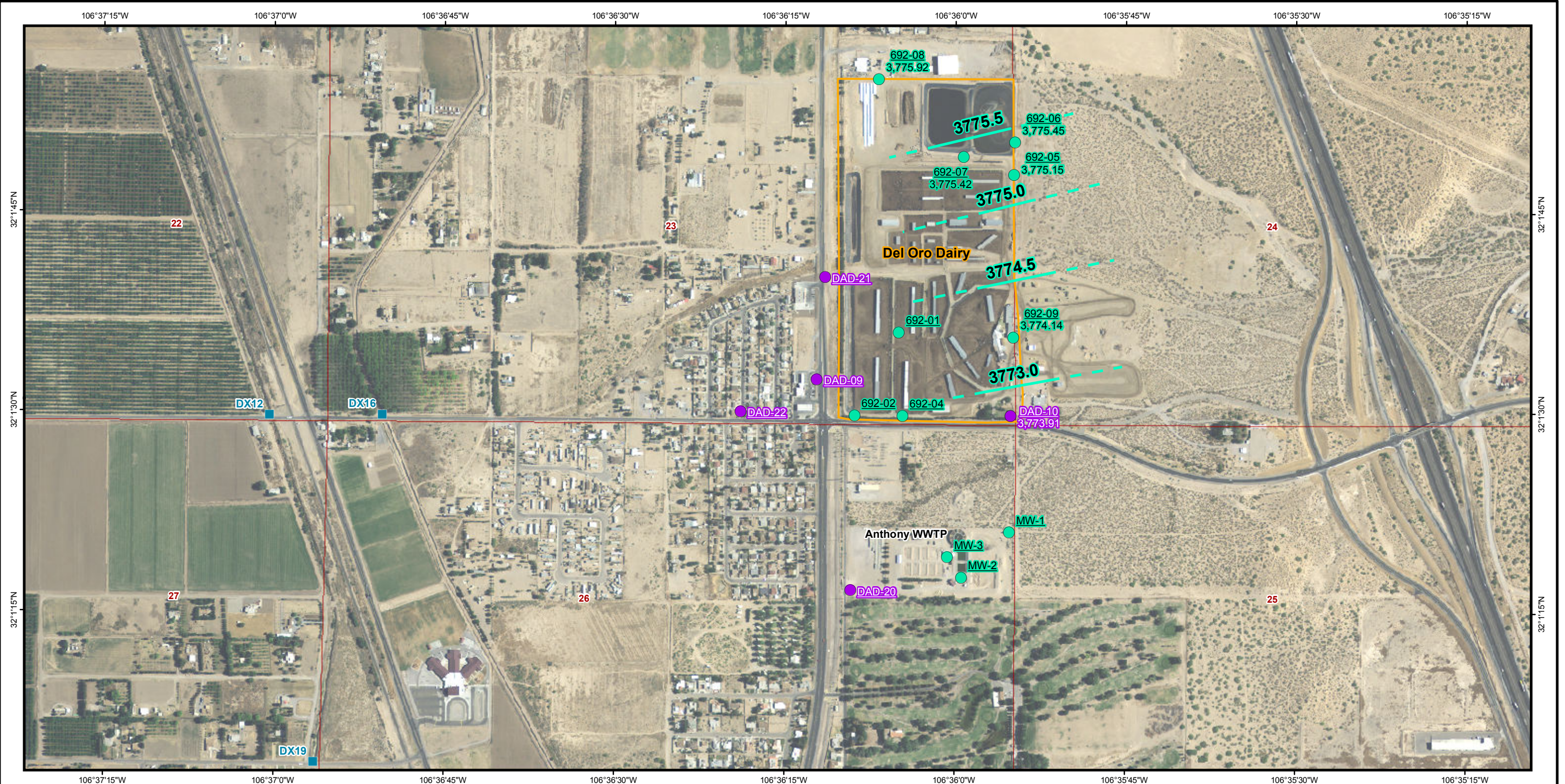
PROJECT: DOÑA ANA DAIRIES  
 MESQUITE, NEW MEXICO

MAP: POTENTIOMETRIC SURFACE MAP,  
 OCTOBER 2012, CENTRAL PORTION

DATE:	10/20/12	BY:	DAVID G. HARRIS
SCALE:	1:8,000	DATE:	10/20/12
PROJECT:	DOÑA ANA DAIRIES	DATE:	10/20/12
MAP:	POTENTIOMETRIC SURFACE MAP	DATE:	10/20/12
SCALE:	1:8,000	DATE:	10/20/12

FIGURE 3

2013-02-07 R:\Industrial & Other\Dona Ana Dairies\GIS\MXDs\2012\10\SouthRegionAq\_Pot\_201210.mxd EA-Dallas\_jschwartz



- LEGEND:**
- Drain Crossing Location
  - Discharge Plan Well With Water Elevations (Feet MSL)
  - Abatement Plan Well With Water Elevations (Feet MSL)
  - Potentiometric Contour
  - Potentiometric Contour - Assumed
  - Land Owned by Dairies
  - Public Land Survey System

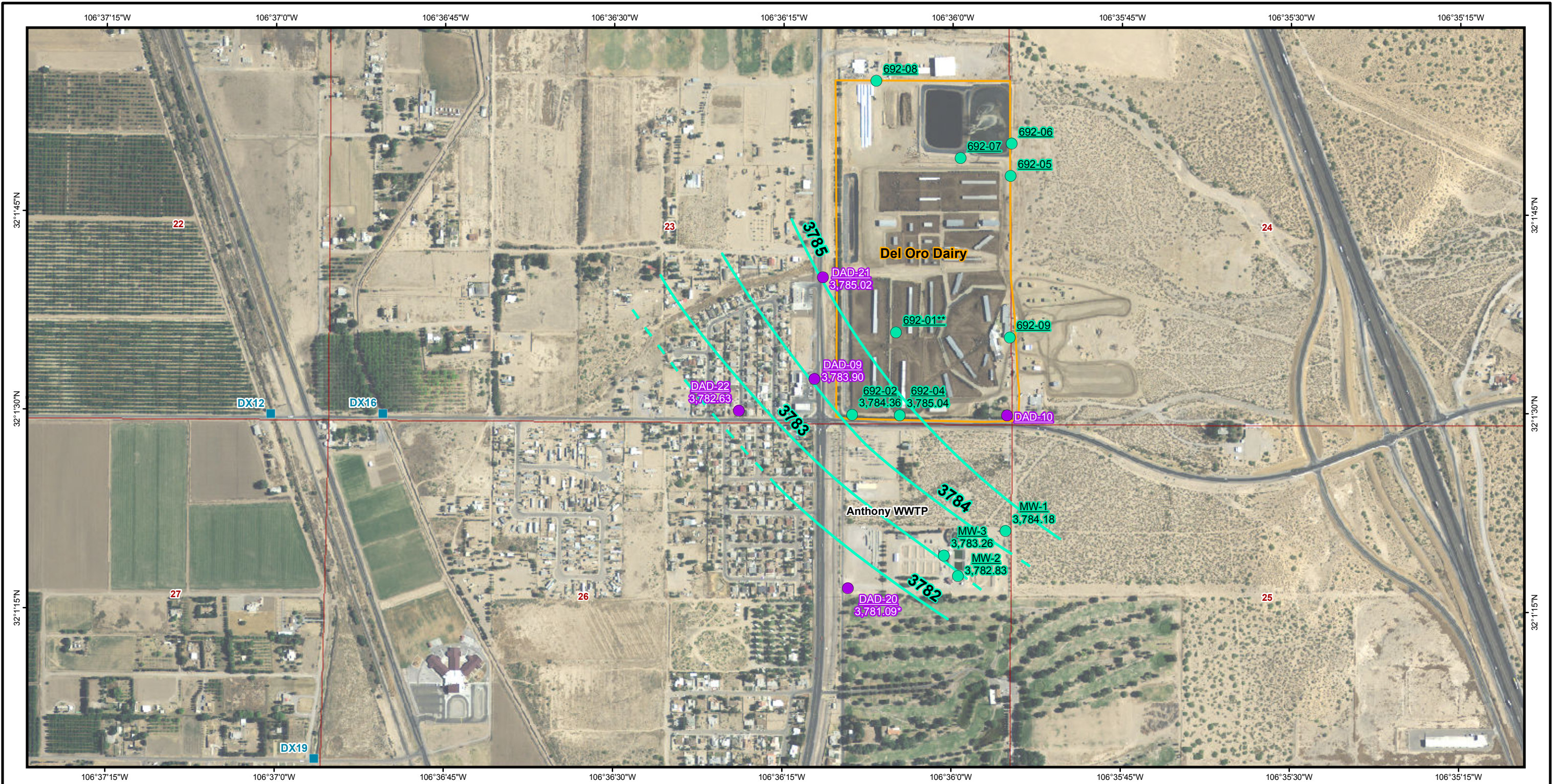
400 200 0 400  
 FEET  
 SCALE 1:9,000 1" = 750 FT  
 WHEN PRODUCED AT 11X17IN



**REFERENCES**  
 Aerial Photography: NAIP, 2011  
 PLSS: BLM, 2000  
 Projection: State Plane NAD 83 New Mexico Central (feet)

<b>PROJECT</b>		<b>DOÑA ANA DAIRIES MESQUITE, NEW MEXICO</b>	
<b>TITLE</b>		<b>POTENTIOMETRIC SURFACE MAP, OCTOBER 2012, SOUTHERN PORTION REGIONAL AQUIFER</b>	
	PROJECT No.	deloro_pot_regional200908.mxd	
	DESIGN		SCALE AS SHOWN   REV 0
	GIS		
	CHECK REVIEW		
			FIGURE 4

2013-02-21 R:\Industrial & Other\Dona Ana Dairies\GIS\MXDs\2012\10\SouthPerchAq\_Pot\_201210.mxd EA-Dallas\_jschwartz



**LEGEND:**

- Drain Crossing Location
- Discharge Plan Well With Water Elevations (Feet MSL)
- Abatement Plan Well With Water Elevations (Feet MSL)
- Potentiometric Contour
- - - Potentiometric Contour - Assumed
- Land Owned by Dairies
- Public Land Survey System

**Note:**  
 \* = DAD-20 water elevation obtained November 7, 2012 after obstruction removed.  
 \*\* = 692-01 well pumps intermittently; not used in contouring

400 200 0 400  
 FEET  
 SCALE 1:9,000 1" = 750 FT  
 WHEN PRODUCED AT 11X17IN



**REFERENCES**

Aerial Photography: NAIP, 2011  
 PLSS: BLM, 2000  
 Projection: State Plane NAD 83 New Mexico Central (feet)

<b>PROJECT</b>		<b>DOÑA ANA DAIRIES MESQUITE, NEW MEXICO</b>	
<b>TITLE</b>		<b>POTENTIOMETRIC SURFACE MAP, OCTOBER 2012, SOUTHERN PORTION PERCHED AQUIFER</b>	
		<b>FIGURE 5</b>	
PROJECT No.	deloro_pot_regional200908.mxd		
DESIGN	SCALE	AS SHOWN	
GIS	REV 0		
CHECK			
REVIEW			







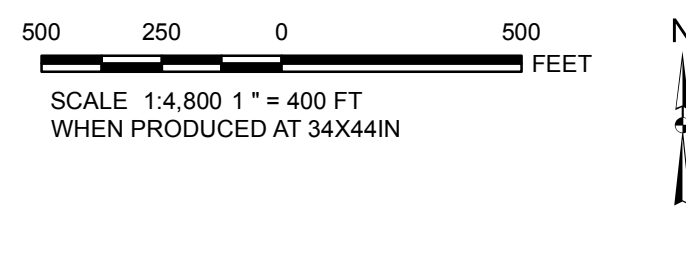
**LEGEND:**

- Abatement Plan Monitoring Wells
- Discharge Plan Monitoring Wells
- Interstate Highway
- State Highway
- Other Road
- Land Owned by Dairies
- Land Application on Non-Dairy Property
- Public Land Survey System

**Note:**  
Units are in milligrams per kilogram

**REFERENCES**

Roads: Doña Ana County, 2001  
 Aerial Photography: NAIP, 2011  
 PLSS: BLM, 2000  
 Projection: State Plane NAD 83 New Mexico Central (feet)



PROJECT: DOÑA ANA DAIRIES  
 MESQUITE, NEW MEXICO

GROUND WATER ANALYTICAL RESULTS  
 NOVEMBER AND DECEMBER 2012,  
 CENTRAL PORTION

DATE:	DATE:	DATE:	DATE:
TIME:	TIME:	TIME:	TIME:
BY:	BY:	BY:	BY:
REVISION:	REVISION:	REVISION:	REVISION:

EA

FIGURE 7

2012-02-07 10:48:14 AM DOÑA ANA DAIRIES GROUND WATER ANALYTICAL RESULTS NOVEMBER AND DECEMBER 2012, CENTRAL PORTION



106°36'15"W 106°36'0"W 106°35'45"W

32°20'N

32°20'N

32°145'N

32°145'N

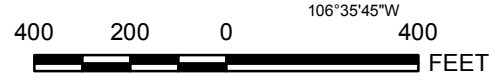
32°130'N

32°130'N

32°115'N

32°115'N

106°36'15"W 106°36'0"W 106°35'45"W



SCALE 1:4,800 1" = 400 FT  
WHEN PRODUCED AT 11X17IN



**LEGEND:**

- Abatement Plan Monitoring Wells
- Discharge Plan Monitoring Wells
- Land Owned by Dairies
- Public Land Survey System

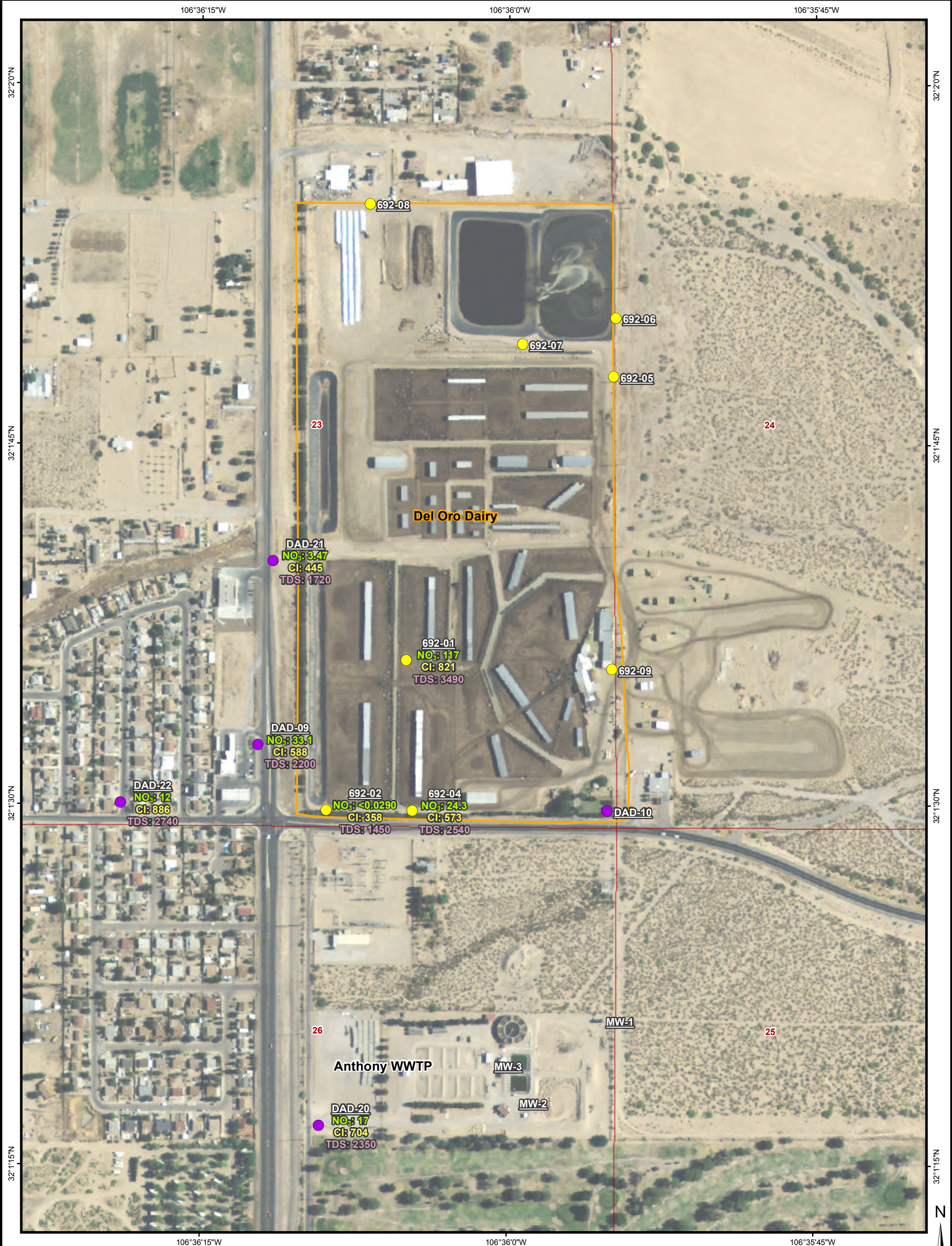
Units are in milligrams per kilogram

**REFERENCES**

Aerial Photography: NAIP, 2011  
PLSS: BLM, 2000  
Projection: State Plane NAD 83 New Mexico Central (feet)

<b>PROJECT</b>		<b>DOÑA ANA DAIRIES MESQUITE, NEW MEXICO</b>	
<b>TITLE</b>		<b>GROUNDWATER ANALYTICAL RESULTS NOVEMBER AND DECEMBER 2012, SOUTHERN PORTION, REGIONAL AQUIFER</b>	
<b>PROJECT No.</b>		analytical_regional200908.mxd	
<b>DESIGN</b>		SCALE AS SHOWN	REV 0
<b>GIS</b>		<b>FIGURE 8</b>	
<b>CHECK</b>			
<b>REVIEW</b>			





**LEGEND:**

- Abatement Plan Monitoring Wells
- Discharge Plan Monitoring Wells
- Land Owned by Dairies
- Public Land Survey System

Units are in milligrams per liter

**REFERENCES**

Aerial Photography: NAIP, 2011  
 PLSS: BLM, 2000  
 Projection: State Plane NAD 83 New Mexico Central (feet)

<b>PROJECT</b>		<b>DOÑA ANA DAIRIES MESQUITE, NEW MEXICO</b>	
<b>TITLE</b>		<b>GROUNDWATER ANALYTICAL RESULTS NOVEMBER AND DECEMBER 2012, SOUTHERN PORTION, PERCHED AQUIFER</b>	
<b>PROJECT No.</b>	deloro_analytical_perched200908.mxd	<b>SCALE</b>	AS SHOWN
<b>DESIGN</b>			REV 0
<b>GIS</b>		<b>FIGURE 9</b>	
<b>CHECK</b>			
<b>REVIEW</b>			



**APPENDIX A  
SAMPLING FIELD FORMS**

MONITOR WELL FLUID GAUGING FIELD FORM  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO

Monitoring Well	Northing	Easting	Date	Time	Depth to Water (ft) <sup>b</sup>	Notes or Total Depth (ft) <sup>b</sup>
<b>NORTHERN AREA</b>						
<b>Northern Land Application Area (DP-340)</b>						
70-03	424580.78	1510233.88	10-24-12	7:40	54.05	65.19
70/86/340-01	427320.92	1508461.05	10-24-12	7:58	47.30	67.60
86/340-01	432021.33	1503216.90	10-24-12	7:19	53.10	71.06
<b>Del Norte Dairy (DP-126)</b>						
126-04	423258.23	1510546.24	10-24-12	9:07	32.58	38.03
126-05	422293.26	1510649.84	10-24-12	9:12	24.96	35.18
126-07	423613.62	1509986.47	10-24-12	9:35	32.97	38.53
126-09	425154.15	1510994.31	10-24-12	9:02	75.29	81.94
126-12	421492.11	1510198.45	10-24-12	9:23	20.53	30.01
126-13	423431.96	1510657.41	10-24-12	9:49	39.60	59.26
<b>Mountain View Dairy (DP-70)</b>						
70-01	423303.43	1510585.63	10-24-12	8:37	34.08	45.58
70-02	423412.73	1511192.51	10-24-12	8:31	43.66	49.68
<b>Buena Vista Dairy I (DP-86)</b>						
86-01	421534.62	1511667.76	10-24-12	10:19	47.61	54.32
86-02	421792.08	1510881.53	10-24-12	10:08	29.71	48.29
<b>Bright Star Dairy (DP-340)</b>						
340-01	421410.13	1511423.42	10-24-12	10:36	40.82	47.19
340-02	420641.08	1512051.57	10-24-12	10:53	52.26	56.81
<b>Gonzalez Dairy (DP-177)</b>						
177-01	417300.94	1512942.63	10-25-12	8:47	15.91	25.63
177-02	416738.21	1513246.51	10-25-12	8:13	17.35	25.53
177-03A	416206.71	1513777.17	10-25-12	8:00	19.18	36.10
177-04	416796.99	1513733.28	10-25-12	7:52	23.49	46.42
177-05	417302.42	1514116.55	10-25-12	7:36	35.72	49.15
177-06	417301.84	1514765.63	10-25-12	7:21	50.81	56.92
177-07R	415258.95	1515471.64	10-25-12	8:31	43.98	54.26
<b>Dominguez 2 Dairy (DP-42)</b>						
42-02	419982.45	1511126.19	10-24-12	13:07	25.91	NO TD HAS PUMP
42-03	419710.55	1514064.35	10-24-12	11:07	82.70	NO TD HAS PUMP
42-06	420021.61	1511465.15	10-24-12	12:51	31.80	NO TD HAS PUMP
42-07	420584.80	1513076.66	10-24-12	12:32	Dry	NO TD HAS PUMP
42-08	419994.93	1511197.91	10-24-12	12:57	27.92	NO TD HAS PUMP
42-09	419729.17	1512255.76	10-24-12	11:13	47.29	NO TD HAS PUMP
42-10	421426.39	1514460.40	10-24-12	12:07	112.95	NO TD HAS PUMP
42-11	420693.98	1515270.32	10-24-12	12:25	123.44	NO TD HAS PUMP
42-12	420972.09	1515423.88	10-24-12	12:19	129.74	NO TD HAS PUMP
42-13	419734.06	1512534.42	10-24-12	11:27	55.40	NO TD HAS PUMP

MONITOR WELL FLUID GAUGING FIELD FORM  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO

Monitoring Well	Northing	Easting	Date	Time	Depth to Water (ft) <sup>b</sup>	Notes or Total Depth (ft)
<b>Dominquez Dairy (DP-624)</b>						
624-01	418826.21	1512131.46	10-24-12	13:45	25.89	46.60
624-02	417335.25	1512201.42	10-24-12	14:57	18.85	31.41
624-04	418542.24	1508104.07	10-24-12	14:36	Dry	16.34
624-05	419777.52	1509829.65	10-24-12	14:15	16.35	17.25
624-06	418502.42	1513981.08	10-24-12	13:33	51.99	52.34
624-07	418012.23	1514707.77	10-24-12	13:25	55.58	55.67
624-08	421461.78	1507712.04	10-24-12	13:59	Dry	19.32
CENTRAL AREA						
<b>Buena Vista Dairy II (DP-74)</b>						
74-01	405434.93	1519310.15	10-25-12	11:15	24.94	45.44
74-02	404574.08	1519035.52	10-25-12	11:02	16.02	20.41
74-03	407163.61	1516711.72	10-25-12	10:39	14.22	20.25
74-04	405488.65	1519864.48	10-25-12	11:25	46.96	58.55
74-05	404747.71	1519885.30	10-25-12	11:36	40.33	57.24
<b>River Valley Dairy (DP-167)</b>						
167-01	402518.37	1518459.71	10-25-12	9:58	17.23	108.09
167-01A	402518.18	1518936.72	10-25-12	10:15	17.38	25.03
167-02	402498.30	1519354.81	10-25-12	9:47	Dry	23.51
167-03	402981.73	1519415.73	10-25-12	9:30	23.49	41.94
167-04	402032.19	1519884.60	10-25-12	9:39	25.60	29.71
167-05	397947.44	1520446.03	10-25-12	10:46	15.74	22.15
167-06	404479.35	1519603.88	10-25-12	9:15	30.12	37.83
167-07	402562.23	1518480.34	10-25-12	9:53	16.30	29.31
167-08	399352.96	1519889.65	10-25-12	10:35	17.72	33.81
167-09	398473.95	1519259.34	10-25-12	10:59	15.31	20.07
<b>Big Sky Dairy (DP-833)</b>						
833-01	399617.23	1521136.33	10-25-12	14:08	Dry	36.46
833-02	401200.32	1520639.92	10-25-12	14:25	<del>20</del> 34.61	57.42
833-03	401392.09	1521955.23	10-25-12	13:20	Dry	62.62
833-04	402898.52	1520659.33	10-25-12	14:38	41.83	54.11
833-05	399712.39	1522374.73	10-25-12	13:57	64.60	73.90
833-06	402219.48	1522652.04	10-25-12	13:17	73.93	85.19
833-07	399298.80	1522082.75	10-25-12	13:42	60.22	73.51
833-08	400535.64	1521938.23	10-25-12	13:33	59.75	72.97
833-09	398280.67	1520918.52	10-25-12	14:17	26.30	39.68
833-10	396715.89	1520283.60	10-25-12	14:24	20.93	37.20
<b>Sunset/Desert Land Dairy (DP-257)</b>						
257-01	395856.31	1520572.16	10-26-12	8:41	21.04	26.04
257-02	394728.34	1521030.29	10-26-12	8:29	15.06	20.96
257-03	397935.69	1518746.14	10-26-12	9:11	<del>11.00</del>	13.91 11.61 DTN
257/260-01	397678.36	1519948.22	10-26-12	7:49	13.36	20.43
SOUTHERN AREA						

MONITOR WELL FLUID GAUGING FIELD FORM  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO

Monitoring Well	Northing	Easting	Date	Time	Depth to Water (ft) <sup>a</sup>	Notes or Total Depth (ft) <sup>b</sup>
<b>Del Oro Dairy (DP-692)</b>						
692-01	373615.88	1531529.38	10-26-12	11:36	60.10	NO TD HAS PUMP
692-02	372984.72	1531192.10	10-25-12	13:47	56.98	66.34
692-04	372982.53	1531555.21	10-25-12	13:58	57.62	60.75
692-05	374807.26	1532403.00	10-26-12	10:26	79.11	NO TD HAS PUMP
692-06	375054.77	1532411.83	10-26-12	10:41	81.03	NO TD HAS PUMP
692-07	374944.88	1532019.81	10-26-12	10:53	72.78	NO TD HAS PUMP
692-08	375535.69	1531378.09	10-26-12	11:19	67.17	NO TD HAS PUMP
692-09	373575.83	1532395.09	10-26-12	10:15	82.18	NO TD HAS PUMP
<b>Anthony Waste Water Treatment Plant (DAD)</b>						
MW-1	372097.86	1532364.36	10-26-12	12:44	58.85	61.41
MW-2	NM	NM	10-26-12	12:40	60.42	63.69
MW-3	NM	NM	10-26-12	12:51	57.98	58.70
<b>ABATEMENT PLAN MONITOR WELLS</b>						
DAD-01	422970.59	1512825.76	10-29-12	9:31	68.12	76.30
DAD-02	413002.98	1517319.93	10-29-12	9:09	64.11	67.88
DAD-03	407721.31	1516497.85	10-29-12	9:36	10.93	14.55
DAD-04	404576.66	1517413.28	10-29-12	9:55	15.10	18.21
DAD-05	396712.87	1519102.06	10-29-12	11:38	14.85	23.70
DAD-06	404273.19	1522081.00	10-29-12	10:29	82.47	83.50
DAD-07	399270.18	1524320.88	10-29-12	13:20	90.34	100.72
DAD-08	395287.38	1522575.07	10-29-12	11:17	49.86	54.98
DAD-09	373259.30	1530905.70	10-29-12	13:55	54.13	62.86
DAD-10	372980.55	1532375.33	10-29-12	14:51	81.02	94.63
DAD-11	416211.35	1513814.71	10-29-12	8:37	19.07	35.39
DAD-12	419731.54	1512274.77	10-29-12	7:52	48.96	82.11
DAD-13	417879.08	1515673.13	10-29-12	8:05	85.39	92.97
DAD-14	414923.33	1514695.26	10-25-12	8:33	26.62	42.63
DAD-15			10-29-12	12:53	93.78	109.49
DAD-16	400628.77	1519350.74	10-29-12	10:05	17.23	32.72
DAD-17	393991.97	1520267.94	10-29-12	11:59	19.18	38.51
DAD-18	395714.14	1520588.96	10-29-12	11:28	22.40	57.01
DAD-19	400164.47	1522027.92	10-29-12	10:47	62.30	99.17
DAD-20	371751.45	1531188.19	10-29-12	14:23	Dry	51.74
DAD-21	374013.39	1530983.98	10-29-12	13:38	54.60	70.42
DAD-22	373029.62	1530352.69	10-29-12	14:12	45.09	50.03

NOTES:

<sup>a</sup> Horizontal Control to NM State Plane Coordinates Central NAD83 Grid Coordinates (in feet)

<sup>b</sup> Measured in feet below the top of casing at survey point on north side of well

DAD-20 Regauged on 11-7-12 after blockage removed: DTW = 52.18; Total Depth = 69.01



**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID 833-01 Date gauged 11-20-12  
 Site Big Sky Time gauged 12:48  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water Dry Feet Height of fluid column 0 Feet  
 Total depth 36.48 Feet Volume in well \_\_\_\_\_ Gallons  
 (3 well volumes = 0 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 0 Purge Method 0

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)

Actual purge volume 0 gal. Field measurements stabilized within ± 10%? 0  
 Time/date sampled 0 Purged/sampled by Angel N. Rivera  
 Sample method 0 NO Sample or purged readings well is Dry!  
 Requested analyses \_\_\_\_\_  
 Comments/observations \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 833-02 Date gauged 11-19-12  
 Site Big Sky Time gauged 11:39  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 34.60 Feet Height of fluid column 22.82 Feet  
 Total depth 57.42 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 15 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 12:16 Purge Method Redi-flow Pump

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
12:20	7	20.9	5538	8.50	240	4343
12:23	8	20.7	5910	8.12	217	4663
12:24	9	20.4	6045	7.99	209	4785
12:26	10	20.5	6037	7.92	200	4778
12:28	11	20.4	6045	7.88	194	4783
12:29	12	20.6	6055	7.83	189	4791
12:30	13	20.2	6084	7.87	185	4828
12:31	14	20.3	6075	7.79	181	4813
12:34	15	20.1	6100	7.68	176	4803

Actual purge volume 15 gal. Field measurements stabilized within ± 10%?

Time/date sampled 12:40 11-19-12 Purged/sampled by Angel N. Rivera

Sample method Redi-flow Pump

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 833-03 Date gauged 11-20-12  
Site Big Sky Time gauged 7:25  
Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
Depth to water Dry Feet Height of fluid column Ø Feet  
Total depth 62.60 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = Ø gallons)

GROUNDWATER SAMPLING DATA

Time/date purged Ø 11-20-12 Purge Method Ø

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)

Actual purge volume Ø gal. Field measurements stabilized within ± 10%? Ø

Time/date sampled Ø Purged/sampled by Angel N. Rivera

Sample method No sample or purged readings, well is dry.

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Well Casing Volumes  
2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 833-04 Date gauged 11-19-12  
 Site Big Sky Time gauged 12:58  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 41.86 Feet Height of fluid column 12.24 Feet  
 Total depth 54.10 Feet Volume in well \_\_\_\_\_ Gallons  
 (3 well volumes = 8 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 13:18 11-19-12 Purge Method Redi-flow Pump

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
13:21	1	21.6	5368	8.54	182	4186
13:27	2	21.3	5630	7.93	179	4421
13:30	3	21.2	5496	7.84	181	4305
13:32	4	21.1	5690	7.69	177	4483
13:34	5	21.2	5716	7.67	175	4492
13:36	6	21.2	5684	7.59	171	4468
13:40	7	21.3	5666	7.57	169	4453
13:45	8	21.3	5642	7.53	169	4434

Actual purge volume 8 gal. Field measurements stabilized within ± 10%?

Time/date sampled 13:52 11-19-12 Purged/sampled by Angel N. Rivera

Sample method Redi-flow Pump

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 833-05 Date gauged 11-20-12  
 Site Big Sky Time gauged 10:34  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 64.58 Feet Height of fluid column 9.32 Feet  
 Total depth 73.90 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 6 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 10:45 11-20-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						BO (mg/L)
10:49	1	22.4	4786	8.23	165	3687
10:53	2	22.5	4744	7.83	150	3666
10:56	3	22.6	4754	7.66	135	3681
10:59	4	22.2	4736	7.60	151	3667
11:03	5	22.0	4760	7.46	162	3693
11:09	6	21.7	4749	7.39	147	3697

Actual purge volume 6 gal. Field measurements stabilized within ± 10%?

Time/date sampled 11:18 11-20-12 Purged/sampled by Angel A. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID 833-06 Date gauged 11-19-12  
 Site Big Sky Time gauged 14:07  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 73.93 Feet Height of fluid column 11.24 Feet  
 Total depth 85.17 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 80 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 14:18 11-19-12 Purge Method Redi-flow Pump

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
14:23	1	21.8	4617	8.12	151	3558
14:25	2	21.7	4605	7.81	154	3548
14:27	3	21.7	4557	7.70	156	3505
14:30	4	21.5	4535	7.66	163	3485
14:33	5	21.4	4524	7.59	165	3480
14:36	6	21.4	4509	7.55	171	3469
14:38	7	21.6	4503	7.50	176	3460
14:41	8	21.3	4491	7.44	178	3453

Actual purge volume 8 gal. Field measurements stabilized within ± 10%?

Time/date sampled 14:49 11-19-12 Purged/sampled by Angel N. Rivera

Sample method Redi-flow Pump

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 833-07 Date gauged 11-20-12  
 Site Big Sky Time gauged 9:19  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 60.25 Feet Height of fluid column 13.3 Feet  
 Total depth 73.55 Feet Volume in well \_\_\_\_\_ Gallons  
 (3 well volumes = 9 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 9:24 11-20-12 Purge Method Redi Flow Pump Bailor

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
9:38	3	20.1	6585	8.25	153	5256
9:42	4	20.0	6591	7.78	153	5259
9:47	5	20.9	6587	7.60	152	5249
9:54	6	21.1	6601	7.53	157	5270
9:58	7	20.8	6550	7.56	166	5230
10:03	8	21.1	6508	7.62	178	5193
10:07	9	20.3	6702	7.50	188	4899

Actual purge volume 9 gal. Field measurements stabilized within ± 10%?

Time/date sampled 10:16 11-20-12 Purged/sampled by Angel N. Rivera

Sample method Redi Flow Pump Bailor

Requested analyses \_\_\_\_\_

Comments/observations Cannot open gate to enter with truck and use pump will only use Bailor.

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 833-08 Date gauged 11-20-12  
 Site Big Sky Time gauged 7:44  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 59.73 Feet Height of fluid column 13.26 Feet  
 Total depth 72.99 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 9 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 7:58 11-20-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
8:19	3	20.6	5620	6.90	243	4438
8:25	4	20.8	5592	7.31	215	4396
8:28	5	21.8	5574	7.36	201	4376
8:30	6	21.6	5592	7.50	197	4391
8:36	7	21.0	5612	7.54	198	4427
8:44	8	20.8	5632	7.52	199	4407
8:55	9	19.5	5601	7.71	196	4421

Actual purge volume 9 gal. Field measurements stabilized within ± 10%?

Time/date sampled 9:12 11-20-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 833-09 Date gauged 11-20-12  
 Site Big Sky Time gauged 13:03  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 26.28 Feet Height of fluid column 13.42 Feet  
 Total depth 39.70 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 9 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 13:17 11-20-12 Purge Method Redi-Flow Pump

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
13:25	3	22.2	5881	8.10	217	4632
13:27	4	21.8	5900	7.95	208	4639
13:29	5	21.7	5799	7.90	206	4562
13:33	6	21.8	5813	7.77	197	4559
13:35	7	21.6	5725	7.70	197	4490
13:38	8	21.5	5557	7.69	200	4363
13:42	9	21.6	5623	7.61	194	4419

Actual purge volume 9 gal. Field measurements stabilized within ± 10%? \_\_\_\_\_

Time/date sampled 13:46 11-20-12 Purged/sampled by Angel N. Rivera

Sample method Redi-Flow Pump

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.68 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 833-10 Date gauged 11-20-12  
 Site Big Sky Time gauged 14:09  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 20.90 Feet Height of fluid column 16.31 Feet  
 Total depth 37.21 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 11 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 14:21 11-20-12 Purge Method Redi-flo Pump

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
14:29	3	19.3	4083	8.21	145	3127
14:31	4	18.6	4025	7.91	179	3068
14:33	5	18.5	4035	7.81	183	3079
14:36	6	18.6	4015	7.73	188	3065
14:40	7	18.2	4026	7.96	211	3074
14:42	8	18.4	4029	7.69	214	3080
14:44	9	18.3	4019	7.65	212	3074
14:47	10	18.4	4026	7.57	209	3067
14:50	11	18.2	4032	7.62	203	3085

Actual purge volume 11 gal. Field measurements stabilized within ± 10%?

Time/date sampled 14:56 11-20-12 Purged/sampled by Angel N. Rivera

Sample method Redi-Flo Pump

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID 340-01 Date gauged 11-5-12  
 Site Bright Star Time gauged 13:47  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 40.86 Feet Height of fluid column 6.36 Feet  
 Total depth 47.22 Feet Volume in well \_\_\_\_\_ Gallons  
 (3 well volumes = 4 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 13:49 11-5-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
13:55	1	20.1	4912	8.13	146	3810
13:56	2	21.2	4796	7.84	160	3709
13:58	3	21.1	4782	7.63	164	3700
13:59	4	21.2	4800	7.60	168	3713

Actual purge volume 4 gal. Field measurements stabilized within ± 10%?

Time/date sampled 14:07 11-5-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID 340-02 Date gauged 11-5-12  
 Site Bright Star Time gauged 14:11  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 52.23 Feet Height of fluid column 4.58 Feet  
 Total depth 56.81 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 3 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 14:21 11-5-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
<u>14:27</u>	<u>1</u>	<u>23.4</u>	<u>4879</u>	<u>8.00</u>	<u>226</u>	<u>3769</u>
<u>14:29</u>	<u>2</u>	<u>22.2</u>	<u>4845</u>	<u>7.91</u>	<u>229</u>	<u>3741</u>
<u>14:31</u>	<u>3</u>	<u>22.1</u>	<u>4834</u>	<u>7.85</u>	<u>223</u>	<u>3737</u>

Actual purge volume 3 gal. Field measurements stabilized within ± 10%?

Time/date sampled 14:34 11-5-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID 70/86/340-01 Date gauged 11-5-12  
 Site Bright Star Time gauged 12:53  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 47.29 Feet Height of fluid column 20.31 Feet  
 Total depth 67.60 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 14 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 12:59 11-5-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
13:19	10	21.6	7200	7.55	156	5738
13:23	11	20.8	7270	7.80	167	5842
13:25	12	20.4	7663	7.58	177	6219
13:27	13	20.3	7846	7.55	183	6368
13:28	14	20.1	7428	7.51	185	5991

Actual purge volume 14 gal. Field measurements stabilized within ± 10%?

Time/date sampled 13:33 11-5-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID 86/340-01 Date gauged 11-5-12  
 Site Bright Star Time gauged 9:20  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 53.16 Feet Height of fluid column 17.90 Feet  
 Total depth 71.06 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 11 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 9:30 11-5-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
12:13	2	20.2	4030	6.62	298	3070
12:17	4	20.1	4038	7.19	259	3073
12:19	5	20.1	4025	7.23	249	3065
12:20	6	20.0	4024	7.31	243	3067
12:22	7	20.0	4010	7.34	238	3056
12:23	8	20.6	4012	7.32	230	3058
12:25	9	20.0	4027	7.35	225	3061
12:27	10	20.1	4023	7.32	221	3058
12:29	11	20.0	4018	7.42	213	3064

Actual purge volume 11 gal. Field measurements stabilized within ± 10%?

Time/date sampled 12:35 11-5-12 Purged/sampled by Clayton N. Rivers

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID 74-01 Date gauged 11-14-12  
 Site Buena Vista II Time gauged 8:43  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 34.94 Feet Height of fluid column 10.5 Feet  
 Total depth 45.44 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 7 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 8:52 11-14-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
8:58	1	20.1	5580	8.24	146	4399
9:09	2	18.5	5625	7.85	91	4451
9:13	3	19.8	5634	7.74	142	4475
9:17	4	20.2	5676	7.79	157	4481
9:20	5	20.1	5589	7.73	151	4478
9:23	6	19.7	5644	8.02	101	4451
9:28	7	21.1	5648	7.78	114	4400

Actual purge volume 7 gal. Field measurements stabilized within ± 10%?

Time/date sampled 9:36 11-14-12 Purged/sampled by Angel N. Rivera

Sample method Bailers

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 74-02 Date gauged 11-14-12  
 Site Bulan Vista II Time gauged 7:55  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 16.01 Feet Height of fluid column 4.42 Feet  
 Total depth 20.43 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 3 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 8:01 11-14-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
8:06	1	21.3	3468	8.10	250	2611
8:11	2	19.5	3469	7.78	253	2612
8:17	3	19.6	3483	7.69	255	2622
8:24	4	20.6	3460	7.62	250	2581

Actual purge volume 4 gal. Field measurements stabilized within ± 10%?

Time/date sampled 8:35 11-14-12 Purged/sampled by Angel N. Rinera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 74-03 Date gauged 11-14-12  
 Site Buena Vista II Time gauged 6:54  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 14.21 Feet Height of fluid column 6.04 Feet  
 Total depth 20.25 Feet Volume in well \_\_\_\_\_ Gallons  
 (3 well volumes = 4 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 7:16 11-14-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
7:23	1	21.5	6036	6.52	309	4781
7:26	2	22.2	6383	6.88	302	5087
7:29	3	20.6	6686	7.03	295	5343
7:39	4	21.0	6585	7.30	281	5279

Actual purge volume 4 gal. Field measurements stabilized within ± 10%?

Time/date sampled 7:42 11-14-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 74-04 Date gauged 11-14-12  
 Site Buen Vista II Time gauged 10:17  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 46.99 Feet Height of fluid column 11.58 Feet  
 Total depth 58.57 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 8 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 10:29 11-14-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TD (mg/L)
10:35	2	20.3	3257	7.92	155	2174
10:38	3	20.2	3260	8.04	155	2440
10:41	4	20.6	3240	7.89	158	2422
10:45	5	20.0	3262	7.91	168	2446
10:47	6	19.8	3252	7.87	170	2423
10:50	7	19.7	3219	7.84	168	2401
10:53	8	19.9	3213	7.79	163	2415

Actual purge volume 8 gal. Field measurements stabilized within ± 10%?

Time/date sampled 10:58 11-14-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 74-05 Date gauged 11-14-12  
 Site Buena Vista Time gauged 12:36  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 40.39 Feet Height of fluid column 16.82 Feet  
 Total depth 57.21 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 11 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 12:44 11/14/12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	<u>TDS</u> DO (mg/L)
13:08	5	21.7	3004	8.14	193	2228
13:13	6	21.4	3022	8.00	196	2236
13:20	7	21.5	2990	7.86	192	2217
13:25	8	21.5	2984	7.83	189	2209
13:32	9	21.4	2991	7.73	186	2203
13:38	10	21.3	2981	7.93	184	2193
13:46	11	21.2	2986	7.86	183	2211

Actual purge volume 11 gal. Field measurements stabilized within ± 10%?

Time/date sampled 13:54 11/14/12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 126-04 Date gauged 11-7-12  
 Site Del Norte Time gauged 11:27  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 32.58 Feet Height of fluid column 5.45 Feet  
 Total depth 38.03 Feet Volume in well \_\_\_\_\_ Gallons  
 (3 well volumes = 4 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 11:34 11-7-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
11:38	1	23.0	3734	8.15	168	2808
11:43	2	22.7	3750	7.70	187	2823
11:46	3	21.5	3788	7.64	192	2856
11:49	4	21.8	3703	7.57	196	2791

Actual purge volume 4 gal. Field measurements stabilized within ± 10%?

Time/date sampled 11:51 11-7-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 126-05 Date gauged 11-7-12  
 Site Del Norte Time gauged 12:36  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 24.93 Feet Height of fluid column 10.25 Feet  
 Total depth 35.18 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 2 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 12:39 11-7-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
12:41	.5	21.8	4266	8.70	163	3269
12:43	1	21.3	4288	8.20	176	3270
12:45	1.5	20.9	4271	8.15	189	3263
12:47	2	20.7	4257	8.00	195	3254

Actual purge volume 2 gal. Field measurements stabilized within ± 10%?

Time/date sampled 12:53 11-7-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 126-07 Date gauged 11-7-12  
 Site Del Norte Time gauged 13:41  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 32.99 Feet Height of fluid column 5.51 Feet  
 Total depth 38.50 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 1 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 13:45 11-7-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
13:48	.5	21.5	4044	8.18	198	3040
13:50	1	21.7	4033	7.81	207	3053
13:53	1.5	21.2	4048	7.60	222	3073

Actual purge volume 1.5 gal. Field measurements stabilized within ± 10%?

Time/date sampled 13:54 11-7-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 126-09 Date gauged 11-7-12  
 Site Del Norte Time gauged 14:15  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 75.31 Feet Height of fluid column 6.63 Feet  
 Total depth 81.94 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 1.5 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 14:18 11-7-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
14:21	.5	25.2	4565	8.03	238	3479
14:23	1	23.5	41620	7.86	231	3551
14:27	1.5	23.6	4750	7.83	229	3679

Actual purge volume 1.5 gal. Field measurements stabilized within ± 10%?

Time/date sampled 14:40 11-7-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations @ 1.5 gallons water level kept on going down, left bailer inside well for awhile to get full bailer.

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 126-12 Date gauged 11-7-12  
 Site Del Norte Time gauged 13:02  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 20.51 Feet Height of fluid column 9.49 Feet  
 Total depth 30.00 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 6 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 13:09 11-7-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
13:12	1	21.2	3531	8.31	192	2648
13:16	2	21.0	3535	7.86	202	2654
13:19	3	20.6	3542	7.80	205	2659
13:20	4	20.4	3529	7.66	209	2654
13:24	5	20.2	3525	7.61	212	2648
13:27	6	20.7	3537	7.57	210	2643

Actual purge volume 6 gal. Field measurements stabilized within ± 10%?

Time/date sampled 13:33 11-7-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 126-13 Date gauged 11-7-12  
 Site Del Norte Time gauged 10:37  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 39.58 Feet Height of fluid column 14.66 Feet  
 Total depth 59.24 Feet Volume in well \_\_\_\_\_ Gallons  
 (3 well volumes = 2.5 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 10:53 11-7-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
11:08	1	21.4	4567	8.34	105	3520
11:10	1.5	21.4	4549	8.00	117	3500
11:13	2	21.3	4539	7.68	123	3490
11:15	2.5	21.5	4524	7.60	130	3493

Actual purge volume 2.5 gal. Field measurements stabilized within ± 10%?

Time/date sampled 11:18 11-7-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 692-05 Date gauged 11-29-12  
 Site De1010 Time gauged 13:11  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 78.78 Feet Height of fluid column \_\_\_\_\_ Feet  
 Total depth Pump Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 30 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 13:21 11-29-12 Purge Method well pump

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
13:26	5	23.3	2231	7.79	294	1619
13:31	10	23.0	2225	8.01	261	1616
13:44	15	23.5	2366	7.66	198	<del>1726</del> 1726
13:51	20	23.1	2361	7.79	267	1719
14:03	25	24.3	2314	8.51	263	1681
14:25	30	24.7	2229	8.00	257	1617

Actual purge volume 30 gal. Field measurements stabilized within ± 10%?

Time/date sampled 14:33 11-29-12 Purged/sampled by Angel N. Rivera

Sample method Well Pump

Requested analyses \_\_\_\_\_

Comments/observations water stops coming out for a while, have to leave pump off for about 5-7 mins. for water to come out again.

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID 692-09 Date gauged 11-29-12  
 Site Del Oro Time gauged 11:42  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 81.79 Feet Height of fluid column \_\_\_\_\_ Feet  
 Total depth Well Pump Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 30 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 11:56 11-29-12 Purge Method Well Pump

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	<del>DO</del> (mg/L) <sup>TDS</sup>
12:15	5	24.8	2286	7.83	257	1657
12:18	10	23.4	2303	7.76	228	1674
12:26	15	23.9	2314	7.96	233	1684
12:29	20	23.1	2325	7.77	241	1682
12:32	25	23.3	2318	7.62	233	1700
12:37	30	23.7	2332	7.55	229	1690

Actual purge volume 30 gal. Field measurements stabilized within ± 10%?

Time/date sampled 12:42 11-29-12 Purged/sampled by Angel A. Rivera

Sample method Well Pump

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 692-06 Date gauged 11-30-12  
 Site Del Oro Time gauged 8:59  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 80.97 Feet Height of fluid column \_\_\_\_\_ Feet  
 Total depth Pump Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 30 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 9:13 11-30-12 Purge Method Batter Well Pump

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	BO (mg/L)	TDS
	5						
	10						
	15						
	20						
	25						
	30						

Actual purge volume 0 gal. Field measurements stabilized within ± 10%?

Time/date sampled 11-30-12 Purged/sampled by Angel N. Rivera

Sample method Well Pump

Requested analyses \_\_\_\_\_

Comments/observations Well pump did not work, went back to pump @ 12:50 and still not working. Could not purged or sample.

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

Spoke to Jerry from Del Oro he will get pump out of well and monday I will use bailers to purged well.

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID 692-01 Date gauged 11-30-12  
 Site Del oro Time gauged 11:51  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 60.07 Feet Height of fluid column \_\_\_\_\_ Feet  
 Total depth Pump Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 20 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 11:59 11-30-12 Purge Method Well Pump

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
<u>12:04</u>	<u>5</u>	<u>23.8</u>	<u>4780</u>	<u>7.61</u>	<u>230</u>	<u>3679</u>
<u>12:06</u>	<u>10</u>	<u>22.5</u>	<u>4772</u>	<u>7.76</u>	<u>235</u>	<u>3760</u>
<u>12:08</u>	<u>15</u>	<u>22.3</u>	<u>5193</u>	<u>7.44</u>	<u>231</u>	<u>4038</u>
<u>12:11</u>	<u>20</u>	<u>22.2</u>	<u>5161</u>	<u>7.36</u>	<u>222</u>	<u>4011</u>

Actual purge volume 20 gal. Field measurements stabilized within ± 10%?   

Time/date sampled 12:15 11-30-12 Purged/sampled by Angel N. Rivera

Sample method Well Pump

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID 692-07 Date gauged 11-30-12  
 Site Del Oro Time gauged 9:53  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 72.76 Feet Height of fluid column \_\_\_\_\_ Feet  
 Total depth Pump Feet Volume in well \_\_\_\_\_ Gallons  
 (3 well volumes = 30 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 9:57 11-30-12 Purge Method Well Pump

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TPS DO (mg/L)
10:04	5	21.0	2672	8.47	146	1980
10:15	10	20.3	2685	8.15	189	1991
10:23	15	20.8	2663	8.18	236	1977
10:30	20	22.0	2612	7.82	218	1927
10:37	25	22.1	2601	7.77	215	1922
10:42	30	22.2	2609	7.62	209	1916

Actual purge volume 30 gal. Field measurements stabilized within ± 10%?

Time/date sampled 10:47 11-30-12 Purged/sampled by Angel N Rivera

Sample method Well Pump

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.68 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID 692-02 Date gauged 11-30-12  
 Site Del Oro Time gauged 7:55  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 55.71 Feet Height of fluid column 10.59 Feet  
 Total depth 66.30 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 7 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 7:58 11-30-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
8:05	1	18.1	2376	8.26	224	1724
8:08	2	19.8	2326	7.78	228	1702
8:12	3	19.3	2320	7.77	230	1709
8:15	4	19.2	2311	7.67	235	1698
8:19	5	18.9	2303	7.62	236	1688
8:23	6	18.7	2298	7.50	233	1681
8:29	7	18.3	2284	7.47	235	1676

Actual purge volume 7 gal. Field measurements stabilized within ± 10%?

Time/date sampled 8:34 11-30-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID 692-04 Date gauged 11-30-12  
 Site Deloro ~~Del Oro~~ Time gauged 7:09  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 56.81 Feet Height of fluid column 3.97 Feet  
 Total depth 60.78 Feet Volume in well \_\_\_\_\_ Gallons  
 (3 well volumes = 3 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 7:21 11-30-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	<del>DO</del> TDS (mg/L)
7:27	1	20.2	3976	6.52	295	3020
7:34	2	21.0	3941	7.20	264	3001
7:38	3	19.6	3908	7.21	251	2976

Actual purge volume 3 gal. Field measurements stabilized within ± 10%?

Time/date sampled 7:41 11-30-12 Purged/sampled by Angel N. Rivera  
 Sample method Bailer  
 Requested analyses \_\_\_\_\_  
 Comments/observations \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft



**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID 692-08 Date gauged 11-30-12  
 Site Del Oro Time gauged 10:50  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 67.01 Feet Height of fluid column \_\_\_\_\_ Feet  
 Total depth Pump Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 30 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 11:05 11-30-12 Purge Method Well Pump

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
11:09	5	22.3	2188	8.24	249	1586
11:13	10	22.2	2417	7.75	173	1769
11:18	15	22.8	2408	7.67	152	1761
11:23	20	22.7	2414	7.82	160	1764
11:27	25	22.9	2389	7.63	150	1749
11:31	30	22.6	2372	7.49	131	1697

Actual purge volume 30 gal. Field measurements stabilized within ± 10%?

Time/date sampled 11:38 11-30-12 Purged/sampled by Angel N. Rivera

Sample method Well Pump

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 692-06 Date gauged 12-4-12  
 Site Del Oro Time gauged 7:19  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 80.34 Feet Height of fluid column 9.89 Feet  
 Total depth 90.23 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 7 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 1:25 12-4-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
7:39	3	21.1	2387	6.95	220	1747
7:44	4	20.2	2269	7.50	180	1662
7:53	5	19.3	2261	7.73	174	1650
7:59	6	20.3	2251	7.46	181	1644
8:06	7	21.4	2237	7.39	178	1633

Actual purge volume 7 gal. Field measurements stabilized within ± 10%?

Time/date sampled 8:11 12-4-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations Serry removed well pump and mentioned will not installed it again.

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 624-01 Date gauged 11-12-12  
 Site Dominquez 1 Time gauged 10:18  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 25.88 Feet Height of fluid column 20.74 Feet  
 Total depth 46.62 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 14 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 10:33 11-12-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
10:54	9	19.9	3961	8.05	211	3011
10:59	10	19.9	3926	7.90	208	2986
11:04	11	19.5	3953	7.80	209	3002
11:10	12	19.1	3959	7.85	218	3012
11:17	13	19.0	4003	7.83	219	3062
11:23	14	19.4	3989	7.68	213	3044

Actual purge volume 14 gal. Field measurements stabilized within ± 10%?

Time/date sampled 11:35 11-12-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 624-02 Date gauged 11-12-12  
 Site Dominquez 1 Time gauged 9:13  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 18.89 Feet Height of fluid column 12.51 Feet  
 Total depth 31.40 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 8 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 9:16 11-12-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
9:23	1	20.5	5758	7.86	222	4539
9:27	2	19.7	5817	7.58	222	4601
9:36	3	20.1	5792	7.48	223	4566
9:39	4	19.4	5823	7.51	218	4599
9:42	5	19.0	5644	7.43	216	4461
9:48	6	19.6	5833	7.40	215	4585
9:53	7	19.2	5801	7.38	215	4600
9:57	8	19.3	5816	7.35	213	4617

Actual purge volume 8 gal. Field measurements stabilized within ± 10%?

Time/date sampled 10:03 11-12-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 624-04 Date gauged 11-12-12  
 Site Dominguez I Time gauged 6:51  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water Dry Feet Height of fluid column \_\_\_\_\_ Feet  
 Total depth 16.34 Feet Volume in well \_\_\_\_\_ Gallons  
 (3 well volumes = 0 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 0 Purge Method 0

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)

Actual purge volume 0 gal. Field measurements stabilized within ± 10%? 0  
 Time/date sampled 0 Purged/sampled by Angel N. Rivera  
 Sample method 0  
 Requested analyses No sample or purged readings. well is Dry.  
 Comments/observations \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 624-05 Date gauged 11-12-12  
 Site Dominquez 1 Time gauged 7:58  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 16.37 Feet Height of fluid column .88 Feet  
 Total depth 17.25 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = .5 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 8:13 11/2/12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
8:15	.1	19.0	3148	7.93	301	2357
8:19	.2	20.4	3164	7.68	275	2359
8:22	.3	18.9	3171	7.83	270	2364
8:25	.4	19.6	3127	7.88	262	2353
8:33	.5	19.0	3186	7.94	256	2389

Actual purge volume .5 gal. Field measurements stabilized within ± 10%?

Time/date sampled 8:53 11/2/12 Purged/sampled by Angel N. Rivera

Sample method very Bailer

Requested analyses very low water flow.

Comments/observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 624-06 Date gauged 11-12-12  
 Site Dominque 2 J Time gauged 11:44  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 51.99 Feet Height of fluid column .35 Feet  
 Total depth 52.34 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = .2 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 11:47 11-12-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
11:49	.1	20.6	5461	8.71	200	4272
11:53	.2	20.5	5390	7.95	196	4219
11:57	.3	20.8	5380	7.88	192	4216

Actual purge volume .3 gal. Field measurements stabilized within ± 10%? \_\_\_\_\_

Time/date sampled 12:31 11-12-12 Purged/sampled by Ange N. Rivera

Sample method Bailer

Requested analyses Very low water flow, left Bailer inside

Comments/observations well to get samples.

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.68 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 624-07 Date gauged 11-12-12  
Site Dominquez I Time gauged 13:30  
Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
Depth to water 55.58 Feet Height of fluid column 0.09 Feet  
Total depth 55.67 Feet Volume in well \_\_\_\_\_ Gallons  
(3 well volumes = 0.05 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 0 11-12-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)

Actual purge volume 0 gal. Field measurements stabilized within ± 10%? 0

Time/date sampled 0 11-12-12 Purged/sampled by Angel N. Rivera

Sample method NONE

Requested analyses Not enough water to purge. Left Bailer inside  
Comments/observations for almost an hr and no water came on  
bailer. Not enough water to sample.

Well Casing Volumes  
2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft



## ATTACHMENT E MONITOR WELL SAMPLING FIELD FORM

### FLUID LEVEL DATA

Well ID 624-08 Date gauged 11-12-12  
 Site Dominquez 1 Time gauged 7:28  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water Dry Feet Height of fluid column \_\_\_\_\_ Feet  
 Total depth 19.32 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 0 gallons)

### GROUNDWATER SAMPLING DATA

Time/date purged 0 0 Purge Method 0

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)

Actual purge volume 0 gal. Field measurements stabilized within ± 10%? 0

Time/date sampled 0 0 Purged/sampled by Angel N. Rivera

Sample method no sample well is Dry

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 42-02 Date gauged 11-9-12  
 Site Dominquez II Time gauged 10:26  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 25.95 Feet Height of fluid column \_\_\_\_\_ Feet  
 Total depth well pump Feet Volume in well \_\_\_\_\_ Gallons  
 (3 well volumes = 30 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 10:33 11-9-12 Purge Method well pump

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
10:38	5	21.8	3298	7.57	116	2451
10:44	10	20.4	3265	7.60	122	2440
10:49	15	20.7	3263	7.51	127	2432
10:53	20	21.0	3267	7.58	19	2420
10:57	25	20.4	3277	7.40	61	2437
11:04	30	21.3	3261	7.50	90	2444

Actual purge volume 30 gal. Field measurements stabilized within ± 10%?

Time/date sampled 11:11 11-9-12 Purged/sampled by Angel N. Rivera

Sample method well pump

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 42-03 Date gauged 11-9-12  
 Site Dominguez II Time gauged 6:58  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 82.70 Feet Height of fluid column \_\_\_\_\_ Feet  
 Total depth Well Pump Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 30 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 7:15 11-9-12 Purge Method Well Pump

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
7:25	5	25.0	5950	6.96	259	4680
7:29	10	25.7	5894	7.05	181	4615
7:31	15	25.8	5882	7.08	82	4611
7:35	20	25.9	5885	7.12	79	4620
7:38	25	25.3	5877	7.20	66	4623
7:40	30	25.1	5910	7.15	76	4632

Actual purge volume 30 gal. Field measurements stabilized within ± 10%?

Time/date sampled 7:43 11-9-12 Purged/sampled by Angel N. Rivera

Sample method well pump

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 42-06 Date gauged 11-9-12  
 Site Dominquez II Time gauged 12:56  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 31.80 Feet Height of fluid column \_\_\_\_\_ Feet  
 Total depth well pump Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 30 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 13:05 11-9-12 Purge Method well pump

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
13:09	5	23.7	3868	7.78	104	2914
13:13	10	22.2	3843	7.76	109	2899
13:17	15	22.0	3863	7.81	118	2904
13:20	20	21.9	3881	7.77	123	2921
13:25	25	22.1	3908	7.82	140	2935
13:29	30	21.8	3918	7.77	144	2957

Actual purge volume 30 gal. Field measurements stabilized within ± 10%?

Time/date sampled 13:34 11-9-12 Purged/sampled by Angel N. Rivera

Sample method well pump

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID 42-07 Date gauged 11-9-12  
 Site \_\_\_\_\_ Time gauged 10:19  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water Dry Feet Height of fluid column \_\_\_\_\_ Feet  
 Total depth well Pump Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = \_\_\_\_\_ gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 11-9-12 Purge Method Dry

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)

Actual purge volume 0 gal. Field measurements stabilized within ± 10%?  

Time/date sampled   Purged/sampled by Angel N. Rivera

Sample method \_\_\_\_\_

Requested analyses well is Dry, NO Sample.

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.68 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 42-08 Date gauged 11-9-12  
 Site Dominquez II Time gauged 11:21  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 27.96 Feet Height of fluid column \_\_\_\_\_ Feet  
 Total depth well Pump Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 30 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 11:26 11-9-12 Purge Method Well Pump

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
11:29	5	25.1	2279	8.23	118	1654
11:36	10	23.1	2562	8.03	123	1879
11:39	15	22.4	2759	8.14	129	2034
11:43	20	22.7	2890	8.00	151	2140
11:47	25	23.6	2920	8.23	136	2162
11:53	30	23.8	2968	7.96	121	2172

Actual purge volume 30 gal. Field measurements stabilized within ± 10%?

Time/date sampled 11:58 11-9-12 Purged/sampled by Angel N. Rivera

Sample method well Pump

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 42-09 Date gauged 11-9-12  
 Site Dominguez II Time gauged 7:57  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 47.31 Feet Height of fluid column \_\_\_\_\_ Feet  
 Total depth Well Pump Feet Volume in well \_\_\_\_\_ Gallons  
 (3 well volumes = 30 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 8:19 11-9-12 Purge Method Well Pump

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
8:23	5	22.3	5782	7.67	123	4036
8:26	10	23.4	4784	7.62	116	3689
8:30	15	23.2	4598	7.57	99	3533
8:33	20	23.0	4551	7.40	87	3498
8:37	25	24.1	4593	7.50	67	3512
8:39	30	23.6	4540	7.44	75	3484

Actual purge volume 30 gal. Field measurements stabilized within ± 10%?

Time/date sampled 8:45 11-9-12 Purged/sampled by Angel N. Rivera

Sample method Well Pump

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 42-10 Date gauged 11-9-12  
 Site Dominquez II Time gauged 14:51  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 112.95 Feet Height of fluid column \_\_\_\_\_ Feet  
 Total depth Well Pump Feet Volume in well \_\_\_\_\_ Gallons  
 (3 well volumes = 25 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 14:52 11-9-12 Purge Method Well Pump

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
14:55	5	25.6	2290	8.16	108	1688
14:59	10	26.4	2356	7.89	140	1704
15:02	15	26.7	2334	7.77	161	1700
15:05	20	27.4	2329	7.58	144	1718
15:08	25	27.9	2316	7.49	120	1723

Actual purge volume 25 gal. Field measurements stabilized within ± 10%?

Time/date sampled 15:15 11-9-12 Purged/sampled by Angel N. Rivera

Sample method Well Pump

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 42-11 Date gauged 11-9-12  
 Site Dominguez II Time gauged 13:49  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 123.45 Feet Height of fluid column \_\_\_\_\_ Feet  
 Total depth Well Pump Feet Volume in well \_\_\_\_\_ Gallons  
 (3 well volumes = 30 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 13:54 11-9-12 Purge Method Well Pump

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
13:58	5	28.1	1933	8.32	56	1382
14:02	10	28.4	1865	7.94	84	1317
14:06	15	28.9	1977	7.81	121	1412
14:09	20	28.7	2044	7.69	138	1456
14:11	25	29.0	2049	7.64	53	1464
14:14	30	29.1	2033	7.60	40	1460

Actual purge volume 30 gal. Field measurements stabilized within ± 10%?

Time/date sampled 14:18 11-9-12 Purged/sampled by Angel N. Rivera

Sample method Well Pump

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 42-12 Date gauged 11-9-12  
 Site Dominquez II Time gauged 14:25  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 129.73 Feet Height of fluid column \_\_\_\_\_ Feet  
 Total depth Well Pump Feet Volume in well \_\_\_\_\_ Gallons  
 (3 well volumes = 25 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 14:27 11-9-12 Purge Method well Pump

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
14:32	5	27.7	2048	8.10	-60	1469
14:34	10	27.6	1966	7.93	15	1410
14:37	15	28.6	1980	7.87	112	1404
14:40	20	28.5	2033	7.80	113	1458
14:43	25	28.7	2041	7.71	115	1471

Actual purge volume 25 gal. Field measurements stabilized within ± 10%?   
 Time/date sampled 14:48 11-9-12 Purged/sampled by Angel N. Rivera  
 Sample method Well Pump  
 Requested analyses \_\_\_\_\_  
 Comments/observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.68 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 42-13 Date gauged 11-9-12  
 Site Dominquez II Time gauged 8:56  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 55.40 Feet Height of fluid column \_\_\_\_\_ Feet  
 Total depth Well Pump Feet Volume in well \_\_\_\_\_ Gallons  
 (3 well volumes = 25 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 9:08 11-9-12 Purge Method Well Pump

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
9:15	5	22.2	5527	7.85	-66	4320
9:21	10	22.9	5426	7.68	-32	4231
9:29	15	23.1	5330	7.58	21	4162
9:34	20	23.4	5312	7.70	50	4135
9:43	25	24.5	5268	7.28	42	4099

Actual purge volume 25 gal.  Field measurements stabilized within ± 10%?

Time/date sampled 9:49 11-9-12 Purged/sampled by Angel N. Rivera

Sample method Well Pump

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID DAD-10 Date gauged 12-4-12  
 Site DAD'S Time gauged 8:22  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 81.01 Feet Height of fluid column 13.60 Feet  
 Total depth 94.61 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 2.3 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 8:29 12-4-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
8:34	.5	19.7	2248	7.77	163	1646
8:39	1	19.6	2261	7.78	161	1649
8:43	1.5	20.3	2254	7.74	158	1660
8:49	2	19.2	2349	7.90	177	1713
8:53	2.5	19.1	2331	7.75	154	1729

Actual purge volume 2.5 gal. Field measurements stabilized within ± 10%? \_\_\_\_\_

Time/date sampled 8:57 12-4-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID DAD-09 Date gauged 12-4-12  
 Site DADIS Time gauged 9:42  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 54.14 Feet Height of fluid column 8.72 Feet  
 Total depth 62.86 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 1.5 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 9:52 12-4-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
9:57	.5	21.7	3565	8.09	194	2684
10:01	1	21.8	3579	7.79	191	2689
10:06	1.5	22.3	3503	7.68	188	2623
10:11	2	22.4	3478	7.56	186	2605

Actual purge volume 2 gal. Field measurements stabilized within ± 10%?

Time/date sampled 10:15 12-4-12 Purged/sampled by Angel N. Rincón

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID DAD-22 Date gauged 12-4-12  
 Site DADS Time gauged 10:22  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 44.51 Feet Height of fluid column 5.5 Feet  
 Total depth 50.01 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 0.9 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 10:28 12-4-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	<sup>TDS</sup> DO (mg/L)
10:32	.5	21.4	4296	8.15	176	3285
11:12	1	23.4	4065	8.33	194	3163
11:23	1.5	23.2	4182	7.97	180	3175

Actual purge volume 1.5 gal. Field measurements stabilized within ± 10%?

Time/date sampled 11:28 12-4-12 Purged/sampled by Angel W. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations low water flow.

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID DAD-21 Date gauged 12-4-12  
 Site DAD'S Time gauged 11:36  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 54.56 Feet Height of fluid column 15.88 Feet  
 Total depth 70.44 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 2.6 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 11:44 12-4-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
11:51	.5	22.2	2786	8.07	239	2067
11:54	1	21.8	2773	7.68	235	2057
11:56	1.5	21.6	2768	7.48	236	2060
11:59	2	21.5	2783	7.56	232	2063
12:03	2.5	21.4	2771	7.50	233	2058
12:07	3	21.6	2783	7.42	236	2069

Actual purge volume 3 gal. Field measurements stabilized within ± 10%?

Time/date sampled 12:14 12-4-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID DAD-20 Date gauged 12-4-12  
 Site DAD'S Time gauged 12:33  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 52.17 Feet Height of fluid column 16.85 Feet  
 Total depth 69.02 Feet Volume in well \_\_\_\_\_ Gallons  
 (3 well volumes = 3 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 12:41 12-4-12 Purge Method Boiler

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TPS DO (mg/L)
12:44	.5	22.5	3766	8.13	271	2843
12:48	1	21.7	3798	7.98	277	2869
12:51	1.5	22.1	3677	7.87	265	2790
12:55	2	22.0	3630	7.84	263	2739
12:58	2.5	21.9	3611	7.75	258	2720
13:05	3	22.2	3565	7.68	248	2680

Actual purge volume 3 gal. Field measurements stabilized within ± 10%?

Time/date sampled 13:09 12-4-12 Purged/sampled by Angel M. Rivera

Sample method Boiler

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft



**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID DAD-15 Date gauged 12-4-12  
 Site DAD's Time gauged 13:25  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 93.77 Feet Height of fluid column 15.72 Feet  
 Total depth 109.49 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 2.67 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 13:31 12-4-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
13:35	.5	23.9	2835	7.71	230	2105
13:39	1	23.7	2801	7.68	162	2078
13:43	1.5	23.6	2815	7.62	119	2087
13:48	2	23.1	2836	7.56	122	2110
13:54	2.5	23.2	2819	7.48	134	2091
14:03	3	23.3	2838	7.35	132	2108

Actual purge volume 3 gal. Field measurements stabilized within ± 10%?

Time/date sampled 14:11 12-4-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID DAD-04 Date gauged 12-5-12  
 Site DAD's Time gauged 7:06  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 15.12 Feet Height of fluid column 3.1 Feet  
 Total depth 18.22 Feet Volume in well \_\_\_\_\_ Gallons  
 (3 well volumes = .5 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 7:14 12-5-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
7:21	.5	19.8	3928	7.51	81	2986
7:23	1	19.9	3914	7.66	39	3001
7:27	1.5	19.4	3941	7.72	49	2988

Actual purge volume 1.5 gal. Field measurements stabilized within ± 10%?

Time/date sampled 7:31 12-5-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID DAD-05 Date gauged 12-5-12  
 Site DAD'S Time gauged 8:43  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 14.83 Feet Height of fluid column 8.87 Feet  
 Total depth 23.70 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 1.5 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 8:48 12-5-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
8:53	.5	17.3	4394	8.05	146	3397
8:55	1	19.1	4439	7.79	149	3424
8:58	1.5	18.5	4452	7.76	152	3436
9:00	2	19.2	4474	7.66	154	3467

Actual purge volume 2 gal. Field measurements stabilized within ± 10%?

Time/date sampled 9:04 12-5-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID DAD-06 Date gauged 12-5-12  
 Site DAD's Time gauged 13:22  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 82.51 Feet Height of fluid column 0.97 Feet  
 Total depth 83.48 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 0.16 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 13:29 12-5-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
13:32	.00	24.3	2527	8.32	186	1851
13:33	.11	24.1	2463	8.00	185	1797
13:35	.12	23.3	2483	7.90	183	1817
13:38	.13	22.4	2529	7.96	182	1860
13:41	.14	22.1	2523	7.88	183	1866
13:43	.15	22.0	2518	7.85	180	1848
13:45	.16	22.6	2507	7.82	178	1836

Actual purge volume .16 gal. Field measurements stabilized within ± 10%?

Time/date sampled 13:50 12-5-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations very low water flow

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID DAD-07 Date gauged 12-5-12  
 Site DAD's Time gauged 14:09  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 90.29 Feet Height of fluid column 10.21 Feet  
 Total depth 100.70 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 1.7 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 14:11 12-5-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
14:14	.5	23.7	3822	7.81	194	2879
14:17	1	24.0	4003	7.55	200	3017
14:21	1.5	24.1	3889	7.33	206	2917
14:28	2	24.0	3878	7.26	198	2927

Actual purge volume 2 gal. Field measurements stabilized within ± 10%?

Time/date sampled 14:33 12-5-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID DAD-08 Date gauged 12-5-12  
 Site DADs Time gauged 11:27  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 49.86 Feet Height of fluid column 5.12 Feet  
 Total depth 54.98 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 0.87 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 11:35 12-5-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TPS DO (mg/L)
<u>11:40</u>	<u>.5</u>	<u>22.1</u>	<u>8926</u>	<u>8.32</u>	<u>182</u>	<u>7328</u>
<u>11:44</u>	<u>1</u>	<u>22.3</u>	<u>9279</u>	<u>7.87</u>	<u>180</u>	<u>7647</u>
<u>11:51</u>	<u>1.5</u>	<u>22.0</u>	<u>9663</u>	<u>7.67</u>	<u>186</u>	<u>8007</u>

Actual purge volume 1.5 gal. Field measurements stabilized within ± 10%?

Time/date sampled 11:57 12-5-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations low water flow

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID DAD-16 Date gauged 12-5-12  
 Site DADS Time gauged 7:53  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 17.23 Feet Height of fluid column 15.47 Feet  
 Total depth 32.70 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 2.6 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 7:55 12-5-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
8:03	.5	16.9	3101	8.53	95	2314
8:07	1	18.3	3110	8.08	105	2336
8:12	1.5	17.2	3326	7.98	84	2503
8:15	2	18.2	3378	7.82	98	2533
8:19	2.5	18.4	3366	7.75	104	2527
8:23	3	18.5	3443	7.71	115	2602

Actual purge volume 3 gal. Field measurements stabilized within ± 10%?

Time/date sampled 8:31 12-5-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID DAD-17 Date gauged 12-5-12  
 Site DAD's Time gauged 9:11  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 19.21 Feet Height of fluid column 19.31 Feet  
 Total depth 38.52 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 3.28 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 9:19 12-5-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	<del>DO</del> (mg/L) <sup>TDS</sup>
9:22	.5	18.7	1901	8.38	150	1378
9:25	1	20.5	1674	8.03	155	1226
9:28	1.5	20.3	1801	7.92	158	1310
9:30	2	20.6	1693	7.85	160	1212
9:33	2.5	20.2	1735	7.82	162	1244
9:37	3	20.7	1924	7.71	165	1396
9:39	3.5	20.3	1798	7.66	166	1292

Actual purge volume 3.5 gal. Field measurements stabilized within ± 10%?

Time/date sampled 9:45 12-5-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID DAD-18 Date gauged 12-5-12  
 Site DADIS Time gauged 9:56  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 22.41 Feet Height of fluid column 34.60 Feet  
 Total depth 57.01 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 5.8 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 10:19 12-5-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
10:23	1	19.6	4253	7.97	266	3268
10:27	2	18.4	4311	7.66	248	3312
10:33	3	18.3	4318	7.54	240	3321
10:38	4	17.9	4340	7.49	232	3338
10:42	5	18.1	4333	7.47	229	3346
10:46	6	17.9	4344	7.58	226	3356

Actual purge volume 6 gal. Field measurements stabilized within ± 10%?

Time/date sampled 10:53 12-5-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID DAD-19 Date gauged 12-5-12  
 Site DADS Time gauged 12:35  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 62.30 Feet Height of fluid column 36.87 Feet  
 Total depth 99.17 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 6.2 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 12:41 12-5-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TPS (mg/L)
12:48	1	22.7	4974	8.10	180	3838
12:53	2	22.4	4950	7.85	189	3825
12:56	3	22.3	4943	7.66	190	3830
12:59	4	22.2	4958	7.54	198	3819
13:02	5	22.1	4978	7.52	197	3852
13:06	6	22.0	5007	7.46	201	3883

Actual purge volume 6 gal. Field measurements stabilized within ± 10%?

Time/date sampled 13:10 12-5-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID DAD-01 Date gauged 12-3-12  
 Site DAD'S Time gauged 7:40  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 68.07 Feet Height of fluid column 8.24 Feet  
 Total depth 76.31 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 1.5 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 7:55 12-3-12 Purge Method Boiler

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
7:58	.5	23.1	2387	6.92	272	1741
8:01	1	24.0	2334	7.26	255	1702
8:05	1.5	23.8	2403	7.31	240	1764

Actual purge volume 1.5 gal. Field measurements stabilized within ± 10%?

Time/date sampled 8:08 12-3-12 Purged/sampled by Angel N. Rivera

Sample method Boiler

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID D4D-02 Date gauged 12-3-12  
 Site DAD's Time gauged 12:38  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 64.09 Feet Height of fluid column 3.77 Feet  
 Total depth 67.86 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 1 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 12:43 12-3-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
13:03	.5	23.9	1814	8.71	232	1294
13:08	1	23.1	2295	8.02	230	1671
13:12	1.5	23.2	2423	7.75	235	1777

Actual purge volume 1.5 gal. Field measurements stabilized within ± 10%?

Time/date sampled 13:14 12-3-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID DAD-03 Date gauged 12-3-12  
 Site DAD's Time gauged 13:36  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 10.93 Feet Height of fluid column 3.61 Feet  
 Total depth 14.54 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 1 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 13:39 12-3-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	<sup>FDS</sup> De (mg/L)
13:52	.5	23.1	5885	8.26	-78	4632
13:58	1	23.3	5881	7.45	-92	4644
14:12	1.5	22.9	5899	7.56	-62	4655

Actual purge volume 1.5 gal. Field measurements stabilized within ± 10%?

Time/date sampled 14:21 12-3-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations very low water flow.

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID DAD-11 Date gauged 12-3-12  
 Site DAD's Time gauged 10:13  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 19.11 Feet Height of fluid column 16.26 Feet  
 Total depth 35.37 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 11 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 10:19 12-3-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
10:32	3	25.9	3339	8.05	213	2477
10:36	4	26.2	3352	7.77	231	2498
10:41	5	26.3	3372	7.60	226	2510
10:45	6	26.0	3433	7.54	223	2559
10:49	7	26.4	4132	7.39	230	3124
10:55	8	26.0	4740	7.34	243	3639
10:59	9	25.7	49123	7.28	240	3793
11:06	10	25.9	5294	7.35	245	4104
11:11	11	26.2	5443	7.25	241	4251

Actual purge volume 11 gal. Field measurements stabilized within ± 10%?

Time/date sampled 11:16 12-3-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID DAD-12 Date gauged 12-3-12  
 Site DAD's Time gauged 8:25  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 48.94 Feet Height of fluid column 33.22 Feet  
 Total depth 82.16 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 6 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 8:32 12-3-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
8:37	1	19.3	4471	7.98	111	3478
8:40	2	19.2	4449	7.86	127	3435
8:44	3	20.1	4495	7.71	75	3483
8:49	4	20.7	4523	7.64	102	3496
8:52	5	19.5	4547	7.70	118	3528
8:56	6	20.3	4580	7.58	124	3546

Actual purge volume 6 gal. Field measurements stabilized within ± 10%?

Time/date sampled 9:02 12-3-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID DAD-13 Date gauged 12-3-12  
 Site DADS Time gauged 9:16  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 85.36 Feet Height of fluid column 7.63 Feet  
 Total depth 92.99 Feet Volume in well \_\_\_\_\_ Gallons  
 (3 well volumes = 1.3 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 9:27 12-3-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
9:31	.5	24.4	3039	8.23	164	2243
9:34	1	24.5	3047	7.89	95	2251
9:38	1.5	24.2	3079	7.76	120	2263

Actual purge volume 1.5 gal. Field measurements stabilized within ± 10%?

Time/date sampled 9:43 12-3-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft



**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID DAD-14 Date gauged 12-3-12  
 Site DAD'S Time gauged 11:32  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 26.58 Feet Height of fluid column 16.09 Feet  
 Total depth 42.67 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 3 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 11:43 12-3-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
11:47	.5	20.9	5674	8.23	-32	4463
11:50	1	20.6	5808	7.95	23	4581
11:52	1.5	20.1	5932	7.86	40	4692
11:56	2	20.4	6037	7.80	60	4781
12:01	2.5	20.0	6117	7.77	87	4853
12:05	3	19.8	6200	7.70	98	4927

Actual purge volume 3 gal. Field measurements stabilized within ± 10%?

Time/date sampled 12:09 12-3-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 177-01 Date gauged 11-13-12  
 Site Gonzalez Time gauged 14:40  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 15.90 Feet Height of fluid column 9.73 Feet  
 Total depth 25.63 Feet Volume in well \_\_\_\_\_ Gallons  
 (3 well volumes = 6 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 14:43 11-13-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TPS DO (mg/L)
14:46	1	20.8	5773	8.21	218	4559
14:48	2	21.1	5767	7.98	219	4540
14:51	3	20.9	5827	7.85	217	4596
14:55	4	20.8	5822	7.77	216	4594
14:58	5	20.7	5861	7.81	221	4620
15:04	6	20.4	5894	7.76	214	4647

Actual purge volume 6 gal. Field measurements stabilized within ± 10%?

Time/date sampled 15:10 11-13-12 Purged/sampled by Angel D. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 177-02 Date gauged 11-13-12  
 Site Gonzalez Time gauged 13:55  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 17.31 Feet Height of fluid column 8.23 Feet  
 Total depth 25.54 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 5 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 14:03 11-13-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
14:11	1	22.7	4655	8.09	263	3580
14:17	2	21.6	4861	8.05	205	3760
14:22	3	21.6	4812	7.87	204	3725
14:30	4	21.5	4853	7.77	208	3759
14:33	5	21.3	4887	7.70	216	3788

Actual purge volume 5 gal. Field measurements stabilized within ± 10%

Time/date sampled 14:37 11-13-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID 177-03A Date gauged 11-13-12  
 Site Gonzalez Time gauged 10:23  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 2 Inches  
 Depth to water 19.18 Feet Height of fluid column 16.92 Feet  
 Total depth 36.10 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 3 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 10:30 11-13-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
10:35	1	26.2	3032	8.32	107	2232
10:38	2	25.5	3244	7.82	92	2418
10:46	3	25.2	4700	7.58	75	3606

Actual purge volume 3 gal. Field measurements stabilized within ± 10%?

Time/date sampled 10:55 11-13-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 177-04 Date gauged 11-13-12  
 Site Gonzalez Time gauged 8:56  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 23.48 Feet Height of fluid column 22.94 Feet  
 Total depth 46.42 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 15 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 9:04 11-13-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
9:30	10	20.1	5796	8.08	191	4570
9:34	11	19.4	5822	7.76	194	4587
9:38	12	18.6	5870	7.68	206	4641
9:42	13	19.8	5841	7.63	208	4629
9:46	14	18.8	5838	7.70	214	4619
9:51	15	19.3	5869	7.58	223	4639

Actual purge volume 15 gal. Field measurements stabilized within ± 10%?

Time/date sampled 9:59 11-13-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.68 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 177-05 Date gauged 11-13-12  
 Site Gonzalez Time gauged 7:49  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 35.70 Feet Height of fluid column 13.45 Feet  
 Total depth 49.15 Feet Volume in well \_\_\_\_\_ Gallons  
 (3 well volumes = 9 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 7:56 11-13-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
8:17	5	16.4	5738	8.29	176	4507
8:23	6	17.8	5919	7.90	171	4711
8:29	7	18.4	5992	7.79	170	4787
8:34	8	17.4	6063	7.78	167	4824
8:41	9	17.7	6000	7.77	168	4778
		17.8	6078	7.68	162	4853

Actual purge volume 9 gal. Field measurements stabilized within ± 10%?

Time/date sampled 8:47 11-13-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 177-06 Date gauged 11-13-12  
 Site Gonzalez Time gauged 7:05  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 50.83 Feet Height of fluid column 1.01 Feet  
 Total depth 51.84 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 0.7 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 7:11 11-13-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TPS (mg/L)
7:13	0.1	18.6	5122	6.79	307	3954
7:15	0.2	18.9	4842	7.29	300	3798
7:18	0.3	18.3	4859	7.34	283	3764
7:20	0.4	17.9	4852	7.55	254	3776
7:23	0.5	18.8	4840	7.56	250	3784
7:26	0.6	18.3	4666	7.59	247	3632
7:30	0.7	18.0	4794	7.61	245	3745

Actual purge volume 0.7 gal. Field measurements stabilized within ± 10%?

Time/date sampled 7:38 11-13-12 Purged/sampled by Angel N. Rivera

Sample method Bailer.

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.68 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 177-07 R Date gauged 11-13-12  
 Site Gonzalez Time gauged 11:39  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 43.95 Feet Height of fluid column 10.31 Feet  
 Total depth 54.26 Feet Volume in well \_\_\_\_\_ Gallons  
 (3 well volumes = 7 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 11:46 11-13-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
12:07	3	19.1	5550	8.16	276	4372
12:11	4	19.0	5507	7.90	252	4344
12:16	5	18.9	5495	7.82	238	4330
12:22	6	18.8	5505	7.73	229	4349
12:28	7	18.7	5516	7.75	236	4345

Actual purge volume 7 gal. Field measurements stabilized within ± 10%?

Time/date sampled 12:34 11-13-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 70-01 Date gauged 11-7-12  
 Site Mountain View Time gauged 9:07  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 34.06 Feet Height of fluid column 11.54 Feet  
 Total depth 45.60 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 7 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 9:14 11-7-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						mg/L
9:23	3	21.3	4160	8.12	75	3175
9:27	4	21.2	4148	7.83	88	3169
9:31	5	21.4	4142	7.63	89	3159
9:32	6	21.5	4152	7.70	91	3167
9:35	7	21.0	4141	7.54	101	3162

Actual purge volume 7 gal. Field measurements stabilized within ± 10%?

Time/date sampled 9:39 11-7-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID no 70-02 Date gauged 11-7-12  
 Site Mountain View Time gauged 8:03  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 43.66 Feet Height of fluid column 6.02 Feet  
 Total depth 49.68 Feet Volume in well \_\_\_\_\_ Gallons  
 (3 well volumes = 4 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 8:10 11-7-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
8:14	1	20.0	5121	8.30	115	3997
8:16	2	19.8	5069	8.19	128	3964
8:37	3	21.1	5081	8.05	118	3976
8:41	4	21.4	5097	7.87	116	3991

Actual purge volume 4 gal. Field measurements stabilized within ± 10%?

Time/date sampled 8:45 11-7-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 70-03 Date gauged 11-7-12  
 Site Mountain View Time gauged 7:06  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 54.03 Feet Height of fluid column 11.16 Feet  
 Total depth 65.19 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 7 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 7:14 11-7-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
7:33	3	19.6	9820	8.50	159	8199
7:36	4	19.7	10.23	8.27	154	8601
7:39	5	19.5	10.46	7.87	149	8824
7:41	6	19.1	11.68	7.63	155	9952
7:44	7	18.8	11.59	7.53	156	9875

Actual purge volume 7 gal. Field measurements stabilized within ± 10%?

Time/date sampled 7:47 11-7-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID 167-01A Date gauged 11-15-12  
 Site River Valley Time gauged 13:30  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 17.40 Feet Height of fluid column 7.63 Feet  
 Total depth 25.03 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 1.5 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 13:39 11-15-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
<u>13:42</u>	<u>.5</u>	<u>21.2</u>	<u>4941</u>	<u>8.36</u>	<u>176</u>	<u>3836</u>
<u>13:48</u>	<u>1</u>	<u>20.8</u>	<u>5012</u>	<u>7.92</u>	<u>162</u>	<u>3892</u>
<u>13:55</u>	<u>1.5</u>	<u>20.2</u>	<u>5025</u>	<u>7.86</u>	<u>153</u>	<u>3914</u>

Actual purge volume 1.5 gal. Field measurements stabilized within ± 10%?

Time/date sampled 13:59 11-15-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 167-03 Date gauged 11-15-12  
 Site River Valley Time gauged 9:08  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 2350 Feet Height of fluid column 18.44 Feet  
 Total depth 41.94 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 12 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 9:25 11-15-12 Purge Method Redi-flow pump

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
9:31	6	22.1	3575	6.63	316	2672
9:33	7	22.2	3506	7.14	294	2642
9:38	8	22.0	3491	7.15	285	2621
9:40	9	22.2	3485	7.22	279	2609
9:43	10	22.1	3478	7.23	273	2606
9:45	11	22.0	3468	7.25	262	2602
9:51	12	21.8	3487	7.21	254	2610

Actual purge volume 12 gal. Field measurements stabilized within ± 10%?

Time/date sampled 9:56 11-15-12 Purged/sampled by Angel N. Rivera

Sample method Redi-flow pump

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 167-05 Date gauged 11-19-12  
 Site River Valley Time gauged 10:19  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 15.74 Feet Height of fluid column 6.41 Feet  
 Total depth 22.15 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 1.5 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 10:23 11-19-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDs DO (mg/L)
<u>10:29</u>	<u>.5</u>	<u>21.4</u>	<u>5046</u>	<u>8.27</u>	<u>-3</u>	<u>3923</u>
<u>10:33</u>	<u>1</u>	<u>20.7</u>	<u>5036</u>	<u>7.81</u>	<u>-44</u>	<u>3918</u>
<u>10:37</u>	<u>1.5</u>	<u>20.2</u>	<u>4985</u>	<u>7.64</u>	<u>-13</u>	<u>3880</u>

Actual purge volume 1.5 gal. Field measurements stabilized within ± 10%?

Time/date sampled 10:48 11-19-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft



**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID 167-06 Date gauged 11-19-12  
 Site River Valley Time gauged 7:55  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 30.12 Feet Height of fluid column 7.71 Feet  
 Total depth 37.83 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 1.5 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 7:59 11-19-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
<u>8:06</u>	<u>.5</u>	<u>20.8</u>	<u>4866</u>	<u>6.79</u>	<u>269</u>	<u>3776</u>
<u>8:10</u>	<u>1</u>	<u>21.1</u>	<u>4410</u>	<u>7.26</u>	<u>251</u>	<u>3388</u>
<u>8:13</u>	<u>1.5</u>	<u>21.4</u>	<u>4403</u>	<u>7.28</u>	<u>244</u>	<u>3380</u>

Actual purge volume 1.5 gal. Field measurements stabilized within ± 10%?

Time/date sampled 8:17 11-19-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID 167-07 Date gauged 11-15-12  
 Site River Valley Time gauged 12:38  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 16.30 Feet Height of fluid column 13.0 Feet  
 Total depth 29.30 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 2.5 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 12:48 11-15-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
12:55	1	21.5	3766	8.36	3	2847
12:58	1.5	20.8	3419	8.00	-45	2561
13:03	2	20.7	3360	7.89	-54	2520
13:08	2.5	20.4	3370	7.83	-65	2511

Actual purge volume 2.5 gal. Field measurements stabilized within ± 10%? \_\_\_\_\_

Time/date sampled 13:17 11-15-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses low water flow and black water w/ smell would come out.

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 167-08 Date gauged 11-19-12  
Site River Valley Time gauged 11:15  
Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
Depth to water 17.69 Feet Height of fluid column 16.16 Feet  
Total depth 33.85 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 3 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 0 11-19-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DC (mg/L)
	1					
	2					
	3					

Actual purge volume 3 gal. Field measurements stabilized within ± 10%? 0

Time/date sampled 0 11-19-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses Did NOT gauge or sample well is Damaged!!

Comments/observations Took pictures of well.

Well Casing Volumes  
2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

**ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID 167-09 Date gauged 11-19-12  
 Site River Valley Time gauged 8:45  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 15.33 Feet Height of fluid column 4.75 Feet  
 Total depth 20.08 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 1.5 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 9:16 11-19-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
9:19	.5	18.7	5515	8.23	186	4346
9:21	1	19.1	5500	7.84	191	4327
9:23	1.5	19.5	5478	7.63	196	4312

Actual purge volume 1.5 gal. Field measurements stabilized within ± 10%?

Time/date sampled 9:28 11-19-12 Purged/sampled by Angel M. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 257-01 Date gauged 11-21-12  
 Site Sunset Dairy Time gauged 8:17  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 21.04 Feet Height of fluid column 5.03 Feet  
 Total depth 26.07 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 1 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 8:26 11-21-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
8:33	.5	19.1	4642	8.40	9	3602
8:35	1	19.9	4626	8.01	34	3571
8:37	1.5	19.7	4659	7.91	45	3601

Actual purge volume 1.5 gal. Field measurements stabilized within ± 10%?

Time/date sampled 8:39 11-21-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 257-02 Date gauged 11-21-12  
 Site Sunset Dairy Time gauged 7:26  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 15.09 Feet Height of fluid column 5.90 Feet  
 Total depth 20.99 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 1 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 7:48 11-21-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
7:53	.5	20.4	3317	6.50	284	2487
7:55	1	20.2	3087	6.93	259	2302
7:57	1.5	20.6	3189	7.10	239	2383

Actual purge volume 1.5 gal. Field measurements stabilized within ± 10%?

Time/date sampled 7:59 11-21-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 257-03 Date gauged 11-21-12  
 Site Sunset Dairy Time gauged 10:09  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 11.65 Feet Height of fluid column 2.29 Feet  
 Total depth 13.94 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 0.4 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 10:35 11-21-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
10:36	0.1	22.1	3449	8.84	208	2585
10:39	0.2	21.5	3297	8.30	200	2464
10:42	0.3	21.3	3412	8.04	199	2556
10:46	0.4	21.4	3457	7.80	197	2592

Actual purge volume 0.4 gal. Field measurements stabilized within ± 10%?

Time/date sampled 10:53 11-21-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 257/260-01 Date gauged 11-21-12  
 Site Sunset Dairy Time gauged 11:20  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 4 Inches  
 Depth to water 13.40 Feet Height of fluid column 7.01 Feet  
 Total depth 20.41 Feet Volume in well \_\_\_\_\_ Gallons

(3 well volumes = 5 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 11:33 11-21-12 Purge Method Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS
						DO (mg/L)
<u>11:37</u>	<u>1</u>	<u>19.8</u>	<u>3290</u>	<u>8.85</u>	<u>161</u>	<u>2463</u>
<u>11:40</u>	<u>2</u>	<u>19.9</u>	<u>3449</u>	<u>8.28</u>	<u>155</u>	<u>2591</u>
<u>11:43</u>	<u>3</u>	<u>20.0</u>	<u>3845</u>	<u>8.13</u>	<u>119</u>	<u>2718</u>
<u>11:47</u>	<u>4</u>	<u>19.7</u>	<u>4016</u>	<u>7.78</u>	<u>52</u>	<u>3061</u>
<u>11:51</u>	<u>5</u>	<u>19.5</u>	<u>4424</u>	<u>7.67</u>	<u>19</u>	<u>3405</u>

Actual purge volume 5 gal. Field measurements stabilized within ± 10%?

Time/date sampled 11:54 11-21-12 Purged/sampled by Angel N. Rivera

Sample method Bailer

Requested analyses \_\_\_\_\_

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft, 4" diameter = 0.66 gal/ft, 5" diameter = 1.02 gal/ft, 6" diameter = 1.50 gal/ft



**APPENDIX B**  
**ANALYTICAL LABORATORY REPORTS**  
**(Electronic Format – CD)**



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 915-585-3443 FAX 915-585-4944  
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 (BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Tim Hyde  
 Bright Star Dairy  
 13520 Stern Dr.  
 P.O. Box 167  
 Mesquite, NM, 88048

Report Date: November 21, 2012

Work Order: 12110524



DP: 70/86/340  
 Project Location: 13520 Stern Dr, Mesquite, NM  
 Project Name: Bright Star Dairy

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
313486	340-1	water	2012-11-05	14:07	2012-11-05
313487	340-2	water	2012-11-05	14:34	2012-11-05
313488	70/86/340	water	2012-11-05	13:33	2012-11-05
313489	86/340	water	2012-11-05	12:35	2012-11-05
313490	340 Lagoon	water	2012-11-05	14:55	2012-11-05

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 21 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

**Notes:**

*For inorganic analyses, the term MQL should actually read PQL.*

*Blair Leftwich*

---

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

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## Case Narrative

Samples for project Bright Star Dairy were received by TraceAnalysis, Inc. on 2012-11-05 and assigned to work order 12110524. Samples for work order 12110524 were received intact at a temperature of 3.0 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	82040	2012-11-06 at 14:17	96779	2012-11-06 at 14:17
Chloride (IC)	E 300.0	82041	2012-11-06 at 18:29	96780	2012-11-06 at 18:29
NO3 (IC)	E 300.0	82040	2012-11-06 at 14:17	96779	2012-11-06 at 14:17
NO3 (IC)	E 300.0	82041	2012-11-06 at 18:29	96780	2012-11-06 at 18:29
TDS	SM 2540C	81733	2012-11-06 at 09:00	96445	2012-11-06 at 09:00
TKN	E 351.3	81708	2012-11-07 at 12:22	96416	2012-11-07 at 04:00

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 12110524 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: 313486 - 340-1**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96779 Date Analyzed: 2012-11-06 Analyzed By: JR  
 Prep Batch: 82040 Sample Preparation: 2012-11-06 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>855</b>	<b>855</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 313486 - 340-1**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96779 Date Analyzed: 2012-11-06 Analyzed By: JR  
 Prep Batch: 82040 Sample Preparation: 2012-11-06 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>23.8</b>	<b>23.8</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 313486 - 340-1**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96445 Date Analyzed: 2012-11-06 Analyzed By: DL  
 Prep Batch: 81733 Sample Preparation: 2012-11-06 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3180</b>	<b>3180</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 313486 - 340-1**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96416 Date Analyzed: 2012-11-07 Analyzed By: AK  
 Prep Batch: 81708 Sample Preparation: 2012-11-07 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 313487 - 340-2**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96779 Date Analyzed: 2012-11-06 Analyzed By: JR  
 Prep Batch: 82040 Sample Preparation: 2012-11-06 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>923</b>	<b>923</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 313487 - 340-2**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96779 Date Analyzed: 2012-11-06 Analyzed By: JR  
 Prep Batch: 82040 Sample Preparation: 2012-11-06 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>73.8</b>	<b>73.8</b>	<0.0580	mg/L	10	0.0580	0.5	0.0058

**Sample: 313487 - 340-2**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96445 Date Analyzed: 2012-11-06 Analyzed By: DL  
 Prep Batch: 81733 Sample Preparation: 2012-11-06 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3220</b>	<b>3220</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 313487 - 340-2**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96416 Date Analyzed: 2012-11-07 Analyzed By: AK  
 Prep Batch: 81708 Sample Preparation: 2012-11-07 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	J	2	<b>4.90</b>	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 313488 - 70/86/340**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96779 Date Analyzed: 2012-11-06 Analyzed By: JR  
 Prep Batch: 82040 Sample Preparation: 2012-11-06 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>2120</b>	<b>2120</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 313488 - 70/86/340**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96779 Date Analyzed: 2012-11-06 Analyzed By: JR  
 Prep Batch: 82040 Sample Preparation: 2012-11-06 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>12.7</b>	<b>12.7</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 313488 - 70/86/340**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96445 Date Analyzed: 2012-11-06 Analyzed By: DL  
 Prep Batch: 81733 Sample Preparation: 2012-11-06 Prepared By: DL

*continued . . .*



*sample 313488 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>4940</b>	<b>4940</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 313488 - 70/86/340**

Laboratory: Lubbock

Analysis: TKN

QC Batch: 96416

Prep Batch: 81708

Analytical Method: E 351.3

Date Analyzed: 2012-11-07

Sample Preparation: 2012-11-07

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 313489 - 86/340**

Laboratory: El Paso

Analysis: Chloride (IC)

QC Batch: 96780

Prep Batch: 82041

Analytical Method: E 300.0

Date Analyzed: 2012-11-06

Sample Preparation: 2012-11-06

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride	Qr, Qs	1	<b>638</b>	<b>638</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 313489 - 86/340**

Laboratory: El Paso

Analysis: NO3 (IC)

QC Batch: 96780

Prep Batch: 82041

Analytical Method: E 300.0

Date Analyzed: 2012-11-06

Sample Preparation: 2012-11-06

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	Qs	1	<b>12.1</b>	<b>12.1</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 313489 - 86/340**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96445 Date Analyzed: 2012-11-06 Analyzed By: DL  
 Prep Batch: 81733 Sample Preparation: 2012-11-06 Prepared By: DL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>2860</b>	<b>2860</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 313489 - 86/340**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96416 Date Analyzed: 2012-11-07 Analyzed By: AK  
 Prep Batch: 81708 Sample Preparation: 2012-11-07 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 313490 - 340 Lagoon**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96780 Date Analyzed: 2012-11-06 Analyzed By: JR  
 Prep Batch: 82041 Sample Preparation: 2012-11-06 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride	Qr, Qs	1	<b>3430</b>	<b>3430</b>	<20.9	mg/L	100	20.9	2.5	0.209

**Sample: 313490 - 340 Lagoon**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96780 Date Analyzed: 2012-11-06 Analyzed By: JR  
 Prep Batch: 82041 Sample Preparation: 2012-11-06 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N	J, Qs	1	<b>2.71</b>	<5.00	<0.0580	mg/L	10	0.0580	0.5	0.0058

**Sample: 313490 - 340 Lagoon**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96445 Date Analyzed: 2012-11-06 Analyzed By: DL  
 Prep Batch: 81733 Sample Preparation: 2012-11-06 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>5060</b>	<b>5060</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 313490 - 340 Lagoon**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96416 Date Analyzed: 2012-11-07 Analyzed By: AK  
 Prep Batch: 81708 Sample Preparation: 2012-11-07 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N		2	<b>222</b>	<b>222</b>	<1.72	mg/L	1	1.72	10	1.72

## Method Blanks

### Method Blank (1)

QC Batch: 96416  
Prep Batch: 81708Date Analyzed: 2012-11-07  
QC Preparation: 2012-11-07Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.72	mg/L	1.72

### Method Blank (1)

QC Batch: 96445  
Prep Batch: 81733Date Analyzed: 2012-11-06  
QC Preparation: 2012-11-06Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 96779  
Prep Batch: 82040Date Analyzed: 2012-11-06  
QC Preparation: 2012-11-06Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

### Method Blank (1)

QC Batch: 96779  
Prep Batch: 82040Date Analyzed: 2012-11-06  
QC Preparation: 2012-11-06Analyzed By: JR  
Prepared By: JR



# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 96445  
Prep Batch: 81733Date Analyzed: 2012-11-06  
QC Preparation: 2012-11-06Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	997	mg/L	1	1000	<5.00	100	90 - 110

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	996	mg/L	1	1000	<5.00	100	90 - 110	0	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: 96779  
Prep Batch: 82040Date Analyzed: 2012-11-06  
QC Preparation: 2012-11-06Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	23.6	mg/L	1	25.0	<0.209	94	90 - 110

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	23.5	mg/L	1	25.0	<0.209	94	90 - 110	0	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: 96779  
Prep Batch: 82040Date Analyzed: 2012-11-06  
QC Preparation: 2012-11-06Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	4.68	mg/L	1	5.00	<0.00580	94	90 - 110

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



Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	265	mg/L	1	50.0	222	86	10 - 151

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
Total Kjeldahl Nitrogen - N		2	263	mg/L	1	50.0	222	82	10 - 151	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: 313487

QC Batch: 96779 Date Analyzed: 2012-11-06 Analyzed By: JR  
Prep Batch: 82040 QC Preparation: 2012-11-06 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	2380	mg/L	55.6	1390	923	105	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	2400	mg/L	55.6	1390	923	106	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: 313487

QC Batch: 96779 Date Analyzed: 2012-11-06 Analyzed By: JR  
Prep Batch: 82040 QC Preparation: 2012-11-06 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	358	mg/L	55.6	278	73.8	102	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
Nitrate-N		1	357	mg/L	55.6	278	73.8	102	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: 313489

QC Batch: 96780 Date Analyzed: 2012-11-06 Analyzed By: JR  
 Prep Batch: 82041 QC Preparation: 2012-11-06 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	2060	mg/L	55.6	1390	638	102	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	Qr, Qs	1	1310	mg/L	55.6	1390	638	48	90 - 110	44	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: 313489

QC Batch: 96780 Date Analyzed: 2012-11-06 Analyzed By: JR  
 Prep Batch: 82041 QC Preparation: 2012-11-06 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	277	mg/L	55.6	278	12.1	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
Nitrate-N	Qs	1	260	mg/L	55.6	278	12.1	89	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 (ICV-1)

QC Batch: 96416

Date Analyzed: 2012-11-07

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.48	90	85 - 115	2012-11-07

### Standard (CCV-1)

QC Batch: 96416

Date Analyzed: 2012-11-07

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.90	98	85 - 115	2012-11-07

### Standard (CCV-1)

QC Batch: 96779

Date Analyzed: 2012-11-06

Analyzed By: JR

Param	F	C	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	2012-11-06

### Standard (CCV-1)

QC Batch: 96779

Date Analyzed: 2012-11-06

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.54	91	90 - 110	2012-11-06

**Standard (CCV-2)**

QC Batch: 96779 Date Analyzed: 2012-11-06 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.7	95	90 - 110	2012-11-06

**Standard (CCV-2)**

QC Batch: 96779 Date Analyzed: 2012-11-06 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.71	94	90 - 110	2012-11-06

**Standard (CCV-1)**

QC Batch: 96780 Date Analyzed: 2012-11-06 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.7	95	90 - 110	2012-11-06

**Standard (CCV-1)**

QC Batch: 96780 Date Analyzed: 2012-11-06 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.71	94	90 - 110	2012-11-06

**Standard (CCV-2)**

QC Batch: 96780 Date Analyzed: 2012-11-06 Analyzed By: JR

Report Date: November 21, 2012

Work Order: 12110524  
Bright Star Dairy

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13520 Stern Dr, Mesquite, NM

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Param	F	C	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	2012-11-06

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**Standard (CCV-2)**

QC Batch: 96780

Date Analyzed: 2012-11-06

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.64	93	90 - 110	2012-11-06

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## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.00	-
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.00	-
TKN	E 351.3	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

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# 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	T104704221-12-3	El Paso
2	NELAP	T104704219-12-8	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 than 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.





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## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

John DeRuyter  
 Mountain View Dairy  
 13090 Stern Drive  
 P.O. Box 345  
 Mesquite, NM, 88048

Report Date: November 26, 2012

Work Order: 12110729



DP: 70  
 Project Location: 13090 Stern Dr., Mesquite, NM  
 Project Name: Mountain View Dairy

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
313676	70-01	water	2012-11-07	09:39	2012-11-07
313677	70-02	water	2012-11-07	08:45	2012-11-07
313678	70-03	water	2012-11-07	07:47	2012-11-07
313679	70 Lagoon	water	2012-11-07	08:58	2012-11-07

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 20 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

**Notes:**

*For inorganic analyses, the term MQL should actually read PQL.*



*Michael Abel*

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

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## Case Narrative

Samples for project Mountain View Dairy were received by TraceAnalysis, Inc. on 2012-11-07 and assigned to work order 12110729. Samples for work order 12110729 were received intact at a temperature of 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	82042	2012-11-08 at 21:02	96781	2012-11-08 at 21:02
Chloride (IC)	E 300.0	82043	2012-11-08 at 16:49	96782	2012-11-08 at 16:49
NO3 (IC)	E 300.0	82042	2012-11-08 at 21:02	96781	2012-11-08 at 21:02
NO3 (IC)	E 300.0	82043	2012-11-08 at 16:49	96782	2012-11-08 at 16:49
TDS	SM 2540C	81768	2012-11-08 at 08:00	96489	2012-11-08 at 08:00
TKN	E 351.3	81780	2012-11-12 at 10:00	96505	2012-11-12 at 15:10

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 12110729 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: 313676 - 70-01**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96782 Date Analyzed: 2012-11-08 Analyzed By: JR  
 Prep Batch: 82043 Sample Preparation: 2012-11-08 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>636</b>	<b>636</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 313676 - 70-01**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96782 Date Analyzed: 2012-11-08 Analyzed By: JR  
 Prep Batch: 82043 Sample Preparation: 2012-11-08 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>21.2</b>	<b>21.2</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 313676 - 70-01**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96489 Date Analyzed: 2012-11-08 Analyzed By: DL  
 Prep Batch: 81768 Sample Preparation: 2012-11-08 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>2700</b>	<b>2700</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 313676 - 70-01**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96505 Date Analyzed: 2012-11-12 Analyzed By: AK  
 Prep Batch: 81780 Sample Preparation: 2012-11-12 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 313677 - 70-02**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96782 Date Analyzed: 2012-11-08 Analyzed By: JR  
 Prep Batch: 82043 Sample Preparation: 2012-11-08 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>820</b>	<b>820</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 313677 - 70-02**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96782 Date Analyzed: 2012-11-08 Analyzed By: JR  
 Prep Batch: 82043 Sample Preparation: 2012-11-08 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>36.2</b>	<b>36.2</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 313677 - 70-02**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96489 Date Analyzed: 2012-11-08 Analyzed By: DL  
 Prep Batch: 81768 Sample Preparation: 2012-11-08 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3300</b>	<b>3300</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 313677 - 70-02**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96505 Date Analyzed: 2012-11-12 Analyzed By: AK  
 Prep Batch: 81780 Sample Preparation: 2012-11-12 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 313678 - 70-03**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96782 Date Analyzed: 2012-11-08 Analyzed By: JR  
 Prep Batch: 82043 Sample Preparation: 2012-11-08 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>2850</b>	<b>2850</b>	<20.9	mg/L	100	20.9	2.5	0.209

**Sample: 313678 - 70-03**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96782 Date Analyzed: 2012-11-08 Analyzed By: JR  
 Prep Batch: 82043 Sample Preparation: 2012-11-08 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>49.5</b>	<b>49.5</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 313678 - 70-03**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96489 Date Analyzed: 2012-11-08 Analyzed By: DL  
 Prep Batch: 81768 Sample Preparation: 2012-11-08 Prepared By: DL

*continued . . .*

*sample 313678 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>7950</b>	<b>7950</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 313678 - 70-03**

Laboratory: Lubbock

Analysis: TKN

QC Batch: 96505

Prep Batch: 81780

Analytical Method: E 351.3

Date Analyzed: 2012-11-12

Sample Preparation: 2012-11-12

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 313679 - 70 Lagoon**

Laboratory: El Paso

Analysis: Chloride (IC)

QC Batch: 96781

Prep Batch: 82042

Analytical Method: E 300.0

Date Analyzed: 2012-11-08

Sample Preparation: 2012-11-08

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>1800</b>	<b>1800</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 313679 - 70 Lagoon**

Laboratory: El Paso

Analysis: NO3 (IC)

QC Batch: 96781

Prep Batch: 82042

Analytical Method: E 300.0

Date Analyzed: 2012-11-08

Sample Preparation: 2012-11-08

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	u	1	<0.0580	<5.00	<0.0580	mg/L	10	0.0580	0.5	0.0058

**Sample: 313679 - 70 Lagoon**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96489 Date Analyzed: 2012-11-08 Analyzed By: DL  
 Prep Batch: 81768 Sample Preparation: 2012-11-08 Prepared By: DL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>8360</b>	<b>8360</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 313679 - 70 Lagoon**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96505 Date Analyzed: 2012-11-12 Analyzed By: AK  
 Prep Batch: 81780 Sample Preparation: 2012-11-12 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N		2	<b>462</b>	<b>462</b>	<6.88	mg/L	4	6.88	10	1.72



## Method Blanks

### Method Blank (1)

QC Batch: 96489  
Prep Batch: 81768Date Analyzed: 2012-11-08  
QC Preparation: 2012-11-08Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 96505  
Prep Batch: 81780Date Analyzed: 2012-11-12  
QC Preparation: 2012-11-12Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.72	mg/L	1.72

### Method Blank (1)

QC Batch: 96781  
Prep Batch: 82042Date Analyzed: 2012-11-08  
QC Preparation: 2012-11-08Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

### Method Blank (1)

QC Batch: 96781  
Prep Batch: 82042Date Analyzed: 2012-11-08  
QC Preparation: 2012-11-08Analyzed By: JR  
Prepared By: JR



# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 96489  
Prep Batch: 81768Date Analyzed: 2012-11-08  
QC Preparation: 2012-11-08Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	988	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	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	987	mg/L	1	1000	<5.00	99	90 - 110	0	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: 96781  
Prep Batch: 82042Date Analyzed: 2012-11-08  
QC Preparation: 2012-11-08Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	23.6	mg/L	1	25.0	<0.209	94	90 - 110

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	23.8	mg/L	1	25.0	<0.209	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: 96781  
Prep Batch: 82042Date Analyzed: 2012-11-08  
QC Preparation: 2012-11-08Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	4.68	mg/L	1	5.00	<0.00580	94	90 - 110

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



Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	42.7	mg/L	1	50.0	<1.72	85	10 - 151

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. Limit	RPD	RPD Limit	
Total Kjeldahl Nitrogen - N		2	45.5	mg/L	1	50.0	<1.72	91	10 - 151	6	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: 313680

QC Batch: 96781 Date Analyzed: 2012-11-08 Analyzed By: JR  
Prep Batch: 82042 QC Preparation: 2012-11-08 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	1960	mg/L	55.6	1390	572	100	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. Limit	RPD	RPD Limit	
Chloride		1	1950	mg/L	55.6	1390	572	99	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: 313680

QC Batch: 96781 Date Analyzed: 2012-11-08 Analyzed By: JR  
Prep Batch: 82042 QC Preparation: 2012-11-08 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	274	mg/L	55.6	278	16	93	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. Limit	RPD	RPD Limit	
Nitrate-N		1	274	mg/L	55.6	278	16	93	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: 313676

QC Batch: 96782  
Prep Batch: 82043

Date Analyzed: 2012-11-08  
QC Preparation: 2012-11-08

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	2080	mg/L	55.6	1390	636	104	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	2070	mg/L	55.6	1390	636	103	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: 313676

QC Batch: 96782  
Prep Batch: 82043

Date Analyzed: 2012-11-08  
QC Preparation: 2012-11-08

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	287	mg/L	55.6	278	21.2	96	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
Nitrate-N		1	286	mg/L	55.6	278	21.2	95	90 - 110	0	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: 96505

Date Analyzed: 2012-11-12

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.90	98	85 - 115	2012-11-12

### Standard (CCV-1)

QC Batch: 96505

Date Analyzed: 2012-11-12

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	5.32	106	85 - 115	2012-11-12

### Standard (CCV-1)

QC Batch: 96781

Date Analyzed: 2012-11-08

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.8	95	90 - 110	2012-11-08

### Standard (CCV-1)

QC Batch: 96781

Date Analyzed: 2012-11-08

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.72	94	90 - 110	2012-11-08

**Standard (CCV-2)**

QC Batch: 96781

Date Analyzed: 2012-11-08

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.7	95	90 - 110	2012-11-08

**Standard (CCV-2)**

QC Batch: 96781

Date Analyzed: 2012-11-08

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.70	94	90 - 110	2012-11-08

**Standard (CCV-1)**

QC Batch: 96782

Date Analyzed: 2012-11-08

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.1	96	90 - 110	2012-11-08

**Standard (CCV-1)**

QC Batch: 96782

Date Analyzed: 2012-11-08

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.76	95	90 - 110	2012-11-08

**Standard (CCV-2)**

QC Batch: 96782

Date Analyzed: 2012-11-08

Analyzed By: JR



Report Date: November 26, 2012

Work Order: 12110729  
Mountain View Dairy

Page Number: 18 of 20  
13090 Stern Dr., Mesquite, NM

---

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.8	95	90 - 110	2012-11-08

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**Standard (CCV-2)**

QC Batch: 96782

Date Analyzed: 2012-11-08

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.72	94	90 - 110	2012-11-08

---

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## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.00	-
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.00	-
TKN	E 351.3	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

---

# 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	T104704221-12-3	El Paso
2	NELAP	T104704219-12-8	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 than 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.

6701 Aberdeen, Ste. 9  
Lubbock, TX 79424  
Tel (806) 794-1296  
Fax (806) 794-1298

# TraceAnalysis, Inc.

155 McCutcheon, Ste. H El  
Paso, TX 79932  
Tel (915) 585-3443  
Fax (915) 585-4944

Page 1 of 1  
CHAIN-OF-CUSTODY AND ANALYSIS REQUEST  
LAB Order ID # 12110729

Company Name:  
D&H Petroleum & Environmental Services  
Address: (Street, City, Zip)  
1221 Tower Trail Ln., El Paso, Texas 79907  
Contact Person:  
Victor Ayala

Phone #: 915-859-8150  
Cell #:  
Fax #:  
E-mail: [vayala@dhpump.com](mailto:vayala@dhpump.com)

Invoice to (if different from above):  
Mountain View Dairy, P.O. Box 345, Mesquite, NM 88048  
Project #: 401373  
Project Name:  
Mountain View Dairy

Sampler Signature: *Angel N. Pinera*  
Project Location (including state):  
Mountain View Dairy, 13090 Stern Drive, Mesquite, NM

LAB #	Field Code	# Containers	Volume/Amount	MATRIX			PRESERVATIVE METHOD					Sampling		
				WATER	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE	TIME
3136761	70-01	1	250ml	X			X			X			11-7-12	9:39
76-2	70-01	1	250ml	X			X			X			11-7-12	9:39
77-1	70-02	1	250ml	X			X			X			11-7-12	8:45
77-2	70-02	1	250ml	X			X			X			11-7-12	8:45
78-1	70-03	1	250ml	X			X			X			11-7-12	7:47
78-2	70-03	1	250ml	X			X			X			11-7-12	7:47
79-1	70 Lagoon	1	250ml	X			X			X			11-7-12	8:58
79-2	70 Lagoon	1	250ml	X			X			X			11-7-12	8:58

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Angel N. Pinera	11-7-12	15:21	Danny d Han	11-7-12	15:21
Danny d Han	11-8-12	16:30	Shanda Ward	11/9/12	9:15

Lab Use Only  
Intact  / N  
Headspace  / N  
Temp 18.1 / 5/5  
Log-in Review  / N

Remarks: ICE 8 sample containers  
85 4854264 4.3 (carry in)  
Dry Weight Basis Required  
TRRP Report Required

Turn Around Time  
Hold

ANALYSIS REQUEST

Method	Result
TX 1005 Extended (C35)	
TPH 418.1 / TX1005	
PAH 8270C	
PAH 8270 (Low Level Analysis)	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	
Nitrates EPA 300	X
Total Kjeldahl Nitrogen SM 4500 NORG C	X
Chloride EPA 300.0	X
Total Dissolved Solids SM 2540 C MOD	X



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 915-585-3443 FAX 915-585-4944  
5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Linda Armstrong  
Del Norte Dairy, LLC  
12560 Stern Drive  
P. O. Box 10  
Mesquite, NM, 88048

Report Date: November 26, 2012

Work Order: 12110730



DP: 126  
Project Location: Del Norte Dairy, 12560 Stern Dr., Mesquite, NM  
Project Name: Daybreak Dairy

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
313680	126-4	water	2012-11-07	11:51	2012-11-07
313681	126-5	water	2012-11-07	12:53	2012-11-07
313682	126-7	water	2012-11-07	13:54	2012-11-07
313683	126-9	water	2012-11-07	14:40	2012-11-07
313684	126-12	water	2012-11-07	13:33	2012-11-07
313685	126-13	water	2012-11-07	11:51	2012-11-07
313686	126 Lagoon	water	2012-11-07	14:07	2012-11-07

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 29 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

### Notes:

*For inorganic analyses, the term MQL should actually read PQL.*

*Michael Abel*

---

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

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Sample 313684 (126-12) . . . . .	10
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## Case Narrative

Samples for project Daybreak Dairy were received by TraceAnalysis, Inc. on 2012-11-07 and assigned to work order 12110730. Samples for work order 12110730 were received intact at a temperature of 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	82042	2012-11-08 at 21:02	96781	2012-11-08 at 21:02
Chloride (IC)	E 300.0	82044	2012-11-09 at 01:14	96783	2012-11-09 at 01:14
Chloride (IC)	E 300.0	82045	2012-11-09 at 05:11	96784	2012-11-09 at 05:11
NO3 (IC)	E 300.0	82042	2012-11-08 at 21:02	96781	2012-11-08 at 21:02
NO3 (IC)	E 300.0	82044	2012-11-09 at 01:14	96783	2012-11-09 at 01:14
NO3 (IC)	E 300.0	82045	2012-11-09 at 05:11	96784	2012-11-09 at 05:11
TDS	SM 2540C	81768	2012-11-08 at 08:00	96489	2012-11-08 at 08:00
TKN	E 351.3	81780	2012-11-12 at 10:00	96505	2012-11-12 at 15:10
TKN	E 351.3	81781	2012-11-12 at 10:00	96507	2012-11-12 at 15:15

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 12110730 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: 313680 - 126-4**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96781 Date Analyzed: 2012-11-08 Analyzed By: JR  
 Prep Batch: 82042 Sample Preparation: 2012-11-08 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>572</b>	<b>572</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 313680 - 126-4**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96781 Date Analyzed: 2012-11-08 Analyzed By: JR  
 Prep Batch: 82042 Sample Preparation: 2012-11-08 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>16.0</b>	<b>16.0</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 313680 - 126-4**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96489 Date Analyzed: 2012-11-08 Analyzed By: DL  
 Prep Batch: 81768 Sample Preparation: 2012-11-08 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>2500</b>	<b>2500</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 313680 - 126-4**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96505 Date Analyzed: 2012-11-12 Analyzed By: AK  
 Prep Batch: 81780 Sample Preparation: 2012-11-12 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	J	2	<b>3.50</b>	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 313681 - 126-5**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96781 Date Analyzed: 2012-11-08 Analyzed By: JR  
 Prep Batch: 82042 Sample Preparation: 2012-11-08 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>548</b>	<b>548</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 313681 - 126-5**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96781 Date Analyzed: 2012-11-08 Analyzed By: JR  
 Prep Batch: 82042 Sample Preparation: 2012-11-08 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>29.2</b>	<b>29.2</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 313681 - 126-5**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96489 Date Analyzed: 2012-11-08 Analyzed By: DL  
 Prep Batch: 81768 Sample Preparation: 2012-11-08 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>2890</b>	<b>2890</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 313681 - 126-5**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96505 Date Analyzed: 2012-11-12 Analyzed By: AK  
 Prep Batch: 81780 Sample Preparation: 2012-11-12 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 313682 - 126-7**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96783 Date Analyzed: 2012-11-09 Analyzed By: JR  
 Prep Batch: 82044 Sample Preparation: 2012-11-09 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>629</b>	<b>629</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 313682 - 126-7**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96783 Date Analyzed: 2012-11-09 Analyzed By: JR  
 Prep Batch: 82044 Sample Preparation: 2012-11-09 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>19.8</b>	<b>19.8</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 313682 - 126-7**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96489 Date Analyzed: 2012-11-08 Analyzed By: DL  
 Prep Batch: 81768 Sample Preparation: 2012-11-08 Prepared By: DL

*continued . . .*

*sample 313682 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>2870</b>	<b>2870</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 313682 - 126-7**

Laboratory: Lubbock

Analysis: TKN

QC Batch: 96505

Prep Batch: 81780

Analytical Method: E 351.3

Date Analyzed: 2012-11-12

Sample Preparation: 2012-11-12

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 313683 - 126-9**

Laboratory: El Paso

Analysis: Chloride (IC)

QC Batch: 96783

Prep Batch: 82044

Analytical Method: E 300.0

Date Analyzed: 2012-11-09

Sample Preparation: 2012-11-09

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>984</b>	<b>984</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 313683 - 126-9**

Laboratory: El Paso

Analysis: NO3 (IC)

QC Batch: 96783

Prep Batch: 82044

Analytical Method: E 300.0

Date Analyzed: 2012-11-09

Sample Preparation: 2012-11-09

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>2.53</b>	<b>2.53</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 313683 - 126-9**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96489 Date Analyzed: 2012-11-08 Analyzed By: DL  
 Prep Batch: 81768 Sample Preparation: 2012-11-08 Prepared By: DL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>2980</b>	<b>2980</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 313683 - 126-9**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96505 Date Analyzed: 2012-11-12 Analyzed By: AK  
 Prep Batch: 81780 Sample Preparation: 2012-11-12 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 313684 - 126-12**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96783 Date Analyzed: 2012-11-09 Analyzed By: JR  
 Prep Batch: 82044 Sample Preparation: 2012-11-09 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>407</b>	<b>407</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 313684 - 126-12**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96783 Date Analyzed: 2012-11-09 Analyzed By: JR  
 Prep Batch: 82044 Sample Preparation: 2012-11-09 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	19.2	19.2	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 313684 - 126-12**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96489 Date Analyzed: 2012-11-08 Analyzed By: DL  
 Prep Batch: 81768 Sample Preparation: 2012-11-08 Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	2490	2490	<5.00	mg/L	1	5.00	5	5

**Sample: 313684 - 126-12**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96505 Date Analyzed: 2012-11-12 Analyzed By: AK  
 Prep Batch: 81780 Sample Preparation: 2012-11-12 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 313685 - 126-13**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96784 Date Analyzed: 2012-11-09 Analyzed By: JR  
 Prep Batch: 82045 Sample Preparation: 2012-11-09 Prepared By: JR

*continued ...*

*sample 313685 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>751</b>	<b>751</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 313685 - 126-13**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96784 Date Analyzed: 2012-11-09 Analyzed By: JR  
 Prep Batch: 82045 Sample Preparation: 2012-11-09 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>23.8</b>	<b>23.8</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 313685 - 126-13**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96489 Date Analyzed: 2012-11-08 Analyzed By: DL  
 Prep Batch: 81768 Sample Preparation: 2012-11-08 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>3090</b>	<b>3090</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 313685 - 126-13**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96507 Date Analyzed: 2012-11-12 Analyzed By: AK  
 Prep Batch: 81781 Sample Preparation: 2012-11-12 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	J	2	<b>2.10</b>	<10.0	<1.72	mg/L	1	1.72	10	1.72



**Sample: 313686 - 126 Lagoon**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96784 Date Analyzed: 2012-11-09 Analyzed By: JR  
 Prep Batch: 82045 Sample Preparation: 2012-11-09 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	1250	1250	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 313686 - 126 Lagoon**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96784 Date Analyzed: 2012-11-09 Analyzed By: JR  
 Prep Batch: 82045 Sample Preparation: 2012-11-09 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	u	1	<0.0290	<2.50	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 313686 - 126 Lagoon**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96489 Date Analyzed: 2012-11-08 Analyzed By: DL  
 Prep Batch: 81768 Sample Preparation: 2012-11-08 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	5360	5360	<5.00	mg/L	1	5.00	5	5

**Sample: 313686 - 126 Lagoon**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96507 Date Analyzed: 2012-11-12 Analyzed By: AK  
 Prep Batch: 81781 Sample Preparation: 2012-11-12 Prepared By: AK

*continued ...*

*sample 313686 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
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Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N		2	<b>277</b>	<b>277</b>	<1.72	mg/L	1	1.72	10	1.72

## Method Blanks

### Method Blank (1)

QC Batch: 96489  
Prep Batch: 81768Date Analyzed: 2012-11-08  
QC Preparation: 2012-11-08Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 96505  
Prep Batch: 81780Date Analyzed: 2012-11-12  
QC Preparation: 2012-11-12Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.72	mg/L	1.72

### Method Blank (1)

QC Batch: 96507  
Prep Batch: 81781Date Analyzed: 2012-11-12  
QC Preparation: 2012-11-12Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.72	mg/L	1.72

### Method Blank (1)

QC Batch: 96781  
Prep Batch: 82042Date Analyzed: 2012-11-08  
QC Preparation: 2012-11-08Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

---

**Method Blank (1)**QC Batch: 96781  
Prep Batch: 82042Date Analyzed: 2012-11-08  
QC Preparation: 2012-11-08Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

---

**Method Blank (1)**QC Batch: 96783  
Prep Batch: 82044Date Analyzed: 2012-11-09  
QC Preparation: 2012-11-09Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

---

**Method Blank (1)**QC Batch: 96783  
Prep Batch: 82044Date Analyzed: 2012-11-09  
QC Preparation: 2012-11-09Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

---

**Method Blank (1)**QC Batch: 96784  
Prep Batch: 82045Date Analyzed: 2012-11-09  
QC Preparation: 2012-11-09Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

**Method Blank (1)**

QC Batch: 96784  
Prep Batch: 82045

Date Analyzed: 2012-11-09  
QC Preparation: 2012-11-09

Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

**Duplicate (2)** Duplicated Sample: 313684

QC Batch: 96489  
Prep Batch: 81768

Date Analyzed: 2012-11-08  
QC Preparation: 2012-11-08

Analyzed By: DL  
Prepared By: DL

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	2480	7950	mg/L	1	0	10
Total Dissolved Solids		1	2480	2490	mg/L	1	0	10

# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 96489  
Prep Batch: 81768Date Analyzed: 2012-11-08  
QC Preparation: 2012-11-08Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS			Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units	Dil.				
Total Dissolved Solids		1	988	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	LCS			Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units	Dil.						
Total Dissolved Solids		1	987	mg/L	1	1000	<5.00	99	90 - 110	0	10

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

## Laboratory Control Spike (LCS-2)

QC Batch: 96489  
Prep Batch: 81768Date Analyzed: 2012-11-08  
QC Preparation: 2012-11-08Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS			Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units	Dil.				
Total Dissolved Solids		1	988	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	LCS			Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units	Dil.						
Total Dissolved Solids		1	991	mg/L	1	1000	<5.00	99	90 - 110	0	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: 96781  
Prep Batch: 82042Date Analyzed: 2012-11-08  
QC Preparation: 2012-11-08Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS			Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units	Dil.				
Chloride		1	23.6	mg/L	1	25.0	<0.209	94	90 - 110

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

Param	F	C	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	23.8	mg/L	1	25.0	<0.209	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: 96781  
Prep Batch: 82042

Date Analyzed: 2012-11-08  
QC Preparation: 2012-11-08

Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	4.68	mg/L	1	5.00	<0.00580	94	90 - 110

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

Param	F	C	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	4.71	mg/L	1	5.00	<0.00580	94	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: 96783  
Prep Batch: 82044

Date Analyzed: 2012-11-09  
QC Preparation: 2012-11-09

Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	23.5	mg/L	1	25.0	<0.209	94	90 - 110

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

Param	F	C	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	23.5	mg/L	1	25.0	<0.209	94	90 - 110	0	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: 96783  
Prep Batch: 82044

Date Analyzed: 2012-11-09  
QC Preparation: 2012-11-09

Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	4.65	mg/L	1	5.00	<0.00580	93	90 - 110

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

Param	F	C	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	4.66	mg/L	1	5.00	<0.00580	93	90 - 110	0	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: 96784  
Prep Batch: 82045

Date Analyzed: 2012-11-09  
QC Preparation: 2012-11-09

Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	23.5	mg/L	1	25.0	<0.209	94	90 - 110

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

Param	F	C	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	23.4	mg/L	1	25.0	<0.209	94	90 - 110	0	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: 96784  
Prep Batch: 82045

Date Analyzed: 2012-11-09  
QC Preparation: 2012-11-09

Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	4.65	mg/L	1	5.00	<0.00580	93	90 - 110

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

Param	F	C	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	4.65	mg/L	1	5.00	<0.00580	93	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: 313684QC Batch: 96505  
Prep Batch: 81780Date Analyzed: 2012-11-12  
QC Preparation: 2012-11-12Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	42.7	mg/L	1	50.0	<1.72	85	10 - 151

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
Total Kjeldahl Nitrogen - N		2	45.5	mg/L	1	50.0	<1.72	91	10 - 151	6	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: 313685QC Batch: 96507  
Prep Batch: 81781Date Analyzed: 2012-11-12  
QC Preparation: 2012-11-12Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	42.0	mg/L	1	50.0	2.1	80	10 - 151

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
Total Kjeldahl Nitrogen - N		2	42.7	mg/L	1	50.0	2.1	81	10 - 151	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: 313680QC Batch: 96781  
Prep Batch: 82042Date Analyzed: 2012-11-08  
QC Preparation: 2012-11-08Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	1960	mg/L	55.6	1390	572	100	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	1950	mg/L	55.6	1390	572	99	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: 313680

QC Batch: 96781  
Prep Batch: 82042

Date Analyzed: 2012-11-08  
QC Preparation: 2012-11-08

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	274	mg/L	55.6	278	16	93	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
Nitrate-N		1	274	mg/L	55.6	278	16	93	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: 313684

QC Batch: 96783  
Prep Batch: 82044

Date Analyzed: 2012-11-09  
QC Preparation: 2012-11-09

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	1760	mg/L	55.6	1390	407	97	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	1770	mg/L	55.6	1390	407	98	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: 313684

QC Batch: 96783  
Prep Batch: 82044

Date Analyzed: 2012-11-09  
QC Preparation: 2012-11-09

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	278	mg/L	55.6	278	19.2	93	90 - 110

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

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	279	mg/L	55.6	278	19.2	93	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: 313685

QC Batch: 96784  
Prep Batch: 82045

Date Analyzed: 2012-11-09  
QC Preparation: 2012-11-09

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
			Result	Units					
Chloride		1	2160	mg/L	55.6	1390	751	101	90 - 110

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

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	2180	mg/L	55.6	1390	751	103	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: 313685

QC Batch: 96784  
Prep Batch: 82045

Date Analyzed: 2012-11-09  
QC Preparation: 2012-11-09

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	283	mg/L	55.6	278	23.8	93	90 - 110

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

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	283	mg/L	55.6	278	23.8	93	90 - 110	0	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: 96505

Date Analyzed: 2012-11-12

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.90	98	85 - 115	2012-11-12

### Standard (CCV-1)

QC Batch: 96505

Date Analyzed: 2012-11-12

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	5.32	106	85 - 115	2012-11-12

### Standard (ICV-1)

QC Batch: 96507

Date Analyzed: 2012-11-12

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.76	95	85 - 115	2012-11-12

### Standard (CCV-1)

QC Batch: 96507

Date Analyzed: 2012-11-12

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	5.18	104	85 - 115	2012-11-12

**Standard (CCV-1)**

QC Batch: 96781

Date Analyzed: 2012-11-08

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.8	95	90 - 110	2012-11-08

**Standard (CCV-1)**

QC Batch: 96781

Date Analyzed: 2012-11-08

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.72	94	90 - 110	2012-11-08

**Standard (CCV-2)**

QC Batch: 96781

Date Analyzed: 2012-11-08

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.7	95	90 - 110	2012-11-08

**Standard (CCV-2)**

QC Batch: 96781

Date Analyzed: 2012-11-08

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.70	94	90 - 110	2012-11-08

**Standard (CCV-1)**

QC Batch: 96783

Date Analyzed: 2012-11-09

Analyzed By: JR





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## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.00	-
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.00	-
TKN	E 351.3	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass



---

# 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	T104704221-12-3	El Paso
2	NELAP	T104704219-12-8	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 than 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.

6701 Aberdeen, Ste. 9  
Lubbock, TX 79424  
Tel (806) 794-1296  
Fax (806) 794-1298

# TraceAnalysis, Inc.

155 McCutcheon, Ste. H El Paso, TX 79932  
Tel (915) 585-3443  
Fax (915) 585-4944

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 1110730

Company Name: D&H Petroleum & Environmental Services  
Address: (Street, City, Zip)  
1221 Tower Trail Ln., El Paso, Texas 79907  
Contact Person: Victor Ayala  
Phone #: 915-859-8150  
Cell #: vayala@dhpump.com  
Fax #:   
E-mail: vayala@dhpump.com

Invoice to (if different from above):

Del Norte Dairy, P.O. Box 10, Mesquite, NM 88048

Project #: 401368  
Project Name: Linda Armstrong 575-233-3620  
Daybreak Dairy

Sampler Signature: April N. Evans

Project Location (including state):  
Del Norte Dairy, 12560 Stern Drive, Mesquite, NM

LAB #	Field Code	# Containers	Volume/Amount	MATRIX			PRESERVATIVE METHOD				SAMPLING		
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE
313680-1	126-4	1	250ml	X				X	X	X	X	11-7-12	11:51
802	126-4	1	250ml	X				X	X	X	X	11-7-12	11:51
81-1	126-5	1	250ml	X				X	X	X	X	11-7-12	12:53
81-2	126-5	1	250ml	X				X	X	X	X	11-7-12	12:53
82-1	126-7	1	250ml	X				X	X	X	X	11-7-12	13:54
82-2	126-7	1	250ml	X				X	X	X	X	11-7-12	13:54
83-1	126-9	1	250ml	X				X	X	X	X	11-7-12	14:40
83-2	126-9	1	250ml	X				X	X	X	X	11-7-12	14:40
84-1	126-12	1	250ml	X				X	X	X	X	11-7-12	13:33
84-2	126-12	1	250ml	X				X	X	X	X	11-7-12	13:33
85-1	126-13	1	250ml	X				X	X	X	X	11-7-12	11:18
85-2	126-13	1	250ml	X				X	X	X	X	11-7-12	11:18
86-1	126 Lagoon	1	250ml	X				X	X	X	X	11-7-12	14:07
86-2	126 Lagoon	1	250ml	X				X	X	X	X	11-7-12	14:07

Relinquished By: April N. Evans Date: 11-7-12 Time: 15:21  
 Relinquished By: Denny & Han Date: 11-8-12 Time: 16:30  
 Received By: Denny & Han Date: 11-7-12 Time: 15:21  
 Received at Laboratory By: Traci Date: 11/9/12 Time: 9:15  
 Lab Use Only  
 Intact Y / N  
 Headspace Y / N  
 Temp 12-1 / 5/5  
 Log-in Review OK

Remarks: 14E 25 48912664 4.3  
14 Sample Containers  
carry in  
 Dry Weight Basis Required  
 TRRP Report Required



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 915-585-3443 FAX 915-585-4944  
 5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
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 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Isaac Dominguez  
 Dominguez Dairy #2  
 13600 Stern Drive  
 P. O. Box 21  
 Mesquite, NM, 88048

Report Date: November 26, 2012

Work Order: 12110926



Project Location: 13600 Stern Drive, Mesquite, NM  
 Project Name: Dominguez Dairy #2  
 Project #: 42

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
313931	42-2	water	2012-11-09	11:11	2012-11-09
313932	42-3	water	2012-11-09	07:43	2012-11-09
313933	42-6	water	2012-11-09	13:34	2012-11-09
313934	42-8	water	2012-11-09	11:58	2012-11-09
313935	42-9	water	2012-11-09	08:45	2012-11-09
313936	42-10	water	2012-11-09	15:15	2012-11-09
313937	42-11	water	2012-11-09	14:18	2012-11-09
313938	42-12	water	2012-11-09	14:48	2012-11-09
313939	42-13	water	2012-11-09	09:49	2012-11-09
313940	42 Lagoon	water	2012-11-09	10:08	2012-11-09

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 33 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

### Notes:

*For inorganic analyses, the term MQL should actually read PQL.*

*Michael Abel*

---

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

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## Case Narrative

Samples for project Dominguez Dairy #2 were received by TraceAnalysis, Inc. on 2012-11-09 and assigned to work order 12110926. Samples for work order 12110926 were received intact at a temperature of 3.0 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	82046	2012-11-09 at 19:44	96785	2012-11-09 at 19:44
Chloride (IC)	E 300.0	82047	2012-11-09 at 23:56	96786	2012-11-09 at 23:56
Chloride (IC)	E 300.0	82048	2012-11-10 at 04:09	96787	2012-11-10 at 04:09
NO3 (IC)	E 300.0	82046	2012-11-09 at 19:44	96785	2012-11-09 at 19:44
NO3 (IC)	E 300.0	82047	2012-11-09 at 23:56	96786	2012-11-09 at 23:56
NO3 (IC)	E 300.0	82048	2012-11-10 at 04:09	96787	2012-11-10 at 04:09
TDS	SM 2540C	81995	2012-11-13 at 09:00	96729	2012-11-13 at 09:00
TKN	E 351.3	81794	2012-11-13 at 08:00	96523	2012-11-13 at 03:00

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 12110926 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: 313931 - 42-2**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96785 Date Analyzed: 2012-11-09 Analyzed By: JR  
 Prep Batch: 82046 Sample Preparation: 2012-11-09 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>412</b>	<b>412</b>	<2.09	mg/L	10	2.09	2.5	0.209

**Sample: 313931 - 42-2**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96785 Date Analyzed: 2012-11-09 Analyzed By: JR  
 Prep Batch: 82046 Sample Preparation: 2012-11-09 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>8.99</b>	<b>8.99</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 313931 - 42-2**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96729<sup>1</sup> Date Analyzed: 2012-11-13 Analyzed By: DL  
 Prep Batch: 81995 Sample Preparation: 2012-11-13 Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>2180</b>	<b>2180</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 313931 - 42-2**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96523 Date Analyzed: 2012-11-13 Analyzed By: AK  
 Prep Batch: 81794 Sample Preparation: 2012-11-13 Prepared By: AK



Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 313932 - 42-3**

Laboratory: El Paso  
 Analysis: Chloride (IC)      Analytical Method: E 300.0      Prep Method: N/A  
 QC Batch: 96785      Date Analyzed: 2012-11-09      Analyzed By: JR  
 Prep Batch: 82046      Sample Preparation: 2012-11-09      Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Chloride		1	<b>1120</b>	<b>1120</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 313932 - 42-3**

Laboratory: El Paso  
 Analysis: NO3 (IC)      Analytical Method: E 300.0      Prep Method: N/A  
 QC Batch: 96785      Date Analyzed: 2012-11-09      Analyzed By: JR  
 Prep Batch: 82046      Sample Preparation: 2012-11-09      Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>56.2</b>	<b>56.2</b>	<0.0580	mg/L	10	0.0580	0.5	0.0058

**Sample: 313932 - 42-3**

Laboratory: El Paso  
 Analysis: TDS      Analytical Method: SM 2540C      Prep Method: N/A  
 QC Batch: 96729<sup>2</sup>      Date Analyzed: 2012-11-13      Analyzed By: DL  
 Prep Batch: 81995      Sample Preparation: 2012-11-13      Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3800</b>	<b>3800</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 313932 - 42-3**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96523 Date Analyzed: 2012-11-13 Analyzed By: AK  
 Prep Batch: 81794 Sample Preparation: 2012-11-13 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 313933 - 42-6**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96785 Date Analyzed: 2012-11-09 Analyzed By: JR  
 Prep Batch: 82046 Sample Preparation: 2012-11-09 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>478</b>	<b>478</b>	<2.09	mg/L	10	2.09	2.5	0.209

**Sample: 313933 - 42-6**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96785 Date Analyzed: 2012-11-09 Analyzed By: JR  
 Prep Batch: 82046 Sample Preparation: 2012-11-09 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>75.9</b>	<b>75.9</b>	<0.0580	mg/L	10	0.0580	0.5	0.0058

**Sample: 313933 - 42-6**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96729<sup>3</sup> Date Analyzed: 2012-11-13 Analyzed By: DL  
 Prep Batch: 81995 Sample Preparation: 2012-11-13 Prepared By: DL

*continued . . .*

*sample 313933 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>2570</b>	<b>2570</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 313933 - 42-6**

Laboratory: Lubbock  
 Analysis: TKN  
 QC Batch: 96523  
 Prep Batch: 81794

Analytical Method: E 351.3  
 Date Analyzed: 2012-11-13  
 Sample Preparation: 2012-11-13

Prep Method: N/A  
 Analyzed By: AK  
 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 313934 - 42-8**

Laboratory: El Paso  
 Analysis: Chloride (IC)  
 QC Batch: 96786  
 Prep Batch: 82047

Analytical Method: E 300.0  
 Date Analyzed: 2012-11-09  
 Sample Preparation: 2012-11-09

Prep Method: N/A  
 Analyzed By: JR  
 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>283</b>	<b>283</b>	<2.09	mg/L	10	2.09	2.5	0.209

**Sample: 313934 - 42-8**

Laboratory: El Paso  
 Analysis: NO3 (IC)  
 QC Batch: 96786  
 Prep Batch: 82047

Analytical Method: E 300.0  
 Date Analyzed: 2012-11-09  
 Sample Preparation: 2012-11-09

Prep Method: N/A  
 Analyzed By: JR  
 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>30.4</b>	<b>30.4</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 313934 - 42-8**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96729<sup>4</sup> Date Analyzed: 2012-11-13 Analyzed By: DL  
 Prep Batch: 81995 Sample Preparation: 2012-11-13 Prepared By: DL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>1930</b>	<b>1930</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 313934 - 42-8**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96523 Date Analyzed: 2012-11-13 Analyzed By: AK  
 Prep Batch: 81794 Sample Preparation: 2012-11-13 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 313935 - 42-9**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96786 Date Analyzed: 2012-11-09 Analyzed By: JR  
 Prep Batch: 82047 Sample Preparation: 2012-11-09 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>641</b>	<b>641</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 313935 - 42-9**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96786 Date Analyzed: 2012-11-09 Analyzed By: JR  
 Prep Batch: 82047 Sample Preparation: 2012-11-09 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N		1	48.4	48.4	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 313935 - 42-9**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96729<sup>5</sup> Date Analyzed: 2012-11-13 Analyzed By: DL  
 Prep Batch: 81995 Sample Preparation: 2012-11-13 Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	3030	3030	<5.00	mg/L	1	5.00	5	5

**Sample: 313935 - 42-9**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96523 Date Analyzed: 2012-11-13 Analyzed By: AK  
 Prep Batch: 81794 Sample Preparation: 2012-11-13 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 313936 - 42-10**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96786 Date Analyzed: 2012-11-09 Analyzed By: JR  
 Prep Batch: 82047 Sample Preparation: 2012-11-09 Prepared By: JR

*continued ...*

*sample 313936 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>397</b>	<b>397</b>	<2.09	mg/L	10	2.09	2.5	0.209

**Sample: 313936 - 42-10**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96786 Date Analyzed: 2012-11-09 Analyzed By: JR  
 Prep Batch: 82047 Sample Preparation: 2012-11-09 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	u	1	<0.0290	<2.50	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 313936 - 42-10**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96729<sup>6</sup> Date Analyzed: 2012-11-13 Analyzed By: DL  
 Prep Batch: 81995 Sample Preparation: 2012-11-13 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>1350</b>	<b>1350</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 313936 - 42-10**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96523 Date Analyzed: 2012-11-13 Analyzed By: AK  
 Prep Batch: 81794 Sample Preparation: 2012-11-13 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 313937 - 42-11**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96787 Date Analyzed: 2012-11-10 Analyzed By: JR  
 Prep Batch: 82048 Sample Preparation: 2012-11-10 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>315</b>	<b>315</b>	<2.09	mg/L	10	2.09	2.5	0.209

**Sample: 313937 - 42-11**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96787 Date Analyzed: 2012-11-10 Analyzed By: JR  
 Prep Batch: 82048 Sample Preparation: 2012-11-10 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	u	1	<0.0290	<2.50	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 313937 - 42-11**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96729 <sup>7</sup> Date Analyzed: 2012-11-13 Analyzed By: DL  
 Prep Batch: 81995 Sample Preparation: 2012-11-13 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>1230</b>	<b>1230</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 313937 - 42-11**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96523 Date Analyzed: 2012-11-13 Analyzed By: AK  
 Prep Batch: 81794 Sample Preparation: 2012-11-13 Prepared By: AK

*continued ...*

sample 313937 continued ...

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 313938 - 42-12**

Laboratory: El Paso  
 Analysis: Chloride (IC)                      Analytical Method: E 300.0                      Prep Method: N/A  
 QC Batch: 96787                                  Date Analyzed: 2012-11-10                      Analyzed By: JR  
 Prep Batch: 82048                                  Sample Preparation: 2012-11-10                      Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>315</b>	<b>315</b>	<2.09	mg/L	10	2.09	2.5	0.209

**Sample: 313938 - 42-12**

Laboratory: El Paso  
 Analysis: NO3 (IC)                                  Analytical Method: E 300.0                      Prep Method: N/A  
 QC Batch: 96787                                  Date Analyzed: 2012-11-10                      Analyzed By: JR  
 Prep Batch: 82048                                  Sample Preparation: 2012-11-10                      Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	u	1	<0.0290	<2.50	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 313938 - 42-12**

Laboratory: El Paso  
 Analysis: TDS    Analytical Method: SM 2540C                      Prep Method: N/A  
 QC Batch: 96729 <sup>8</sup>                                  Date Analyzed: 2012-11-13                      Analyzed By: DL  
 Prep Batch: 81995                                  Sample Preparation: 2012-11-13                      Prepared By: DL



Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>1170</b>	<b>1170</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 313938 - 42-12**

Laboratory: Lubbock

Analysis: TKN

QC Batch: 96523

Prep Batch: 81794

Analytical Method: E 351.3

Date Analyzed: 2012-11-13

Sample Preparation: 2012-11-13

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N		2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 313939 - 42-13**

Laboratory: El Paso

Analysis: Chloride (IC)

QC Batch: 96787

Prep Batch: 82048

Analytical Method: E 300.0

Date Analyzed: 2012-11-10

Sample Preparation: 2012-11-10

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>835</b>	<b>835</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 313939 - 42-13**

Laboratory: El Paso

Analysis: NO3 (IC)

QC Batch: 96787

Prep Batch: 82048

Analytical Method: E 300.0

Date Analyzed: 2012-11-10

Sample Preparation: 2012-11-10

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>52.2</b>	<b>52.2</b>	<0.0580	mg/L	10	0.0580	0.5	0.0058

**Sample: 313939 - 42-13**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96729<sup>9</sup> Date Analyzed: 2012-11-13 Analyzed By: DL  
 Prep Batch: 81995 Sample Preparation: 2012-11-13 Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	3250	3250	<5.00	mg/L	1	5.00	5	5

**Sample: 313939 - 42-13**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96523 Date Analyzed: 2012-11-13 Analyzed By: AK  
 Prep Batch: 81794 Sample Preparation: 2012-11-13 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N		2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 313940 - 42 Lagoon**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96786 Date Analyzed: 2012-11-09 Analyzed By: JR  
 Prep Batch: 82047 Sample Preparation: 2012-11-09 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	916	916	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 313940 - 42 Lagoon**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96787 Date Analyzed: 2012-11-10 Analyzed By: JR  
 Prep Batch: 82048 Sample Preparation: 2012-11-10 Prepared By: JR

*continued ...*

sample 313940 continued ...

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	u	1	<0.0580	<5.00	<0.0580	mg/L	10	0.0580	0.5	0.0058

**Sample: 313940 - 42 Lagoon**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96729<sup>10</sup> Date Analyzed: 2012-11-13 Analyzed By: DL  
 Prep Batch: 81995 Sample Preparation: 2012-11-13 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>6000</b>	<b>6000</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 313940 - 42 Lagoon**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96523 Date Analyzed: 2012-11-13 Analyzed By: AK  
 Prep Batch: 81794 Sample Preparation: 2012-11-13 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N		2	<b>409</b>	<b>409</b>	<6.88	mg/L	4	6.88	10	1.72

## Method Blanks

### Method Blank (1)

QC Batch: 96523  
Prep Batch: 81794Date Analyzed: 2012-11-13  
QC Preparation: 2012-11-13Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.72	mg/L	1.72

### Method Blank (1)

QC Batch: 96729  
Prep Batch: 81995Date Analyzed: 2012-11-13  
QC Preparation: 2012-11-13Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 96785  
Prep Batch: 82046Date Analyzed: 2012-11-09  
QC Preparation: 2012-11-09Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

### Method Blank (1)

QC Batch: 96785  
Prep Batch: 82046Date Analyzed: 2012-11-09  
QC Preparation: 2012-11-09Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

---

**Method Blank (1)**QC Batch: 96786  
Prep Batch: 82047Date Analyzed: 2012-11-09  
QC Preparation: 2012-11-09Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

---

**Method Blank (1)**QC Batch: 96786  
Prep Batch: 82047Date Analyzed: 2012-11-09  
QC Preparation: 2012-11-09Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

---

**Method Blank (1)**QC Batch: 96787  
Prep Batch: 82048Date Analyzed: 2012-11-10  
QC Preparation: 2012-11-10Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

---

**Method Blank (1)**QC Batch: 96787  
Prep Batch: 82048Date Analyzed: 2012-11-10  
QC Preparation: 2012-11-10Analyzed By: JR  
Prepared By: JR

Report Date: November 26, 2012

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13600 Stern Drive, Mesquite, NM

---

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

---

**Duplicate (2)** Duplicated Sample: 313978

QC Batch: 96729

Date Analyzed: 2012-11-13

Analyzed By: DL

Prep Batch: 81995

QC Preparation: 2012-11-13

Prepared By: DL

---

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	4060	3840	mg/L	1	6	10
Total Dissolved Solids		1	4060	3250	mg/L	1	6	10

---

# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 96729  
Prep Batch: 81995Date Analyzed: 2012-11-13  
QC Preparation: 2012-11-13Analyzed By: DL  
Prepared By: DL

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	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	997	mg/L	1	1000	<5.00	100	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: 96785  
Prep Batch: 82046Date Analyzed: 2012-11-09  
QC Preparation: 2012-11-09Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	23.6	mg/L	1	25.0	<0.209	94	90 - 110

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	23.5	mg/L	1	25.0	<0.209	94	90 - 110	0	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: 96785  
Prep Batch: 82046Date Analyzed: 2012-11-09  
QC Preparation: 2012-11-09Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	4.67	mg/L	1	5.00	<0.00580	93	90 - 110

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

Param	F	C	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	4.67	mg/L	1	5.00	<0.00580	93	90 - 110	0	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: 96786  
Prep Batch: 82047

Date Analyzed: 2012-11-09  
QC Preparation: 2012-11-09

Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	23.4	mg/L	1	25.0	<0.209	94	90 - 110

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

Param	F	C	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	23.5	mg/L	1	25.0	<0.209	94	90 - 110	0	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: 96786  
Prep Batch: 82047

Date Analyzed: 2012-11-09  
QC Preparation: 2012-11-09

Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	4.65	mg/L	1	5.00	<0.00580	93	90 - 110

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

Param	F	C	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	4.67	mg/L	1	5.00	<0.00580	93	90 - 110	0	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: 96787  
Prep Batch: 82048

Date Analyzed: 2012-11-10  
QC Preparation: 2012-11-10

Analyzed By: JR  
Prepared By: JR



Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	23.4	mg/L	1	25.0	<0.209	94	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. Limit	RPD	RPD Limit
Chloride		1	23.5	mg/L	1	25.0	<0.209	94	90 - 110	0

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: 96787  
Prep Batch: 82048

Date Analyzed: 2012-11-10  
QC Preparation: 2012-11-10

Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	4.64	mg/L	1	5.00	<0.00580	93	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. Limit	RPD	RPD Limit
Nitrate-N		1	4.66	mg/L	1	5.00	<0.00580	93	90 - 110	0

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

**Matrix Spike (MS-1)** Spiked Sample: 313939

QC Batch: 96523  
Prep Batch: 81794

Date Analyzed: 2012-11-13  
QC Preparation: 2012-11-13

Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	33.6	mg/L	1	50.0	<1.72	67	10 - 151

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. Limit	RPD	RPD Limit
Total Kjeldahl Nitrogen - N		2	36.4	mg/L	1	50.0	<1.72	73	10 - 151	8

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

**Matrix Spike (MS-1)** Spiked Sample: 313931QC Batch: 96785  
Prep Batch: 82046Date Analyzed: 2012-11-09  
QC Preparation: 2012-11-09Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	1780	mg/L	55.6	1390	412	98	90 - 110

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

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1770	mg/L	55.6	1390	412	98	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: 313931QC Batch: 96785  
Prep Batch: 82046Date Analyzed: 2012-11-09  
QC Preparation: 2012-11-09Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	274	mg/L	55.6	278	8.99	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		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	271	mg/L	55.6	278	8.99	94	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: 313936QC Batch: 96786  
Prep Batch: 82047Date Analyzed: 2012-11-09  
QC Preparation: 2012-11-09Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	1730	mg/L	55.6	1390	397	96	90 - 110

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

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1740	mg/L	55.6	1390	397	97	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: 313936

QC Batch: 96786 Date Analyzed: 2012-11-09 Analyzed By: JR  
Prep Batch: 82047 QC Preparation: 2012-11-09 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	259	mg/L	55.6	278	<0.322	93	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
Nitrate-N		1	261	mg/L	55.6	278	<0.322	94	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: 313938

QC Batch: 96787 Date Analyzed: 2012-11-10 Analyzed By: JR  
Prep Batch: 82048 QC Preparation: 2012-11-10 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	1660	mg/L	55.6	1390	315	97	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	1660	mg/L	55.6	1390	315	97	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: 313938

QC Batch: 96787 Date Analyzed: 2012-11-10 Analyzed By: JR  
Prep Batch: 82048 QC Preparation: 2012-11-10 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	262	mg/L	55.6	278	<0.322	94	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
Nitrate-N		1	261	mg/L	55.6	278	<0.322	94	90 - 110	0	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: 96523

Date Analyzed: 2012-11-13

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.90	98	85 - 115	2012-11-13

### Standard (CCV-1)

QC Batch: 96523

Date Analyzed: 2012-11-13

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	5.32	106	85 - 115	2012-11-13

### Standard (CCV-1)

QC Batch: 96785

Date Analyzed: 2012-11-09

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.1	96	90 - 110	2012-11-09

### Standard (CCV-1)

QC Batch: 96785

Date Analyzed: 2012-11-09

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.75	95	90 - 110	2012-11-09

**Standard (CCV-2)**

QC Batch: 96785 Date Analyzed: 2012-11-09 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.9	96	90 - 110	2012-11-09

**Standard (CCV-2)**

QC Batch: 96785 Date Analyzed: 2012-11-09 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.73	95	90 - 110	2012-11-09

**Standard (CCV-1)**

QC Batch: 96786 Date Analyzed: 2012-11-09 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.9	96	90 - 110	2012-11-09

**Standard (CCV-1)**

QC Batch: 96786 Date Analyzed: 2012-11-09 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.73	95	90 - 110	2012-11-09

**Standard (CCV-2)**

QC Batch: 96786 Date Analyzed: 2012-11-09 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.8	95	90 - 110	2012-11-09

**Standard (CCV-2)**

QC Batch: 96786

Date Analyzed: 2012-11-09

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.72	94	90 - 110	2012-11-09

**Standard (CCV-1)**

QC Batch: 96787

Date Analyzed: 2012-11-10

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.8	95	90 - 110	2012-11-10

**Standard (CCV-1)**

QC Batch: 96787

Date Analyzed: 2012-11-10

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.72	94	90 - 110	2012-11-10

**Standard (CCV-2)**

QC Batch: 96787

Date Analyzed: 2012-11-10

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.7	95	90 - 110	2012-11-10

**Standard (CCV-2)**

QC Batch: 96787

Date Analyzed: 2012-11-10

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.70	94	90 - 110	2012-11-10

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## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.00	-
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.00	-
TKN	E 351.3	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

# 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	T104704221-12-3	El Paso
2	NELAP	T104704219-12-8	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 than 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

## Result Comments

- 1 Sample 313940 is a dilution of 10ml into 100ml
- 2 Sample 313940 is a dilution of 10ml into 100ml
- 3 Sample 313940 is a dilution of 10ml into 100ml
- 4 Sample 313940 is a dilution of 10ml into 100ml
- 5 Sample 313940 is a dilution of 10ml into 100ml
- 6 Sample 313940 is a dilution of 10ml into 100ml
- 7 Sample 313940 is a dilution of 10ml into 100ml

- 8 Sample 313940 is a dilution of 10ml into 100ml
- 9 Sample 313940 is a dilution of 10ml into 100ml
- 10 Sample 313940 is a dilution of 10ml into 100ml

## **Attachments**

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

6701 Aberdeen, Site 9  
 Lubbock, TX 79424  
 Tel (806) 794-1296  
 Fax (806) 794-1298

# TraceAnalysis, Inc.

Company Name: D&H Petroleum & Environmental Services  
 Address: (Street, City, Zip)  
 1221 Tower Trail Ln., El Paso, Texas 79907  
 Contact Person: Victor Ayala  
 Phone #: 915-859-8150  
 Cell #:   
 Fax #:   
 E-mail: [vayala@dhpump.com](mailto:vayala@dhpump.com)

Invoice to (if different from above):  
 Dominguez Dairy #2, P.O. Box 21, Mesquite, NM 88048  
 Project #: 401371  
 Project Location (including state):  
 Dominguez Dairy #2, 13600 Stern Drive, Mesquite, NM  
 Sampler Signature: *Chad A. Rivera*  
 Project Name: Dominguez Dairy #2

Isaac Dominguez 575-649-7040  
 Dominguez Dairy #2

LAB #	Field Code	# Containers	Volume/Amount	MATRIX				PRESERVATIVE METHOD				Sampling		
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE
313931-1	42-2	1	250ml	X				X				X	11-9-12	11:11
313931-2	42-2	1	250ml	X				X				X	11-9-12	11:11
313932-1	42-3	1	250ml	X				X				X	11-9-12	7:43
313932-2	42-3	1	250ml	X				X				X	11-9-12	7:43
313933-1	42-6	1	250ml	X				X				X	11-9-12	13:34
313933-2	42-6	1	250ml	X				X				X	11-9-12	13:34
313934-1	42-7	1		X				X				X		
313934-2	42-7	1		X				X				X		
313934-3	42-8	1	250ml	X				X				X	11-9-12	11:58
313934-4	42-8	1	250ml	X				X				X	11-9-12	11:58
313935-1	42-9	1	250ml	X				X				X	11-9-12	8:45
313935-2	42-9	1	250ml	X				X				X	11-9-12	8:45
313936-1	42-10	1	250ml	X				X				X	11-9-12	15:15
313936-2	42-10	1	250ml	X				X				X	11-9-12	15:15
313937-1	42-11	1	250ml	X				X				X	11-9-12	14:18
313937-2	42-11	1	250ml	X				X				X	11-9-12	14:18

Relinquished By: *Chad A. Rivera* Date: 11-9-12 Time: 15:30  
 Received By: *[Signature]* Date: 11-9-12 Time: 15:30  
 Relinquished By: *[Signature]* Date: 11-9-12 Time: 16:30  
 Received By: *[Signature]* Date: 11/9/12 Time: 9:50

Page 1 of 2  
 CHAIN-OF-CUSTODY AND ANALYSIS REQUEST  
 LAB Order ID # 12110926

ANALYSIS REQUEST	Hold
MTBE 8021B/602	
BTEX 8021B/602	
TPH 418.1 / TX1005	
TX 1005 Extended (C35)	
PAH 8270C	
PAH 8270 (Low Level Analysis)	
Total Metals Ag As BA Cd Cr Pb Se Hg 6010B/200.7	X
Nitrates EPA 300	X
Total Kjeldahl Nitrogen SM 4500 NORG C	X
Chloride EPA 300.0	X
Total Dissolved Solids SM 2540 C MOD	X

Remarks: CE 25 48542665  
 Carry in  
 Dry Weight Basis Required  
 TRRP Report Required

6701 Aberdeen, Ste. 9  
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# TraceAnalysis, Inc.

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LAB Order ID # 1216924

Phone #: 915-859-8150  
Cell #:

Company Name:  
D&H Petroleum & Environmental Services

Address: (Street, City, Zip)  
1221 Tower Trail Ln., El Paso, Texas 79907

Contact Person:  
Victor Ayala

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E-mail: [vayala@dhpump.com](mailto:vayala@dhpump.com)

Invoice to (if different from above):  
Dominguez Dairy #2, P.O. Box 21, Mesquite, NM 88048

Project #: 401371

Project Name:  
Dominguez Dairy #2

Sampler Signatory:  
*[Signature]*

Project Location (including state):  
Dominguez Dairy #2, 13600 Stern Drive, Mesquite, NM

Project Name:  
Dominguez Dairy #2

LAB # (LAB USE ONLY)	Field Code	# Containers	Volume/Amount	MATRIX				PRESERVATIVE METHOD				SAMPLING	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE
33938-1	42-12	1	250ml	X				X		X		11-9-12	14:48
33938-2	42-12	1	250ml	X				X		X		11-9-12	14:48
33939-1	42-13	1	250ml	X				X		X		11-9-12	9:49
33939-2	42-13	1	250ml	X				X		X		11-9-12	9:49
33940-1	42 Lagoon	1	250ml	X				X		X		11-9-12	10:08
33940-1	42 Lagoon	1	250ml	X				X		X		11-9-12	10:08

ANALYSIS REQUEST	Hold
MTBE 8021B/602	
BTEX 8021B/602	
TPH 418.1 / TX1005	
TX 1005 Extended (C35)	
PAH 8270C	
PAH 8270 (Low Level Analysis)	
Total Metals Ag As BA Cd Cr Pb Se Hg 6010B/200.7	
Nitrates EPA 300	
Total Kjeldhal Nitrogen SM 4500 NORG C	
Chloride EPA 300.0	
Total Dissolved Solids SM 2540 C MOD	

Relinquished By: *[Signature]* Date: 11-9-12 Time: 15:30  
Received By: *[Signature]* Date: 11-9-12 Time: 15:30  
Relinquished By: *[Signature]* Date: 11-9-12 Time: 16:50  
Received By: *[Signature]* Date: 11/9/12 Time: 9:00

Remarks: 10E RS  
Copy in 48542605

Lab Use Only  
Intac Y/N   
Headspace Y/N   
Temp 27.3/24  
Log-in Review

Dry Weight Basis Required  
TRRP Report Required



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## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Michael Weatherly  
Buena Vista Dairy #2  
16910 Stern Drive  
P.O. Box 346  
Mesquite, NM, 88048

Report Date: November 27, 2012

Work Order: 12111435



DP: 74  
Project Location: 16910 Stern Drive, Mesquite, NM  
Project Name: Buena Vista Dairy #2

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
314178	74-1	water	2012-11-14	09:36	2012-11-14
314179	74-2	water	2012-11-14	08:35	2012-11-14
314180	74-3	water	2012-11-14	07:42	2012-11-14
314181	74-4	water	2012-11-14	10:58	2012-11-14
314182	74-5	water	2012-11-14	13:54	2012-11-14
314183	74 Lagoon	water	2012-11-14	10:07	2012-11-14

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 25 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

### Notes:

*For inorganic analyses, the term MQL should actually read PQL.*

*Michael Abel*

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

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## Case Narrative

Samples for project Buena Vista Dairy #2 were received by TraceAnalysis, Inc. on 2012-11-14 and assigned to work order 12111435. Samples for work order 12111435 were received intact at a temperature of 0.0 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	81931	2012-11-15 at 12:00	96657	2012-11-15 at 14:30
Chloride (IC)	E 300.0	81932	2012-11-16 at 08:00	96665	2012-11-16 at 08:00
NO3 (IC)	E 300.0	81931	2012-11-15 at 12:00	96657	2012-11-15 at 14:30
NO3 (IC)	E 300.0	81932	2012-11-16 at 08:00	96665	2012-11-16 at 08:00
TDS	SM 2540C	82072	2012-11-16 at 10:00	96816	2012-11-16 at 10:00
TDS	SM 2540C	82139	2012-11-16 at 10:00	96897	2012-11-16 at 10:00
TKN	E 351.3	82034	2012-11-20 at 10:30	96775	2012-11-20 at 15:00
TKN	E 351.3	82082	2012-11-26 at 09:10	96850	2012-11-26 at 13:10

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 12111435 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: 314178 - 74-1**

Laboratory: Lubbock  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96657 Date Analyzed: 2012-11-15 Analyzed By: RL  
 Prep Batch: 81931 Sample Preparation: 2012-11-15 Prepared By: RL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		2	<b>963</b>	<b>963</b>	<20.9	mg/L	100	20.9	2.5	0.209

**Sample: 314178 - 74-1**

Laboratory: Lubbock  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96657 Date Analyzed: 2012-11-15 Analyzed By: RL  
 Prep Batch: 81931 Sample Preparation: 2012-11-15 Prepared By: RL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		2	<b>94.2</b>	<b>94.2</b>	<1.19	mg/L	100	1.19	0.04	0.0119

**Sample: 314178 - 74-1**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96816 Date Analyzed: 2012-11-16 Analyzed By: DL  
 Prep Batch: 82072 Sample Preparation: 2012-11-16 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3510</b>	<b>3510</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314178 - 74-1**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96775 Date Analyzed: 2012-11-20 Analyzed By: AK  
 Prep Batch: 82034 Sample Preparation: 2012-11-20 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	J	2	<b>8.40</b>	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314179 - 74-2**

Laboratory: Lubbock  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96657 Date Analyzed: 2012-11-15 Analyzed By: RL  
 Prep Batch: 81931 Sample Preparation: 2012-11-15 Prepared By: RL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		2	<b>484</b>	<b>484</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 314179 - 74-2**

Laboratory: Lubbock  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96657 Date Analyzed: 2012-11-15 Analyzed By: RL  
 Prep Batch: 81931 Sample Preparation: 2012-11-15 Prepared By: RL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		2	<b>12.7</b>	<b>12.7</b>	<0.0595	mg/L	5	0.0595	0.04	0.0119

**Sample: 314179 - 74-2**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96816 Date Analyzed: 2012-11-16 Analyzed By: DL  
 Prep Batch: 82072 Sample Preparation: 2012-11-16 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>2150</b>	<b>2150</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314179 - 74-2**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96775 Date Analyzed: 2012-11-20 Analyzed By: AK  
 Prep Batch: 82034 Sample Preparation: 2012-11-20 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	J	2	<b>2.10</b>	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314180 - 74-3**

Laboratory: Lubbock  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96657 Date Analyzed: 2012-11-15 Analyzed By: RL  
 Prep Batch: 81931 Sample Preparation: 2012-11-15 Prepared By: RL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		2	<b>1300</b>	<b>1300</b>	<20.9	mg/L	100	20.9	2.5	0.209

**Sample: 314180 - 74-3**

Laboratory: Lubbock  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96657 Date Analyzed: 2012-11-15 Analyzed By: RL  
 Prep Batch: 81931 Sample Preparation: 2012-11-15 Prepared By: RL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		2	<b>1.06</b>	<b>1.06</b>	<0.0595	mg/L	5	0.0595	0.04	0.0119

**Sample: 314180 - 74-3**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96897 Date Analyzed: 2012-11-16 Analyzed By: DL  
 Prep Batch: 82139 Sample Preparation: 2012-11-16 Prepared By: DL

*continued . . .*

*sample 314180 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>4440</b>	<b>4440</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314180 - 74-3**

Laboratory: Lubbock

Analysis: TKN

QC Batch: 96775

Prep Batch: 82034

Analytical Method: E 351.3

Date Analyzed: 2012-11-20

Sample Preparation: 2012-11-20

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314181 - 74-4**

Laboratory: Lubbock

Analysis: Chloride (IC)

QC Batch: 96657

Prep Batch: 81931

Analytical Method: E 300.0

Date Analyzed: 2012-11-15

Sample Preparation: 2012-11-15

Prep Method: N/A

Analyzed By: RL

Prepared By: RL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		2	<b>499</b>	<b>499</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 314181 - 74-4**

Laboratory: Lubbock

Analysis: NO3 (IC)

QC Batch: 96657

Prep Batch: 81931

Analytical Method: E 300.0

Date Analyzed: 2012-11-15

Sample Preparation: 2012-11-15

Prep Method: N/A

Analyzed By: RL

Prepared By: RL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		2	<b>19.3</b>	<b>19.3</b>	<0.0595	mg/L	5	0.0595	0.04	0.0119

**Sample: 314181 - 74-4**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96897 Date Analyzed: 2012-11-16 Analyzed By: DL  
 Prep Batch: 82139 Sample Preparation: 2012-11-16 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>2140</b>	<b>2140</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314181 - 74-4**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96850 Date Analyzed: 2012-11-26 Analyzed By: AK  
 Prep Batch: 82082 Sample Preparation: 2012-11-26 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314182 - 74-5**

Laboratory: Lubbock  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96657 Date Analyzed: 2012-11-15 Analyzed By: RL  
 Prep Batch: 81931 Sample Preparation: 2012-11-15 Prepared By: RL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		2	<b>219</b>	<b>219</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 314182 - 74-5**

Laboratory: Lubbock  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96657 Date Analyzed: 2012-11-15 Analyzed By: RL  
 Prep Batch: 81931 Sample Preparation: 2012-11-15 Prepared By: RL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		2	17.0	17.0	<0.0595	mg/L	5	0.0595	0.04	0.0119

**Sample: 314182 - 74-5**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96897 Date Analyzed: 2012-11-16 Analyzed By: DL  
 Prep Batch: 82139 Sample Preparation: 2012-11-16 Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	1900	1900	<5.00	mg/L	1	5.00	5	5

**Sample: 314182 - 74-5**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96850 Date Analyzed: 2012-11-26 Analyzed By: AK  
 Prep Batch: 82082 Sample Preparation: 2012-11-26 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314183 - 74 Lagoon**

Laboratory: Lubbock  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96665 Date Analyzed: 2012-11-16 Analyzed By: RL  
 Prep Batch: 81932 Sample Preparation: 2012-11-16 Prepared By: RL

*continued ...*



sample 314183 continued ...

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		2	<b>357</b>	<b>357</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 314183 - 74 Lagoon**

Laboratory: Lubbock  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96665 Date Analyzed: 2012-11-16 Analyzed By: RL  
 Prep Batch: 81932 Sample Preparation: 2012-11-16 Prepared By: RL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	u	2	<0.0595	<0.200	<0.0595	mg/L	5	0.0595	0.04	0.0119

**Sample: 314183 - 74 Lagoon**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96897 Date Analyzed: 2012-11-16 Analyzed By: DL  
 Prep Batch: 82139 Sample Preparation: 2012-11-16 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>1780</b>	<b>1780</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314183 - 74 Lagoon**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96850 Date Analyzed: 2012-11-26 Analyzed By: AK  
 Prep Batch: 82082 Sample Preparation: 2012-11-26 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

## Method Blanks

### Method Blank (1)

QC Batch: 96657  
Prep Batch: 81931Date Analyzed: 2012-11-15  
QC Preparation: 2012-11-15Analyzed By: RL  
Prepared By: RL

Parameter	F	C	Result	Units	Reporting Limits
Chloride		2	0.236	mg/L	0.209

### Method Blank (1)

QC Batch: 96657  
Prep Batch: 81931Date Analyzed: 2012-11-15  
QC Preparation: 2012-11-15Analyzed By: RL  
Prepared By: RL

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		2	<0.0119	mg/L	0.0119

### Method Blank (1)

QC Batch: 96665  
Prep Batch: 81932Date Analyzed: 2012-11-16  
QC Preparation: 2012-11-16Analyzed By: RL  
Prepared By: RL

Parameter	F	C	Result	Units	Reporting Limits
Chloride		2	<0.209	mg/L	0.209

### Method Blank (1)

QC Batch: 96665  
Prep Batch: 81932Date Analyzed: 2012-11-16  
QC Preparation: 2012-11-16Analyzed By: RL  
Prepared By: RL

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		2	<0.0119	mg/L	0.0119

**Method Blank (1)**QC Batch: 96775  
Prep Batch: 82034Date Analyzed: 2012-11-20  
QC Preparation: 2012-11-20Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.72	mg/L	1.72

**Method Blank (1)**QC Batch: 96816  
Prep Batch: 82072Date Analyzed: 2012-11-16  
QC Preparation: 2012-11-16Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

**Method Blank (1)**QC Batch: 96850  
Prep Batch: 82082Date Analyzed: 2012-11-26  
QC Preparation: 2012-11-26Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.72	mg/L	1.72

**Method Blank (1)**QC Batch: 96897  
Prep Batch: 82139Date Analyzed: 2012-11-16  
QC Preparation: 2012-11-16Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

**Duplicate (1)** Duplicated Sample: 314065

QC Batch: 96816 Date Analyzed: 2012-11-16 Analyzed By: DL  
 Prep Batch: 82072 QC Preparation: 2012-11-16 Prepared By: DL

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	3970	3900	mg/L	1	2	10

**Duplicate (1)** Duplicated Sample: 314343

QC Batch: 96897 Date Analyzed: 2012-11-16 Analyzed By: DL  
 Prep Batch: 82139 QC Preparation: 2012-11-16 Prepared By: DL

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	2600	2450	mg/L	1	6	10

# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 96657 Date Analyzed: 2012-11-15 Analyzed By: RL  
Prep Batch: 81931 QC Preparation: 2012-11-15 Prepared By: RL

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		2	22.9	mg/L	1	25.0	<0.209	92	90 - 110

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

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		2	24.1	mg/L	1	25.0	<0.209	96	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: 96657 Date Analyzed: 2012-11-15 Analyzed By: RL  
Prep Batch: 81931 QC Preparation: 2012-11-15 Prepared By: RL

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		2	4.84	mg/L	1	5.00	<0.0119	97	90 - 110

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

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		2	5.01	mg/L	1	5.00	<0.0119	100	90 - 110	3	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: 96665 Date Analyzed: 2012-11-16 Analyzed By: RL  
Prep Batch: 81932 QC Preparation: 2012-11-16 Prepared By: RL

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		2	24.1	mg/L	1	25.0	<0.209	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		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		2	24.0	mg/L	1	25.0	<0.209	96	90 - 110	0	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: 96665  
Prep Batch: 81932

Date Analyzed: 2012-11-16  
QC Preparation: 2012-11-16

Analyzed By: RL  
Prepared By: RL

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
			Result	Units					
Nitrate-N		2	5.04	mg/L	1	5.00	<0.0119	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		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		2	5.05	mg/L	1	5.00	<0.0119	101	90 - 110	0	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: 96816  
Prep Batch: 82072

Date Analyzed: 2012-11-16  
QC Preparation: 2012-11-16

Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
			Result	Units					
Total Dissolved Solids		1	994	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		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Total Dissolved Solids		1	998	mg/L	1	1000	<5.00	100	90 - 110	0	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: 96897  
Prep Batch: 82139

Date Analyzed: 2012-11-16  
QC Preparation: 2012-11-16

Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	966	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	975	mg/L	1	1000	<5.00	98	90 - 110	1	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: 314182

QC Batch: 96657 Date Analyzed: 2012-11-15 Analyzed By: RL  
Prep Batch: 81931 QC Preparation: 2012-11-15 Prepared By: RL

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		2	1610	mg/L	50	1250	219	111	80 - 120

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		2	1600	mg/L	50	1250	219	110	80 - 120	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: 314182

QC Batch: 96657 Date Analyzed: 2012-11-15 Analyzed By: RL  
Prep Batch: 81931 QC Preparation: 2012-11-15 Prepared By: RL

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		2	250	mg/L	50	250	7.29	97	80 - 120

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
Nitrate-N		2	248	mg/L	50	250	7.29	96	80 - 120	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: 314288QC Batch: 96665  
Prep Batch: 81932Date Analyzed: 2012-11-16  
QC Preparation: 2012-11-16Analyzed By: RL  
Prepared By: RL

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		2	672	mg/L	10	250	416	102	80 - 120

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		2	668	mg/L	10	250	416	101	80 - 120	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: 314288QC Batch: 96665  
Prep Batch: 81932Date Analyzed: 2012-11-16  
QC Preparation: 2012-11-16Analyzed By: RL  
Prepared By: RL

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		2	45.3	mg/L	10	50.0	0.899	89	80 - 120

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
Nitrate-N		2	45.1	mg/L	10	50.0	0.899	88	80 - 120	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: 314180QC Batch: 96775  
Prep Batch: 82034Date Analyzed: 2012-11-20  
QC Preparation: 2012-11-20Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	39.9	mg/L	1	50.0	<1.72	80	10 - 151

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
Total Kjeldahl Nitrogen - N		2	39.2	mg/L	1	50.0	<1.72	78	10 - 151	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: 314638

QC Batch: 96850  
 Prep Batch: 82082

Date Analyzed: 2012-11-26  
 QC Preparation: 2012-11-26

Analyzed By: AK  
 Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	42.0	mg/L	1	50.0	2.1	80	10 - 151

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
Total Kjeldahl Nitrogen - N		2	43.4	mg/L	1	50.0	2.1	83	10 - 151	3	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: 96657

Date Analyzed: 2012-11-15

Analyzed By: RL

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		2	mg/L	25.0	25.0	100	90 - 110	2012-11-15

### Standard (CCV-1)

QC Batch: 96657

Date Analyzed: 2012-11-15

Analyzed By: RL

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		2	mg/L	5.00	5.29	106	90 - 110	2012-11-15

### Standard (CCV-2)

QC Batch: 96657

Date Analyzed: 2012-11-15

Analyzed By: RL

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		2	mg/L	25.0	24.3	97	90 - 110	2012-11-15

### Standard (CCV-2)

QC Batch: 96657

Date Analyzed: 2012-11-15

Analyzed By: RL

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		2	mg/L	5.00	5.11	102	90 - 110	2012-11-15

**Standard (CCV-1)**

QC Batch:	96665	Date Analyzed:	2012-11-16	Analyzed By:	RL			
Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		2	mg/L	25.0	23.1	92	90 - 110	2012-11-16

**Standard (CCV-1)**

QC Batch:	96665	Date Analyzed:	2012-11-16	Analyzed By:	RL			
Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		2	mg/L	5.00	4.87	97	90 - 110	2012-11-16

**Standard (CCV-2)**

QC Batch:	96665	Date Analyzed:	2012-11-16	Analyzed By:	RL			
Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		2	mg/L	25.0	24.9	100	90 - 110	2012-11-16

**Standard (CCV-2)**

QC Batch:	96665	Date Analyzed:	2012-11-16	Analyzed By:	RL			
Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		2	mg/L	5.00	5.24	105	90 - 110	2012-11-16

**Standard (ICV-1)**

QC Batch:	96775	Date Analyzed:	2012-11-20	Analyzed By:	AK
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Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.90	98	85 - 115	2012-11-20

**Standard (CCV-1)**

QC Batch: 96775

Date Analyzed: 2012-11-20

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	5.04	101	85 - 115	2012-11-20

**Standard (ICV-1)**

QC Batch: 96850

Date Analyzed: 2012-11-26

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.62	92	85 - 115	2012-11-26

**Standard (CCV-1)**

QC Batch: 96850

Date Analyzed: 2012-11-26

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.48	90	85 - 115	2012-11-26

---

## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike	
					Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.600	Pass
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.0800	Pass
TKN	E 351.3	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

---

# 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	T104704221-12-3	El Paso
2	NELAP	T104704219-12-8	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 than 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.

# TraceAnalysis, Inc.

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # **1711435**

Company Name: Phone #: 915-859-8150

D&H Petroleum & Environmental Services  
 Address: (Street, City, Zip)  
 1221 Tower Trail Ln., El Paso, Texas 79907

Contact Person: Victor Ayala  
 E-mail: yavalia@dhpump.com

Invoice to (if different from above):  
 Buena Vista Dairy #2, P.O. Box 346, Mesquite, NM 88048  
 Project #: **401367**

Project Name: Buena Vista Dairy #2

Project Location (including state):  
 Buena Vista Dairy #2, 16910 Stern Drive, Mesquite, NM

LAB #	(LAB USE ONLY)	Field Code	# Containers	Volume/Amount	MATRIX			PRESERVATIVE METHOD				SAMPLING			
					WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	F <sub>2</sub> O <sub>4</sub>	NaOH	ICE	NONE	DATE
314171-1	74-1		1	2.5ml	X			X			X			11-14-12	9:36
314172-2	74-1		2	2.5ml	X			X			X			11-14-12	9:36
314173-1	74-2		1	2.5ml	X			X			X			11-14-12	8:35
314174-2	74-2		2	2.5ml	X			X			X			11-14-12	8:35
314175-1	74-3		1	2.5ml	X			X			X			11-14-12	7:42
314176-2	74-3		2	2.5ml	X			X			X			11-14-12	7:42
314181-1	74-4		1	2.5ml	X			X			X			11-14-12	10:58
314182-2	74-4	314181-2	2	2.5ml	X			X			X			11-14-12	10:58
314183-1	74-5	314182-1	1	2.5ml	X			X			X			11-14-12	13:54
314184-2	74-5	314182-2	2	2.5ml	X			X			X			11-14-12	13:54
314185-1	74 Lagoon	314183-1	1	2.5ml	X			X			X			11-14-12	10:07
314186-2	74 Lagoon		2	2.5ml	X			X			X			11-14-12	10:07

### ANALYSIS REQUEST

MTBE 8021B/602	
BTEX 8021B/602	
TPH 418.1 / TX1005	
TX 1005 Extended (C35)	
PAH 8270C	
PAH 8270 (Low Level Analysis)	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	X
Nitrates EPA 300	X
Total Kjeldahl Nitrogen SM 4500 NORG C	X
Chloride EPA 300.0	X
Total Dissolved Solids SM 2540 C MOD	X

Reinquinshed By: *Charles N. Ewing* Date: 11-14-12 Time: 15:03

Reinquinshed By: *[Signature]* Date: 11-14-12 Time: 16:30

Received By: *[Signature]* Date: 11-14-12 Time: 15:03

Received at Laboratory By: *[Signature]* Date: 11-14-12 Time: 15:03

Lab Use Only  
 Intact Y / N  
 Headspace Y / N  
 Temp **102-910**  
 Log-in Review **201**

Remarks: *TS done in Elbow*

Dry Weight Basis Required  TRRP Report Required

11-14-12 (12)

LAB Order ID # **1211435**

Company Name: **D&H Petroleum & Environmental Services**  
 Address: (Street, City, Zip) **1221 Tower Trail Ln., El Paso, Texas 79907**  
 Contact Person: **Victor Ayala**  
 Phone #: **915-859-8150**  
 Cell #: **yayala@dhpump.com**  
 Fax #: **915-859-8150**  
 E-mail: **yayala@dhpump.com**

Project Name: **401367**  
 Project Location (including state): **Buena Vista Dairy #2, P.O. Box 346, Mesquite, NM 88048**  
 Sampler Signature: *Carol A. Fe*  
 Project Name: **Buena Vista Dairy #2**

LAB #	Field Code	# Containers	Volume/Amount	MATRIX			PRESERVATIVE METHOD				SAMPLING		
				WATER	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE
314175-1	74-1	1	250ml	X			X					11-14-12	9:36
314176-2	74-1	2	250ml	X			X					11-14-12	9:36
314177-1	74-2	1	250ml	X			X					11-14-12	8:35
314179-2	74-2	2	250ml	X			X					11-14-12	8:35
314180-1	74-3	1	250ml	X			X					11-14-12	7:42
314180-2	74-3	2	250ml	X			X					11-14-12	7:42
314181-1	74-4	1	250ml	X			X					11-14-12	10:58
314181-2	314181-2	2	250ml	X			X					11-14-12	10:58
314182-1	314182-1	1	250ml	X			X					11-14-12	13:54
314182-2	314182-2	2	250ml	X			X					11-14-12	13:54
314183-1	74 Lagoon 314183-1	1	250ml	X			X					11-14-12	10:07
314183-2	74 Lagoon	2	250ml	X			X					11-14-12	10:07

ANALYSIS REQUEST

MTBE 8021B/602	
BTEX 8021B/602	
TPH 418.1 / TX1005	
TX 1005 Extended (C35)	
PAH 8270C	
PAH 8270 (Low Level Analysis)	
Total Metals Ag As BA Cd Cr Pb Se Hg 6010B/200.7	X
Nitrates EPA 300	X
Total Kjeldahl Nitrogen SM 4500 NORG C	X
Chloride EPA 300.0	X
Total Dissolved Solids SM 2540 C MOD	X

Turn Around Time

Hold

Relinquished By: *Carol A. Fe* Date: 11-14-12 Time: 15:03  
 Relinquished By: *[Signature]* Date: 11-14-12 Time: 16:30

Received By: *[Signature]* Date: 11-14-12 Time: 15:03  
 Received By: *[Signature]* Date: 11-14-12 Time: 16:30

Lab Use Only  
 Intact Y / N  
 Headspace Y / N  
 Temp *102-110*  
 Log-in Review *2011*

Remarks: *TS done in El Paso 12/9/12 3.4 FS 48542669*

Dry Weight Basis Required   
 TRRP Report Required  (12)





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 915-585-3443 FAX 915-585-4944  
 5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
 (BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Isaac Dominguez  
 Dominguez Dairy #1  
 13950 Stern Drive  
 P.O. Box 21  
 Mesquite, NM, 88048

Report Date: November 27, 2012

Work Order: 12111218



DP: 624  
 Project Location: 13950 Stern Dr., Mesquite, NM  
 Project Name: Dominguez Dairy #1

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
313975	624-01	water	2012-11-12	11:35	2012-11-12
313976	624-02	water	2012-11-12	10:03	2012-11-12
313977	624-05	water	2012-11-12	08:53	2012-11-12
313978	624-06	water	2012-11-12	12:31	2012-11-12
313979	624-Lagoon	water	2012-11-12	13:11	2012-11-12

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 22 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

**Notes:**

*For inorganic analyses, the term MQL should actually read PQL.*

*Michael Abel*

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

# Report Contents

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Sample 313976 (624-02) . . . . .	6
Sample 313977 (624-05) . . . . .	7
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## Case Narrative

Samples for project Dominguez Dairy #1 were received by TraceAnalysis, Inc. on 2012-11-12 and assigned to work order 12111218. Samples for work order 12111218 were received intact at a temperature of 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	82123	2012-11-13 at 16:27	96879	2012-11-13 at 16:27
Chloride (IC)	E 300.0	82124	2012-11-13 at 20:40	96880	2012-11-13 at 20:40
NO3 (IC)	E 300.0	82123	2012-11-13 at 16:27	96879	2012-11-13 at 16:27
NO3 (IC)	E 300.0	82124	2012-11-13 at 20:40	96880	2012-11-13 at 20:40
TDS	SM 2540C	81995	2012-11-13 at 09:00	96729	2012-11-13 at 09:00
TKN	E 351.3	82031	2012-11-20 at 10:30	96771	2012-11-20 at 14:45

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 12111218 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: 313975 - 624-01**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96879 Date Analyzed: 2012-11-13 Analyzed By: JR  
 Prep Batch: 82123 Sample Preparation: 2012-11-13 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>652</b>	<b>652</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 313975 - 624-01**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96879 Date Analyzed: 2012-11-13 Analyzed By: JR  
 Prep Batch: 82123 Sample Preparation: 2012-11-13 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>12.2</b>	<b>12.2</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 313975 - 624-01**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96729<sup>1</sup> Date Analyzed: 2012-11-13 Analyzed By: DL  
 Prep Batch: 81995 Sample Preparation: 2012-11-13 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>2590</b>	<b>2590</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 313975 - 624-01**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96771 Date Analyzed: 2012-11-20 Analyzed By: AK  
 Prep Batch: 82031 Sample Preparation: 2012-11-20 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 313976 - 624-02**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96879 Date Analyzed: 2012-11-13 Analyzed By: JR  
 Prep Batch: 82123 Sample Preparation: 2012-11-13 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>1170</b>	<b>1170</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 313976 - 624-02**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96879 Date Analyzed: 2012-11-13 Analyzed By: JR  
 Prep Batch: 82123 Sample Preparation: 2012-11-13 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>12.7</b>	<b>12.7</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 313976 - 624-02**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96729<sup>2</sup> Date Analyzed: 2012-11-13 Analyzed By: DL  
 Prep Batch: 81995 Sample Preparation: 2012-11-13 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3830</b>	<b>3830</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 313976 - 624-02**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96771 Date Analyzed: 2012-11-20 Analyzed By: AK  
 Prep Batch: 82031 Sample Preparation: 2012-11-20 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 313977 - 624-05**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96879 Date Analyzed: 2012-11-13 Analyzed By: JR  
 Prep Batch: 82123 Sample Preparation: 2012-11-13 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>440</b>	<b>440</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 313977 - 624-05**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96879 Date Analyzed: 2012-11-13 Analyzed By: JR  
 Prep Batch: 82123 Sample Preparation: 2012-11-13 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>4.82</b>	<b>4.82</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 313977 - 624-05**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96729<sup>3</sup> Date Analyzed: 2012-11-13 Analyzed By: DL  
 Prep Batch: 81995 Sample Preparation: 2012-11-13 Prepared By: DL

*continued . . .*

*sample 313977 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>2200</b>	<b>2200</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 313977 - 624-05**

Laboratory: Lubbock

Analysis: TKN

QC Batch: 96771

Prep Batch: 82031

Analytical Method: E 351.3

Date Analyzed: 2012-11-20

Sample Preparation: 2012-11-20

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 313978 - 624-06**

Laboratory: El Paso

Analysis: Chloride (IC)

QC Batch: 96880

Prep Batch: 82124

Analytical Method: E 300.0

Date Analyzed: 2012-11-13

Sample Preparation: 2012-11-13

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>1060</b>	<b>1060</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 313978 - 624-06**

Laboratory: El Paso

Analysis: NO3 (IC)

QC Batch: 96880

Prep Batch: 82124

Analytical Method: E 300.0

Date Analyzed: 2012-11-13

Sample Preparation: 2012-11-13

Prep Method: N/A

Analyzed By: JR

Prepared By: JR



Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>28.3</b>	<b>28.3</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 313978 - 624-06**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96729<sup>4</sup> Date Analyzed: 2012-11-13 Analyzed By: DL  
 Prep Batch: 81995 Sample Preparation: 2012-11-13 Prepared By: DL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>3840</b>	<b>3840</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 313978 - 624-06**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96771 Date Analyzed: 2012-11-20 Analyzed By: AK  
 Prep Batch: 82031 Sample Preparation: 2012-11-20 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 313979 - 624-Lagoon**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96880 Date Analyzed: 2012-11-13 Analyzed By: JR  
 Prep Batch: 82124 Sample Preparation: 2012-11-13 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>4710</b>	<b>4710</b>	<20.9	mg/L	100	20.9	2.5	0.209

**Sample: 313979 - 624-Lagoon**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96880 Date Analyzed: 2012-11-13 Analyzed By: JR  
 Prep Batch: 82124 Sample Preparation: 2012-11-13 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N	u	1	<0.290	<25.0	<0.290	mg/L	50	0.290	0.5	0.0058

**Sample: 313979 - 624-Lagoon**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96729<sup>5</sup> Date Analyzed: 2012-11-13 Analyzed By: DL  
 Prep Batch: 81995 Sample Preparation: 2012-11-13 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>26700</b>	<b>26700</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 313979 - 624-Lagoon**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96771 Date Analyzed: 2012-11-20 Analyzed By: AK  
 Prep Batch: 82031 Sample Preparation: 2012-11-20 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N		2	<b>168</b>	<b>168</b>	<8.60	mg/L	5	8.60	10	1.72

## Method Blanks

### Method Blank (1)

QC Batch: 96729  
Prep Batch: 81995Date Analyzed: 2012-11-13  
QC Preparation: 2012-11-13Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 96771  
Prep Batch: 82031Date Analyzed: 2012-11-20  
QC Preparation: 2012-11-20Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.72	mg/L	1.72

### Method Blank (1)

QC Batch: 96879  
Prep Batch: 82123Date Analyzed: 2012-11-13  
QC Preparation: 2012-11-13Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

### Method Blank (1)

QC Batch: 96879  
Prep Batch: 82123Date Analyzed: 2012-11-13  
QC Preparation: 2012-11-13Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

**Method Blank (1)**

QC Batch: 96880                                      Date Analyzed: 2012-11-13                                      Analyzed By: JR  
Prep Batch: 82124                                      QC Preparation: 2012-11-13                                      Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

**Method Blank (1)**

QC Batch: 96880                                      Date Analyzed: 2012-11-13                                      Analyzed By: JR  
Prep Batch: 82124                                      QC Preparation: 2012-11-13                                      Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

**Duplicate (2)**    Duplicated Sample: 313978

QC Batch: 96729                                      Date Analyzed: 2012-11-13                                      Analyzed By: DL  
Prep Batch: 81995                                      QC Preparation: 2012-11-13                                      Prepared By: DL

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	4060	3840	mg/L	1	6	10
Total Dissolved Solids		1	4060	3250	mg/L	1	6	10

# Laboratory Control Spikes

## Laboratory Control Spike (LCS-2)

QC Batch: 96729  
Prep Batch: 81995Date Analyzed: 2012-11-13  
QC Preparation: 2012-11-13Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	982	mg/L	1	1000	<5.00	98	90 - 110

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	996	mg/L	1	1000	<5.00	100	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: 96879  
Prep Batch: 82123Date Analyzed: 2012-11-13  
QC Preparation: 2012-11-13Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	23.8	mg/L	1	25.0	<0.209	95	90 - 110

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	23.8	mg/L	1	25.0	<0.209	95	90 - 110	0	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: 96879  
Prep Batch: 82123Date Analyzed: 2012-11-13  
QC Preparation: 2012-11-13Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	4.75	mg/L	1	5.00	<0.00580	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		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	4.73	mg/L	1	5.00	<0.00580	95	90 - 110	0	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: 96880  
Prep Batch: 82124

Date Analyzed: 2012-11-13  
QC Preparation: 2012-11-13

Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	23.6	mg/L	1	25.0	<0.209	94	90 - 110

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

Param	F	C	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	23.3	mg/L	1	25.0	<0.209	93	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: 96880  
Prep Batch: 82124

Date Analyzed: 2012-11-13  
QC Preparation: 2012-11-13

Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	4.70	mg/L	1	5.00	<0.00580	94	90 - 110

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

Param	F	C	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	4.70	mg/L	1	5.00	<0.00580	94	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: 314067

QC Batch: 96771  
Prep Batch: 82031

Date Analyzed: 2012-11-20  
QC Preparation: 2012-11-20

Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	33.6	mg/L	1	50.0	<1.72	67	10 - 151

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. Limit	RPD	RPD Limit	
Total Kjeldahl Nitrogen - N		2	35.7	mg/L	1	50.0	<1.72	71	10 - 151	6	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: 313977

QC Batch: 96879 Date Analyzed: 2012-11-13 Analyzed By: JR  
Prep Batch: 82123 QC Preparation: 2012-11-13 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	1850	mg/L	55.6	1390	440	101	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. Limit	RPD	RPD Limit	
Chloride		1	1850	mg/L	55.6	1390	440	101	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: 313977

QC Batch: 96879 Date Analyzed: 2012-11-13 Analyzed By: JR  
Prep Batch: 82123 QC Preparation: 2012-11-13 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	270	mg/L	55.6	278	4.82	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. Limit	RPD	RPD Limit	
Nitrate-N		1	270	mg/L	55.6	278	4.82	95	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: 313978

QC Batch: 96880 Date Analyzed: 2012-11-13 Analyzed By: JR  
Prep Batch: 82124 QC Preparation: 2012-11-13 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	2570	mg/L	55.6	1390	1060	109	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	2560	mg/L	55.6	1390	1060	108	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: 313978

QC Batch: 96880 Date Analyzed: 2012-11-13 Analyzed By: JR  
Prep Batch: 82124 QC Preparation: 2012-11-13 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	293	mg/L	55.6	278	28.3	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
Nitrate-N		1	292	mg/L	55.6	278	28.3	95	90 - 110	0	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: 96771

Date Analyzed: 2012-11-20

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.76	95	85 - 115	2012-11-20

### Standard (CCV-1)

QC Batch: 96771

Date Analyzed: 2012-11-20

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.90	98	85 - 115	2012-11-20

### Standard (CCV-1)

QC Batch: 96879

Date Analyzed: 2012-11-13

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.4	98	90 - 110	2012-11-13

### Standard (CCV-1)

QC Batch: 96879

Date Analyzed: 2012-11-13

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.76	95	90 - 110	2012-11-13

**Standard (CCV-2)**

QC Batch: 96879 Date Analyzed: 2012-11-13 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.8	95	90 - 110	2012-11-13

**Standard (CCV-2)**

QC Batch: 96879 Date Analyzed: 2012-11-13 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.73	95	90 - 110	2012-11-13

**Standard (CCV-1)**

QC Batch: 96880 Date Analyzed: 2012-11-13 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.8	95	90 - 110	2012-11-13

**Standard (CCV-1)**

QC Batch: 96880 Date Analyzed: 2012-11-13 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.73	95	90 - 110	2012-11-13

**Standard (CCV-2)**

QC Batch: 96880 Date Analyzed: 2012-11-13 Analyzed By: JR

Report Date: November 27, 2012

Work Order: 12111218  
Dominguez Dairy #1

Page Number: 19 of 22  
13950 Stern Dr., Mesquite, NM

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Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.7	95	90 - 110	2012-11-13

---

**Standard (CCV-2)**

QC Batch: 96880

Date Analyzed: 2012-11-13

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.71	94	90 - 110	2012-11-13

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## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.00	-
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.00	-
TKN	E 351.3	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

---

# 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	T104704221-12-3	El Paso
2	NELAP	T104704219-12-8	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 than 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

## Result Comments

- 1 Sample 313940 is a dilution of 10ml into 100ml
- 2 Sample 313940 is a dilution of 10ml into 100ml
- 3 Sample 313940 is a dilution of 10ml into 100ml
- 4 Sample 313940 is a dilution of 10ml into 100ml
- 5 Sample 313940 is a dilution of 10ml into 100ml

## **Attachments**

The scanned attachments will follow this page.

Please note, each attachment may consist of more than one page.





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 915-585-3443 FAX 915-585-4944  
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 (BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Joe Gonzalez  
 Gonzalez Dairy  
 14310 Stern Drive  
 P.O. Box 199  
 Mesquite, NM, 88048

Report Date: November 27, 2012

Work Order: 12111322



DP: 177  
 Project Location: 14310 Stern Dr., Mesquite, NM  
 Project Name: Gonzalez Dairy Inc.

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
314063	177-01	water	2012-11-13	15:10	2012-11-13
314064	177-02	water	2012-11-13	14:37	2012-11-13
314065	177-03	water	2012-11-13	10:55	2012-11-13
314066	177-04	water	2012-11-13	09:59	2012-11-13
314067	177-05	water	2012-11-13	08:47	2012-11-13
314068	177-06	water	2012-11-13	07:38	2012-11-13
314069	177-07R	water	2012-11-13	12:34	2012-11-13
314070	177 Lagoon 1	water	2012-11-13	13:41	2012-11-13

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 30 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

**Notes:**

*For inorganic analyses, the term MQL should actually read PQL.*



*Michael Abel*

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

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## Case Narrative

Samples for project Gonzalez Dairy Inc. were received by TraceAnalysis, Inc. on 2012-11-13 and assigned to work order 12111322. Samples for work order 12111322 were received intact at a temperature of 0.0 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	82125	2012-11-14 at 00:37	96881	2012-11-14 at 00:37
Chloride (IC)	E 300.0	82126	2012-11-14 at 04:49	96882	2012-11-14 at 04:49
Chloride (IC)	E 300.0	82127	2012-11-14 at 09:02	96883	2012-11-14 at 09:02
NO3 (IC)	E 300.0	82125	2012-11-14 at 00:37	96881	2012-11-14 at 00:37
NO3 (IC)	E 300.0	82126	2012-11-14 at 04:49	96882	2012-11-14 at 04:49
NO3 (IC)	E 300.0	82127	2012-11-14 at 09:02	96883	2012-11-14 at 09:02
TDS	SM 2540C	82072	2012-11-16 at 10:00	96816	2012-11-16 at 10:00
TKN	E 351.3	82031	2012-11-20 at 10:30	96771	2012-11-20 at 14:45
TKN	E 351.3	82034	2012-11-20 at 10:30	96775	2012-11-20 at 15:00

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 12111322 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: 314063 - 177-01**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96881 Date Analyzed: 2012-11-14 Analyzed By: JR  
 Prep Batch: 82125 Sample Preparation: 2012-11-14 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Chloride		1	<b>1190</b>	<b>1190</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 314063 - 177-01**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96881 Date Analyzed: 2012-11-14 Analyzed By: JR  
 Prep Batch: 82125 Sample Preparation: 2012-11-14 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>27.7</b>	<b>27.7</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 314063 - 177-01**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96816 Date Analyzed: 2012-11-16 Analyzed By: DL  
 Prep Batch: 82072 Sample Preparation: 2012-11-16 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3780</b>	<b>3780</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314063 - 177-01**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96771 Date Analyzed: 2012-11-20 Analyzed By: AK  
 Prep Batch: 82031 Sample Preparation: 2012-11-20 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314064 - 177-02**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96881 Date Analyzed: 2012-11-14 Analyzed By: JR  
 Prep Batch: 82125 Sample Preparation: 2012-11-14 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>870</b>	<b>870</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 314064 - 177-02**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96881 Date Analyzed: 2012-11-14 Analyzed By: JR  
 Prep Batch: 82125 Sample Preparation: 2012-11-14 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>35.8</b>	<b>35.8</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 314064 - 177-02**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96816 Date Analyzed: 2012-11-16 Analyzed By: DL  
 Prep Batch: 82072 Sample Preparation: 2012-11-16 Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3320</b>	<b>3320</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314064 - 177-02**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96771 Date Analyzed: 2012-11-20 Analyzed By: AK  
 Prep Batch: 82031 Sample Preparation: 2012-11-20 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314065 - 177-03**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96881 Date Analyzed: 2012-11-14 Analyzed By: JR  
 Prep Batch: 82125 Sample Preparation: 2012-11-14 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>1150</b>	<b>1150</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 314065 - 177-03**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96882 Date Analyzed: 2012-11-14 Analyzed By: JR  
 Prep Batch: 82126 Sample Preparation: 2012-11-14 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>12.2</b>	<b>12.2</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 314065 - 177-03**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96816 Date Analyzed: 2012-11-16 Analyzed By: DL  
 Prep Batch: 82072 Sample Preparation: 2012-11-16 Prepared By: DL

*continued . . .*

*sample 314065 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>3900</b>	<b>3900</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314065 - 177-03**

Laboratory: Lubbock

Analysis: TKN

QC Batch: 96771

Prep Batch: 82031

Analytical Method: E 351.3

Date Analyzed: 2012-11-20

Sample Preparation: 2012-11-20

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314066 - 177-04**

Laboratory: El Paso

Analysis: Chloride (IC)

QC Batch: 96882

Prep Batch: 82126

Analytical Method: E 300.0

Date Analyzed: 2012-11-14

Sample Preparation: 2012-11-14

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>1070</b>	<b>1070</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 314066 - 177-04**

Laboratory: El Paso

Analysis: NO3 (IC)

QC Batch: 96882

Prep Batch: 82126

Analytical Method: E 300.0

Date Analyzed: 2012-11-14

Sample Preparation: 2012-11-14

Prep Method: N/A

Analyzed By: JR

Prepared By: JR



Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>22.3</b>	<b>22.3</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 314066 - 177-04**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96816 Date Analyzed: 2012-11-16 Analyzed By: DL  
 Prep Batch: 82072 Sample Preparation: 2012-11-16 Prepared By: DL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>3630</b>	<b>3630</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314066 - 177-04**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96771 Date Analyzed: 2012-11-20 Analyzed By: AK  
 Prep Batch: 82031 Sample Preparation: 2012-11-20 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314067 - 177-05**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96882 Date Analyzed: 2012-11-14 Analyzed By: JR  
 Prep Batch: 82126 Sample Preparation: 2012-11-14 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>1240</b>	<b>1240</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 314067 - 177-05**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96882 Date Analyzed: 2012-11-14 Analyzed By: JR  
 Prep Batch: 82126 Sample Preparation: 2012-11-14 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>37.1</b>	<b>37.1</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 314067 - 177-05**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96816 Date Analyzed: 2012-11-16 Analyzed By: DL  
 Prep Batch: 82072 Sample Preparation: 2012-11-16 Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>4050</b>	<b>4050</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314067 - 177-05**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96771 Date Analyzed: 2012-11-20 Analyzed By: AK  
 Prep Batch: 82031 Sample Preparation: 2012-11-20 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314068 - 177-06**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96882 Date Analyzed: 2012-11-14 Analyzed By: JR  
 Prep Batch: 82126 Sample Preparation: 2012-11-14 Prepared By: JR

*continued ...*

*sample 314068 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>918</b>	<b>918</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 314068 - 177-06**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96883 Date Analyzed: 2012-11-14 Analyzed By: JR  
 Prep Batch: 82127 Sample Preparation: 2012-11-14 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>16.1</b>	<b>16.1</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 314068 - 177-06**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96816 Date Analyzed: 2012-11-16 Analyzed By: DL  
 Prep Batch: 82072 Sample Preparation: 2012-11-16 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>3020</b>	<b>3020</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314068 - 177-06**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96775 Date Analyzed: 2012-11-20 Analyzed By: AK  
 Prep Batch: 82034 Sample Preparation: 2012-11-20 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314069 - 177-07R**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96883 Date Analyzed: 2012-11-14 Analyzed By: JR  
 Prep Batch: 82127 Sample Preparation: 2012-11-14 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>1040</b>	<b>1040</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 314069 - 177-07R**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96883 Date Analyzed: 2012-11-14 Analyzed By: JR  
 Prep Batch: 82127 Sample Preparation: 2012-11-14 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>31.0</b>	<b>31.0</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 314069 - 177-07R**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96816 Date Analyzed: 2012-11-16 Analyzed By: DL  
 Prep Batch: 82072 Sample Preparation: 2012-11-16 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>3570</b>	<b>3570</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314069 - 177-07R**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96775 Date Analyzed: 2012-11-20 Analyzed By: AK  
 Prep Batch: 82034 Sample Preparation: 2012-11-20 Prepared By: AK

*continued ...*

sample 314069 continued ...

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314070 - 177 Lagoon 1**

Laboratory: El Paso  
 Analysis: Chloride (IC)                      Analytical Method: E 300.0                      Prep Method: N/A  
 QC Batch: 96883                                  Date Analyzed: 2012-11-14                      Analyzed By: JR  
 Prep Batch: 82127                                  Sample Preparation: 2012-11-14                      Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>9330</b>	<b>9330</b>	<104	mg/L	500	104	2.5	0.209

**Sample: 314070 - 177 Lagoon 1**

Laboratory: El Paso  
 Analysis: NO3 (IC)                                  Analytical Method: E 300.0                      Prep Method: N/A  
 QC Batch: 96883                                  Date Analyzed: 2012-11-14                      Analyzed By: JR  
 Prep Batch: 82127                                  Sample Preparation: 2012-11-14                      Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	u	1	<0.0580	<5.00	<0.0580	mg/L	10	0.0580	0.5	0.0058

**Sample: 314070 - 177 Lagoon 1**

Laboratory: El Paso  
 Analysis: TDS    Analytical Method: SM 2540C                      Prep Method: N/A  
 QC Batch: 96816                                  Date Analyzed: 2012-11-16                      Analyzed By: DL  
 Prep Batch: 82072                                  Sample Preparation: 2012-11-16                      Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>59500</b>	<b>59500</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314070 - 177 Lagoon 1**

Laboratory: Lubbock

Analysis: TKN

QC Batch: 96775

Prep Batch: 82034

Analytical Method: E 351.3

Date Analyzed: 2012-11-20

Sample Preparation: 2012-11-20

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N		2	<b>256</b>	<b>256</b>	<8.60	mg/L	5	8.60	10	1.72

## Method Blanks

### Method Blank (1)

QC Batch: 96771  
Prep Batch: 82031Date Analyzed: 2012-11-20  
QC Preparation: 2012-11-20Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.72	mg/L	1.72

### Method Blank (1)

QC Batch: 96775  
Prep Batch: 82034Date Analyzed: 2012-11-20  
QC Preparation: 2012-11-20Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.72	mg/L	1.72

### Method Blank (1)

QC Batch: 96816  
Prep Batch: 82072Date Analyzed: 2012-11-16  
QC Preparation: 2012-11-16Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 96881  
Prep Batch: 82125Date Analyzed: 2012-11-14  
QC Preparation: 2012-11-14Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

---

**Method Blank (1)**QC Batch: 96881  
Prep Batch: 82125Date Analyzed: 2012-11-14  
QC Preparation: 2012-11-14Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

---

**Method Blank (1)**QC Batch: 96882  
Prep Batch: 82126Date Analyzed: 2012-11-14  
QC Preparation: 2012-11-14Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

---

**Method Blank (1)**QC Batch: 96882  
Prep Batch: 82126Date Analyzed: 2012-11-14  
QC Preparation: 2012-11-14Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

---

**Method Blank (1)**QC Batch: 96883  
Prep Batch: 82127Date Analyzed: 2012-11-14  
QC Preparation: 2012-11-14Analyzed By: JR  
Prepared By: JR



Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

**Method Blank (1)**

QC Batch: 96883  
Prep Batch: 82127

Date Analyzed: 2012-11-14  
QC Preparation: 2012-11-14

Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

**Duplicate (1)** Duplicated Sample: 314065

QC Batch: 96816  
Prep Batch: 82072

Date Analyzed: 2012-11-16  
QC Preparation: 2012-11-16

Analyzed By: DL  
Prepared By: DL

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	3970	3900	mg/L	1	2	10

# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 96816  
Prep Batch: 82072Date Analyzed: 2012-11-16  
QC Preparation: 2012-11-16Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	994	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	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	998	mg/L	1	1000	<5.00	100	90 - 110	0	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: 96881  
Prep Batch: 82125Date Analyzed: 2012-11-14  
QC Preparation: 2012-11-14Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	24.1	mg/L	1	25.0	<0.209	96	90 - 110

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	24.1	mg/L	1	25.0	<0.209	96	90 - 110	0	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: 96881  
Prep Batch: 82125Date Analyzed: 2012-11-14  
QC Preparation: 2012-11-14Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	4.79	mg/L	1	5.00	<0.00580	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		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	4.80	mg/L	1	5.00	<0.00580	96	90 - 110	0	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: 96882  
Prep Batch: 82126

Date Analyzed: 2012-11-14  
QC Preparation: 2012-11-14

Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	24.0	mg/L	1	25.0	<0.209	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		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	24.1	mg/L	1	25.0	<0.209	96	90 - 110	0	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: 96882  
Prep Batch: 82126

Date Analyzed: 2012-11-14  
QC Preparation: 2012-11-14

Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	4.77	mg/L	1	5.00	<0.00580	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		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	4.79	mg/L	1	5.00	<0.00580	96	90 - 110	0	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: 96883  
Prep Batch: 82127

Date Analyzed: 2012-11-14  
QC Preparation: 2012-11-14

Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	24.0	mg/L	1	25.0	<0.209	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	<0.209	96	90 - 110	0	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: 96883  
Prep Batch: 82127

Date Analyzed: 2012-11-14  
QC Preparation: 2012-11-14

Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	4.76	mg/L	1	5.00	<0.00580	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
Nitrate-N		1	4.78	mg/L	1	5.00	<0.00580	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: 314067

QC Batch: 96771  
Prep Batch: 82031

Date Analyzed: 2012-11-20  
QC Preparation: 2012-11-20

Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	33.6	mg/L	1	50.0	<1.72	67	10 - 151

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
Total Kjeldahl Nitrogen - N		2	35.7	mg/L	1	50.0	<1.72	71	10 - 151	6	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: 314180QC Batch: 96775  
Prep Batch: 82034Date Analyzed: 2012-11-20  
QC Preparation: 2012-11-20Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	39.9	mg/L	1	50.0	<1.72	80	10 - 151

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
Total Kjeldahl Nitrogen - N		2	39.2	mg/L	1	50.0	<1.72	78	10 - 151	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: 314064QC Batch: 96881  
Prep Batch: 82125Date Analyzed: 2012-11-14  
QC Preparation: 2012-11-14Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	2360	mg/L	55.6	1390	870	107	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	2360	mg/L	55.6	1390	870	107	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: 314064QC Batch: 96881  
Prep Batch: 82125Date Analyzed: 2012-11-14  
QC Preparation: 2012-11-14Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	305	mg/L	55.6	278	35.8	97	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
Nitrate-N		1	305	mg/L	55.6	278	35.8	97	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: 314068

QC Batch: 96882  
Prep Batch: 82126

Date Analyzed: 2012-11-14  
QC Preparation: 2012-11-14

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	2410	mg/L	55.6	1390	918	107	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	2410	mg/L	55.6	1390	918	107	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: 314068

QC Batch: 96882  
Prep Batch: 82126

Date Analyzed: 2012-11-14  
QC Preparation: 2012-11-14

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	283	mg/L	55.6	278	16.6	96	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
Nitrate-N		1	284	mg/L	55.6	278	16.6	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: 314069

QC Batch: 96883  
Prep Batch: 82127

Date Analyzed: 2012-11-14  
QC Preparation: 2012-11-14

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	2560	mg/L	55.6	1390	1040	109	90 - 110

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

Param	F	C	MSD		Dil.	Spike	Matrix	Rec.		RPD	
			Result	Units		Amount	Result	Rec.	Limit	RPD	Limit
Chloride		1	2550	mg/L	55.6	1390	1040	109	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: 314069

QC Batch: 96883  
Prep Batch: 82127

Date Analyzed: 2012-11-14  
QC Preparation: 2012-11-14

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike	Matrix	Rec.		RPD	
			Result	Units		Amount	Result	Rec.	Limit	RPD	Limit
Nitrate-N		1	300	mg/L	55.6	278	31	97	90 - 110		

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

Param	F	C	MSD		Dil.	Spike	Matrix	Rec.		RPD	
			Result	Units		Amount	Result	Rec.	Limit	RPD	Limit
Nitrate-N		1	298	mg/L	55.6	278	31	96	90 - 110	1	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: 96771

Date Analyzed: 2012-11-20

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.76	95	85 - 115	2012-11-20

### Standard (CCV-1)

QC Batch: 96771

Date Analyzed: 2012-11-20

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.90	98	85 - 115	2012-11-20

### Standard (ICV-1)

QC Batch: 96775

Date Analyzed: 2012-11-20

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.90	98	85 - 115	2012-11-20

### Standard (CCV-1)

QC Batch: 96775

Date Analyzed: 2012-11-20

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	5.04	101	85 - 115	2012-11-20



**Standard (CCV-1)**

QC Batch: 96881

Date Analyzed: 2012-11-14

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.7	95	90 - 110	2012-11-14

**Standard (CCV-1)**

QC Batch: 96881

Date Analyzed: 2012-11-14

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.71	94	90 - 110	2012-11-14

**Standard (CCV-2)**

QC Batch: 96881

Date Analyzed: 2012-11-14

Analyzed By: JR

Param	F	C	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	2012-11-14

**Standard (CCV-2)**

QC Batch: 96881

Date Analyzed: 2012-11-14

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.66	93	90 - 110	2012-11-14

**Standard (CCV-1)**

QC Batch: 96882

Date Analyzed: 2012-11-14

Analyzed By: JR

Param	F	C	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	2012-11-14

**Standard (CCV-1)**

QC Batch: 96882

Date Analyzed: 2012-11-14

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.66	93	90 - 110	2012-11-14

**Standard (CCV-2)**

QC Batch: 96882

Date Analyzed: 2012-11-14

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.5	94	90 - 110	2012-11-14

**Standard (CCV-2)**

QC Batch: 96882

Date Analyzed: 2012-11-14

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.66	93	90 - 110	2012-11-14

**Standard (CCV-1)**

QC Batch: 96883

Date Analyzed: 2012-11-14

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.5	94	90 - 110	2012-11-14

**Standard (CCV-1)**

QC Batch: 96883

Date Analyzed: 2012-11-14

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.66	93	90 - 110	2012-11-14

**Standard (CCV-2)**

QC Batch: 96883

Date Analyzed: 2012-11-14

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.5	94	90 - 110	2012-11-14

**Standard (CCV-2)**

QC Batch: 96883

Date Analyzed: 2012-11-14

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.66	93	90 - 110	2012-11-14

---

## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.00	-
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.00	-
TKN	E 351.3	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

---

# 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	T104704221-12-3	El Paso
2	NELAP	T104704219-12-8	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 than 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.

Company Name: D&H Petroleum & Environmental Services  
 Address: (Street, City, Zip) 1221 Tower Trail Ln, El Paso TX 79907  
 Contact Person: Victor Ayala  
 Phone #: 915-859-8150  
 Cell #: vajalala@dhpump.com  
 Fax #:   
 E-mail:

Project #: 401372  
 Project Name: Joe Gonzalez 575-233-4801  
 Project Location (including state): Gonzalez Dairy, 14310 Stern Dr., Mesquite, NM  
 Sampler Signature: [Signature]  
 Project Location (including state): Gonzalez Dairy, 14310 Stern Dr., Mesquite, NM

LAB #	Field Code	# Containers	Volume/Amount	MATRIX			PRESERVATIVE METHOD				SAMPLING		TIME	Hold	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE			NONE
314063-1	177-01	1	250ml	X				X					11-13-12	15:10	
314063-2	177-01	2	250ml	X				X					11-13-12	15:10	
314064-1	177-02	1	250ml	X				X					11-13-12	14:37	
314064-2	177-02	2	250ml	X				X					11-13-12	10:55	
314065-1	177-03	1	250ml	X				X					11-13-12	10:55	
314065-2	177-03	2	250ml	X				X					11-13-12	9:59	
314066-1	177-04	1	250ml	X				X					11-13-12	9:59	
314066-2	177-04	2	250ml	X				X					11-13-12	8:47	
314067-1	177-05	1	250ml	X				X					11-13-12	8:47	
314067-2	177-05	2	250ml	X				X					11-13-12	7:38	
314068-1	177-06	1	250ml	X				X					11-13-12	7:38	
314068-2	177-06	2	250ml	X				X					11-13-12	12:34	
314069-1	177-07 R	1	250ml	X				X					11-13-12	12:34	
314069-2	177-07 R	2	250ml	X				X					11-13-12	13:41	
314070-1	177 Lagoon 1	1	250ml	X				X					11-13-12	13:41	
314070-2	177 Lagoon 1	2	250ml	X				X					11-13-12	13:41	

ANALYSIS REQUEST

TX 1005 Extended (C35)  
 TPH 418.1 / TX1005  
 BTX 8021B/602  
 MTBE 8021B/602

PAH 8270 (Low Level Analysis)  
 PAH 8270C  
 Total Metals Ag As BA Cd Cr Pb Se Hg 6010B/200.7  
 Nitrates EPA 300  
 TKN SM 4500 NORG C  
 Chloride EPA 300  
 Total Dissolved Solids SM 2540 C MOD

Lab Use Only  
 Intact  / N  
 Headspace Y / N  
 Temp 9.0 / 9.0  
 Log-in Review [Signature]

Relinquished By: [Signature] Date: 11-13-12 Time: 15:47  
 Relinquished By: [Signature] Date: 11-13-12 Time: 16:30

Received By: [Signature] Date: 11-13-12 Time: 15:47  
 Received at Laboratory: [Signature] Date: 11-13-12 Time: 9:16

Remarks: C1, NO3, TDS 1235.91  
48542007  
 Dry Weight Basis Required   
 TRRP Report Required

8103

11-13-12



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 915-585-3443 FAX 915-585-4944  
 5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
 (BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

George Segura  
 Big Sky Dairy  
 17800 Stern Drive  
 P.O. Box 10  
 Mesquite, NM, 88048

Report Date: December 5, 2012

Work Order: 12111921



DP: 833  
 Project Location: 17800 Stern Drive, Mesquite, NM 88048  
 Project Name: Big Sky Dairy

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
314638	833-2	water	2012-11-19	12:40	2012-11-19
314639	833-4	water	2012-11-19	13:52	2012-11-19
314640	833-6	water	2012-11-19	14:49	2012-11-19

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 22 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

**Notes:**

*For inorganic analyses, the term MQL should actually read PQL.*

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

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## Case Narrative

Samples for project Big Sky Dairy were received by TraceAnalysis, Inc. on 2012-11-19 and assigned to work order 12111921. Samples for work order 12111921 were received intact at a temperature of 2.0 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	82076	2012-11-20 at 09:00	96822	2012-11-20 at 09:30
Chloride (IC)	E 300.0	82323	2012-11-20 at 15:17	97127	2012-11-20 at 15:17
NO3 (IC)	E 300.0	82076	2012-11-20 at 09:00	96822	2012-11-20 at 09:30
NO3 (IC)	E 300.0	82323	2012-11-20 at 15:17	97127	2012-11-20 at 15:17
TDS	SM 2540C	82037	2012-11-21 at 16:00	97005	2012-11-21 at 15:00
TDS	SM 2540C	82141	2012-11-23 at 11:30	96899	2012-11-23 at 11:30
TKN	E 351.3	82082	2012-11-26 at 09:10	96850	2012-11-26 at 13:10
TKN	E 351.3	82149	2012-11-26 at 03:15	96908	2012-11-26 at 05:00

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 12111921 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: 314638 - 833-2**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97127 Date Analyzed: 2012-11-20 Analyzed By: JR  
 Prep Batch: 82323 Sample Preparation: 2012-11-20 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>1030</b>	<b>1030</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 314638 - 833-2**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97127 Date Analyzed: 2012-11-20 Analyzed By: JR  
 Prep Batch: 82323 Sample Preparation: 2012-11-20 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>84.3</b>	<b>84.3</b>	<0.0580	mg/L	10	0.0580	0.5	0.0058

**Sample: 314638 - 833-2**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96899 Date Analyzed: 2012-11-23 Analyzed By: DL  
 Prep Batch: 82141 Sample Preparation: 2012-11-23 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>4020</b>	<b>4020</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314638 - 833-2**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96850 Date Analyzed: 2012-11-26 Analyzed By: AK  
 Prep Batch: 82082 Sample Preparation: 2012-11-26 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	J	2	<b>2.10</b>	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314639 - 833-4**

Laboratory: El Paso  
 Analysis: Chloride (IC)      Analytical Method: E 300.0      Prep Method: N/A  
 QC Batch: 97127      Date Analyzed: 2012-11-20      Analyzed By: JR  
 Prep Batch: 82323      Sample Preparation: 2012-11-20      Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>1010</b>	<b>1010</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 314639 - 833-4**

Laboratory: El Paso  
 Analysis: NO3 (IC)      Analytical Method: E 300.0      Prep Method: N/A  
 QC Batch: 97127      Date Analyzed: 2012-11-20      Analyzed By: JR  
 Prep Batch: 82323      Sample Preparation: 2012-11-20      Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>50.0</b>	<b>50.0</b>	<0.0580	mg/L	10	0.0580	0.5	0.0058

**Sample: 314639 - 833-4**

Laboratory: El Paso  
 Analysis: TDS      Analytical Method: SM 2540C      Prep Method: N/A  
 QC Batch: 96899      Date Analyzed: 2012-11-23      Analyzed By: DL  
 Prep Batch: 82141      Sample Preparation: 2012-11-23      Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3770</b>	<b>3770</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314639 - 833-4**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96908 Date Analyzed: 2012-11-26 Analyzed By: AK  
 Prep Batch: 82149 Sample Preparation: 2012-11-26 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314640 - 833-6**

Laboratory: Lubbock  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96822 Date Analyzed: 2012-11-20 Analyzed By: RL  
 Prep Batch: 82076 Sample Preparation: 2012-11-20 Prepared By: RL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		2	<b>920</b>	<b>920</b>	<20.9	mg/L	100	20.9	2.5	0.209

**Sample: 314640 - 833-6**

Laboratory: Lubbock  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96822 Date Analyzed: 2012-11-20 Analyzed By: RL  
 Prep Batch: 82076 Sample Preparation: 2012-11-20 Prepared By: RL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		2	<b>24.2</b>	<b>24.2</b>	<0.0595	mg/L	5	0.0595	0.04	0.0119

**Sample: 314640 - 833-6**

Laboratory: Lubbock  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97005 Date Analyzed: 2012-11-21 Analyzed By: RL  
 Prep Batch: 82037 Sample Preparation: 2012-11-21 Prepared By: RL

*continued . . .*

sample 314640 continued ...

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		2	<b>2840</b>	<b>2840</b>	<5.000	mg/L	1	5.000	10	5

**Sample: 314640 - 833-6**

Laboratory: Lubbock  
Analysis: TKN  
QC Batch: 96908  
Prep Batch: 82149

Analytical Method: E 351.3  
Date Analyzed: 2012-11-26  
Sample Preparation: 2012-11-26

Prep Method: N/A  
Analyzed By: AK  
Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

## Method Blanks

### Method Blank (1)

QC Batch: 96822  
Prep Batch: 82076Date Analyzed: 2012-11-20  
QC Preparation: 2012-11-20Analyzed By: RL  
Prepared By: RL

Parameter	F	C	Result	Units	Reporting Limits
Chloride		2	<0.209	mg/L	0.209

### Method Blank (1)

QC Batch: 96822  
Prep Batch: 82076Date Analyzed: 2012-11-20  
QC Preparation: 2012-11-20Analyzed By: RL  
Prepared By: RL

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		2	<0.0119	mg/L	0.0119

### Method Blank (1)

QC Batch: 96850  
Prep Batch: 82082Date Analyzed: 2012-11-26  
QC Preparation: 2012-11-26Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.72	mg/L	1.72

### Method Blank (1)

QC Batch: 96899  
Prep Batch: 82141Date Analyzed: 2012-11-23  
QC Preparation: 2012-11-23Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

**Method Blank (1)**QC Batch: 96908  
Prep Batch: 82149Date Analyzed: 2012-11-26  
QC Preparation: 2012-11-26Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.72	mg/L	1.72

**Method Blank (1)**QC Batch: 97005  
Prep Batch: 82037Date Analyzed: 2012-11-21  
QC Preparation: 2012-11-21Analyzed By: RL  
Prepared By: RL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		2	<5.000	mg/L	5

**Method Blank (1)**QC Batch: 97127  
Prep Batch: 82323Date Analyzed: 2012-11-20  
QC Preparation: 2012-11-20Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

**Method Blank (1)**QC Batch: 97127  
Prep Batch: 82323Date Analyzed: 2012-11-20  
QC Preparation: 2012-11-20Analyzed By: JR  
Prepared By: JR



Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

**Duplicate (1)** Duplicated Sample: 314782

QC Batch: 96899 Date Analyzed: 2012-11-23 Analyzed By: DL  
 Prep Batch: 82141 QC Preparation: 2012-11-23 Prepared By: DL

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	3580	3580	mg/L	1	0	10

**Duplicate (1)** Duplicated Sample: 314874

QC Batch: 97005 Date Analyzed: 2012-11-21 Analyzed By: RL  
 Prep Batch: 82037 QC Preparation: 2012-11-21 Prepared By: RL

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		2	4910	4850	mg/L	1	1	10

# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 96822  
Prep Batch: 82076Date Analyzed: 2012-11-20  
QC Preparation: 2012-11-20Analyzed By: RL  
Prepared By: RL

Param	F	C	LCS			Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units	Dil.				
Chloride		2	24.0	mg/L	1	25.0	<0.209	96	90 - 110

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

Param	F	C	LCS			Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units	Dil.						
Chloride		2	23.8	mg/L	1	25.0	<0.209	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: 96822  
Prep Batch: 82076Date Analyzed: 2012-11-20  
QC Preparation: 2012-11-20Analyzed By: RL  
Prepared By: RL

Param	F	C	LCS			Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units	Dil.				
Nitrate-N		2	4.97	mg/L	1	5.00	<0.0119	99	90 - 110

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

Param	F	C	LCS			Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units	Dil.						
Nitrate-N		2	5.00	mg/L	1	5.00	<0.0119	100	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: 96899  
Prep Batch: 82141Date Analyzed: 2012-11-23  
QC Preparation: 2012-11-23Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS			Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units	Dil.				
Total Dissolved Solids		1	997	mg/L	1	1000	<5.00	100	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.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	998	mg/L	1	1000	<5.00	100	90 - 110	0	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: 97005  
Prep Batch: 82037

Date Analyzed: 2012-11-21  
QC Preparation: 2012-11-21

Analyzed By: RL  
Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		2	985	mg/L	1	1000	<5.00	98	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		2	992	mg/L	1	1000	<5.00	99	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: 97127  
Prep Batch: 82323

Date Analyzed: 2012-11-20  
QC Preparation: 2012-11-20

Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	23.3	mg/L	1	25.0	<0.209	93	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	23.7	mg/L	1	25.0	<0.209	95	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: 97127  
Prep Batch: 82323

Date Analyzed: 2012-11-20  
QC Preparation: 2012-11-20

Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	4.69	mg/L	1	5.00	<0.00580	94	90 - 110

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Nitrate-N		1	4.72	mg/L	1	5.00	<0.00580	94	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: 314354

QC Batch: 96822  
Prep Batch: 82076

Date Analyzed: 2012-11-20  
QC Preparation: 2012-11-20

Analyzed By: RL  
Prepared By: RL

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		2	202	mg/L	5	125	76.3	100	80 - 120

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

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		2	203	mg/L	5	125	76.3	101	80 - 120	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: 314354

QC Batch: 96822  
Prep Batch: 82076

Date Analyzed: 2012-11-20  
QC Preparation: 2012-11-20

Analyzed By: RL  
Prepared By: RL

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		2	25.0	mg/L	5	25.0	2.62	90	80 - 120

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

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Nitrate-N		2	25.1	mg/L	5	25.0	2.62	90	80 - 120	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: 314638QC Batch: 96850  
Prep Batch: 82082Date Analyzed: 2012-11-26  
QC Preparation: 2012-11-26Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	42.0	mg/L	1	50.0	2.1	80	10 - 151

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
Total Kjeldahl Nitrogen - N		2	43.4	mg/L	1	50.0	2.1	83	10 - 151	3	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: 314643QC Batch: 96908  
Prep Batch: 82149Date Analyzed: 2012-11-26  
QC Preparation: 2012-11-26Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	39.2	mg/L	1	50.0	<1.72	78	10 - 151

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
Total Kjeldahl Nitrogen - N		2	39.9	mg/L	1	50.0	<1.72	80	10 - 151	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: 314641QC Batch: 97127  
Prep Batch: 82323Date Analyzed: 2012-11-20  
QC Preparation: 2012-11-20Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	3450	mg/L	111	2780	718	98	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	3450	mg/L	111	2780	718	98	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: 314641

QC Batch: 97127  
Prep Batch: 82323

Date Analyzed: 2012-11-20  
QC Preparation: 2012-11-20

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	549	mg/L	111	555	29.1	94	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
Nitrate-N		1	548	mg/L	111	555	29.1	93	90 - 110	0	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: 96822

Date Analyzed: 2012-11-20

Analyzed By: RL

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		2	mg/L	25.0	23.0	92	90 - 110	2012-11-20

### Standard (CCV-1)

QC Batch: 96822

Date Analyzed: 2012-11-20

Analyzed By: RL

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		2	mg/L	5.00	4.60	92	90 - 110	2012-11-20

### Standard (CCV-2)

QC Batch: 96822

Date Analyzed: 2012-11-20

Analyzed By: RL

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		2	mg/L	25.0	23.8	95	90 - 110	2012-11-20

### Standard (CCV-2)

QC Batch: 96822

Date Analyzed: 2012-11-20

Analyzed By: RL

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		2	mg/L	5.00	5.02	100	90 - 110	2012-11-20

**Standard (CCV-3)**

QC Batch: 96822

Date Analyzed: 2012-11-20

Analyzed By: RL

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		2	mg/L	25.0	23.6	94	90 - 110	2012-11-20

**Standard (CCV-3)**

QC Batch: 96822

Date Analyzed: 2012-11-20

Analyzed By: RL

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		2	mg/L	5.00	5.06	101	90 - 110	2012-11-20

**Standard (CCV-4)**

QC Batch: 96822

Date Analyzed: 2012-11-20

Analyzed By: RL

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		2	mg/L	25.0	23.5	94	90 - 110	2012-11-20

**Standard (CCV-4)**

QC Batch: 96822

Date Analyzed: 2012-11-20

Analyzed By: RL

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		2	mg/L	5.00	5.01	100	90 - 110	2012-11-20

**Standard (ICV-1)**

QC Batch: 96850

Date Analyzed: 2012-11-26

Analyzed By: AK



Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.62	92	85 - 115	2012-11-26

**Standard (CCV-1)**

QC Batch: 96850

Date Analyzed: 2012-11-26

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.48	90	85 - 115	2012-11-26

**Standard (ICV-1)**

QC Batch: 96908

Date Analyzed: 2012-11-26

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.62	92	85 - 115	2012-11-26

**Standard (CCV-1)**

QC Batch: 96908

Date Analyzed: 2012-11-26

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.48	90	85 - 115	2012-11-26

**Standard (CCV-1)**

QC Batch: 97127

Date Analyzed: 2012-11-20

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.6	94	90 - 110	2012-11-20

**Standard (CCV-1)**

QC Batch: 97127

Date Analyzed: 2012-11-20

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.69	94	90 - 110	2012-11-20

**Standard (CCV-2)**

QC Batch: 97127

Date Analyzed: 2012-11-20

Analyzed By: JR

Param	F	C	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	2012-11-20

**Standard (CCV-2)**

QC Batch: 97127

Date Analyzed: 2012-11-20

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.73	95	90 - 110	2012-11-20

---

## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike	
					Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.00	-
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.600	Pass
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.00	-
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.0800	Pass
TKN	E 351.3	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

# 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	T104704221-12-3	El Paso
2	NELAP	T104704219-12-8	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 than 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.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
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.

6701 Aberdeen, Ste. B  
Lubbock, TX 79424  
Tel (806) 794-1256  
Fax (806) 794-1266

# TraceAnalysis, Inc.

195 McCurtain, Ste. H  
Paso, TX 79632  
Tel (815) 565-3443  
Fax (815) 565-4644

Page 1 of 1  
CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 12111971

Phone #: 815-859-8150  
Cell #:  
Fax #:  
E-mail: [vayala@dhpump.com](mailto:vayala@dhpump.com)

Company Name:  
D&H Petroleum & Environmental Services

Address: (Street, City, Zip)  
1221 Tower Trail Ln., El Paso, Texas 79907

Contact Person:  
Victor Ayala

Invoice to (if different from above):

Big Sky Dairy, P.O. Box 10, Mesquite, NM 88048

George Segura 575-233-3620

Project Name:  
Big Sky Dairy

Project #:  
401363

Project Location (including state):

Big Sky Dairy, 17800 Stern Drive, Mesquite, NM

Sampler Signature:  
*Victor Ayala*

LAB # (LAB USE ONLY)	Field Code	# Containers	Volume/Amount	MATRIX			PRESERVATIVE METHOD				DATE	SAMPLING TIME	Turn Around Time	Hold
				WATER	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH				
833-1		1		X				X						
833-1		2		X				X						
314638		1	28ml	X				X			11-19-12	12:40		
314638-2		2	28ml	X				X			11-19-12	12:40		
833-8		1		X				X						
833-8		2		X				X						
314639-1		1	28ml	X				X			11-19-12	13:52		
314639-2		2	28ml	X				X			11-19-12	13:52		
833-9		1		X				X						
833-9		2		X				X						
314640-1		1	28ml	X				X			11-19-12	14:49		
314640-1		2	28ml	X				X			11-19-12	14:49		
833-7		1		X				X						
833-7		2		X				X						
833-6		1		X				X						
833-6		2		X				X						
833-8		1		X				X						
833-8		2		X				X						

ANALYSIS REQUEST

MTBE 8021B/602	
BTEX 8021B/602	
TPH 418.1 / TX1005	
TX 1005 Extended (C35)	
PAH 8270C	
PAH 8270 (Low Level Analysis)	
Total Metals Ag As Ba Cd Cr Pb Se Hg 8010B/2007	X
Nitrates EPA 300	X
Total Kjeldahl Nitrogen SM 4500 NORG C	X
Chloride EPA 300.0	X
Total Dissolved Solids SM 2540 C MOD	X

Relinquished By: *Victor Ayala* Date: 11/19/12 Time: 15:35  
 Received By: *[Signature]* Date: 11/19/12 Time: 15:35  
 Relinquished By: *[Signature]* Date: 11/19/12 Time: 16:30  
 Received By: *[Signature]* Date: 11/19/12 Time: 16:30

Lab Use Only  
 Inact  / N  
 Headspace Y / N  
 Temp 18.2 / 21.2  
 Log-in Review

Remarks:  
 Carry in TDS nitrates & chlorides done in E16210  
 ICE  
 Dry Weight Basis Required  
 TRRP Report Required

LAB Order ID # 12111921

Company Name: D&H Petroleum & Environmental Services  
 Phone #: 915-859-8150  
 Cell #:   
 Address: (Street, City, Zip) 1221 Tower Trail Ln., El Paso, Texas 79907  
 Contact Person: Victor Ayala  
 E-mail: vayala@dhpump.com  
 Fax #:   
 Invoice to (if different from above): George Segura 575-233-3620  
 Project #: 401363  
 Project Name: Big Sky Dairy  
 Sampler Signature: *Carol M. R...*  
 Project Location (including state): Big Sky Dairy, 17800 Stern Drive, Mesquite, NM

LAB # (LAB USE ONLY)	Field Code	# Containers	Volume/Amount	MATRIX				PRESERVATIVE METHOD				DATE	SAMPLING TIME	Turn Around Time	
				WATER	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE				NONE
833-1		1		X				X							
833-1		2		X				X							
314638-1		1	250ml	X				X					11-19-12 12:40		
314638-2		2	250ml	X				X					11-19-12 12:40		
833-3		1		X				X							
833-3		2		X				X							
833-4		1	250ml	X				X					11-19-12 13:52		
833-4		2	250ml	X				X					11-19-12 13:52		
833-5		1		X				X							
833-5		2		X				X							
833-6		1	250ml	X				X					11-19-12 14:49		
833-6		2	250ml	X				X					11-19-12 14:49		
833-7		1		X				X							
833-7		2		X				X							
833-8		1		X				X							
833-8		2		X				X							

ANALYSIS REQUEST

TX 1005 Extended (C35)

PAH 8270C

PAH 8270 (Low Level Analysis)

Total Metals Ag As BA Cd Cr Pb Se Hg 6010B/200.7

Nitrates EPA 300

Total Kjeldahl Nitrogen SM 4500 NOR/C

Chloride EPA 300.0

Total Dissolved Solids SM 2540 C MOD

Remarks: Carry in TDS in brackets & Chlorides in ICE done in E16210  
 Dry Weight Basis Required  
 TRRP Report Required

Lab Use Only  
 Intact (Y/N) Y/N  
 Headspace Y/N  
 Temp (F) 24  
 Log-in Review

Relinquished By: *Carol M. R...* Date: 11/19/12 Time: 15:35  
 Received By: *...* Date: 11/19/12 Time: 15:35

Relinquished By: *...* Date: 11/19/12 Time: 16:30  
 Received By: *...* Date: 11/20/12 Time: 9:10



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 915-585-3443 FAX 915-585-4944  
 5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
 (BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Bruce Bonestroo  
 River Valley Dairy, LLC  
 1400 La Chuga Rd., Mesquite  
 P.O. Box 1929  
 Anthony, NM, 88021

Report Date: December 5, 2012

Work Order: 12111923



DP: 167  
 Project Location: 1400 La Chuga Rd., Mesquite, NM  
 Project Name: River Valley Dairy, LLC

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
314641	167-06	water	2012-11-19	08:17	2012-11-19
314642	167-09	water	2012-11-19	09:28	2012-11-19
314643	167-05	water	2012-11-19	10:48	2012-11-19

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 16 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

**Notes:**

*For inorganic analyses, the term MQL should actually read PQL.*

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

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## Case Narrative

Samples for project River Valley Dairy, LLC were received by TraceAnalysis, Inc. on 2012-11-19 and assigned to work order 12111923. Samples for work order 12111923 were received intact at a temperature of 2.0 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	82323	2012-11-20 at 15:17	97127	2012-11-20 at 15:17
Chloride (IC)	E 300.0	82326	2012-11-20 at 19:29	97129	2012-11-20 at 19:29
NO3 (IC)	E 300.0	82326	2012-11-20 at 19:29	97129	2012-11-20 at 19:29
TDS	SM 2540C	82141	2012-11-23 at 11:30	96899	2012-11-23 at 11:30
TKN	E 351.3	82149	2012-11-26 at 03:15	96908	2012-11-26 at 05:00

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 12111923 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: 314641 - 167-06**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97127 Date Analyzed: 2012-11-20 Analyzed By: JR  
 Prep Batch: 82323 Sample Preparation: 2012-11-20 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Chloride		1	<b>718</b>	<b>718</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 314641 - 167-06**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97129 Date Analyzed: 2012-11-20 Analyzed By: JR  
 Prep Batch: 82326 Sample Preparation: 2012-11-20 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>23.7</b>	<b>23.7</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 314641 - 167-06**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96899 Date Analyzed: 2012-11-23 Analyzed By: DL  
 Prep Batch: 82141 Sample Preparation: 2012-11-23 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>2980</b>	<b>2980</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314641 - 167-06**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96908 Date Analyzed: 2012-11-26 Analyzed By: AK  
 Prep Batch: 82149 Sample Preparation: 2012-11-26 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314642 - 167-09**

Laboratory: El Paso  
 Analysis: Chloride (IC)      Analytical Method: E 300.0      Prep Method: N/A  
 QC Batch: 97129      Date Analyzed: 2012-11-20      Analyzed By: JR  
 Prep Batch: 82326      Sample Preparation: 2012-11-20      Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>979</b>	<b>979</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 314642 - 167-09**

Laboratory: El Paso  
 Analysis: NO3 (IC)      Analytical Method: E 300.0      Prep Method: N/A  
 QC Batch: 97129      Date Analyzed: 2012-11-20      Analyzed By: JR  
 Prep Batch: 82326      Sample Preparation: 2012-11-20      Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>12.8</b>	<b>12.8</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 314642 - 167-09**

Laboratory: El Paso  
 Analysis: TDS      Analytical Method: SM 2540C      Prep Method: N/A  
 QC Batch: 96899      Date Analyzed: 2012-11-23      Analyzed By: DL  
 Prep Batch: 82141      Sample Preparation: 2012-11-23      Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3560</b>	<b>3560</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314642 - 167-09**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96908 Date Analyzed: 2012-11-26 Analyzed By: AK  
 Prep Batch: 82149 Sample Preparation: 2012-11-26 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314643 - 167-05**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97129 Date Analyzed: 2012-11-20 Analyzed By: JR  
 Prep Batch: 82326 Sample Preparation: 2012-11-20 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Chloride		1	<b>805</b>	<b>805</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 314643 - 167-05**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97129 Date Analyzed: 2012-11-20 Analyzed By: JR  
 Prep Batch: 82326 Sample Preparation: 2012-11-20 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N	J	1	<b>2.31</b>	<2.50	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 314643 - 167-05**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96899 Date Analyzed: 2012-11-23 Analyzed By: DL  
 Prep Batch: 82141 Sample Preparation: 2012-11-23 Prepared By: DL

*continued . . .*

sample 314643 continued ...

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>3480</b>	<b>3480</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314643 - 167-05**

Laboratory: Lubbock  
Analysis: TKN  
QC Batch: 96908  
Prep Batch: 82149

Analytical Method: E 351.3  
Date Analyzed: 2012-11-26  
Sample Preparation: 2012-11-26

Prep Method: N/A  
Analyzed By: AK  
Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

## Method Blanks

### Method Blank (1)

QC Batch: 96899  
Prep Batch: 82141Date Analyzed: 2012-11-23  
QC Preparation: 2012-11-23Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 96908  
Prep Batch: 82149Date Analyzed: 2012-11-26  
QC Preparation: 2012-11-26Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.72	mg/L	1.72

### Method Blank (1)

QC Batch: 97127  
Prep Batch: 82323Date Analyzed: 2012-11-20  
QC Preparation: 2012-11-20Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

### Method Blank (1)

QC Batch: 97129  
Prep Batch: 82326Date Analyzed: 2012-11-20  
QC Preparation: 2012-11-20Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

**Method Blank (1)**

QC Batch: 97129  
Prep Batch: 82326

Date Analyzed: 2012-11-20  
QC Preparation: 2012-11-20

Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

**Duplicate (1)** Duplicated Sample: 314782

QC Batch: 96899  
Prep Batch: 82141

Date Analyzed: 2012-11-23  
QC Preparation: 2012-11-23

Analyzed By: DL  
Prepared By: DL

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	3580	3580	mg/L	1	0	10

# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 96899  
Prep Batch: 82141Date Analyzed: 2012-11-23  
QC Preparation: 2012-11-23Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	997	mg/L	1	1000	<5.00	100	90 - 110

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	998	mg/L	1	1000	<5.00	100	90 - 110	0	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: 97127  
Prep Batch: 82323Date Analyzed: 2012-11-20  
QC Preparation: 2012-11-20Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	23.3	mg/L	1	25.0	<0.209	93	90 - 110

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	23.7	mg/L	1	25.0	<0.209	95	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: 97129  
Prep Batch: 82326Date Analyzed: 2012-11-20  
QC Preparation: 2012-11-20Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	23.4	mg/L	1	25.0	<0.209	94	90 - 110

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



Param	F	C	LCSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	23.4	mg/L	1	25.0	<0.209	94	90 - 110	0	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: 97129  
Prep Batch: 82326

Date Analyzed: 2012-11-20  
QC Preparation: 2012-11-20

Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	4.67	mg/L	1	5.00	<0.00580	93	90 - 110

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

Param	F	C	LCSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	4.66	mg/L	1	5.00	<0.00580	93	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: 314643

QC Batch: 96908  
Prep Batch: 82149

Date Analyzed: 2012-11-26  
QC Preparation: 2012-11-26

Analyzed By: AK  
Prepared By: AK

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
			Result	Units					
Total Kjeldahl Nitrogen - N		2	39.2	mg/L	1	50.0	<1.72	78	10 - 151

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

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Total Kjeldahl Nitrogen - N		2	39.9	mg/L	1	50.0	<1.72	80	10 - 151	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: 314641

QC Batch: 97127  
Prep Batch: 82323

Date Analyzed: 2012-11-20  
QC Preparation: 2012-11-20

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	3450	mg/L	111	2780	718	98	90 - 110

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

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	3450	mg/L	111	2780	718	98	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: 314643

QC Batch: 97129 Date Analyzed: 2012-11-20 Analyzed By: JR  
Prep Batch: 82326 QC Preparation: 2012-11-20 Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	3540	mg/L	111	2780	805	98	90 - 110

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

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	3540	mg/L	111	2780	805	98	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: 314643

QC Batch: 97129 Date Analyzed: 2012-11-20 Analyzed By: JR  
Prep Batch: 82326 QC Preparation: 2012-11-20 Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	521	mg/L	111	555	2.31	93	90 - 110

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

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	521	mg/L	111	555	2.31	93	90 - 110	0	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: 96908

Date Analyzed: 2012-11-26

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.62	92	85 - 115	2012-11-26

### Standard (CCV-1)

QC Batch: 96908

Date Analyzed: 2012-11-26

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.48	90	85 - 115	2012-11-26

### Standard (CCV-1)

QC Batch: 97127

Date Analyzed: 2012-11-20

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.6	94	90 - 110	2012-11-20

### Standard (CCV-2)

QC Batch: 97127

Date Analyzed: 2012-11-20

Analyzed By: JR

Param	F	C	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	2012-11-20

**Standard (CCV-1)**

QC Batch: 97129

Date Analyzed: 2012-11-20

Analyzed By: JR

Param	F	C	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	2012-11-20

**Standard (CCV-1)**

QC Batch: 97129

Date Analyzed: 2012-11-20

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.73	95	90 - 110	2012-11-20

**Standard (CCV-2)**

QC Batch: 97129

Date Analyzed: 2012-11-20

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.7	95	90 - 110	2012-11-20

**Standard (CCV-2)**

QC Batch: 97129

Date Analyzed: 2012-11-20

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.71	94	90 - 110	2012-11-20

---

## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.00	-
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.00	-
TKN	E 351.3	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

---

# 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	T104704221-12-3	El Paso
2	NELAP	T104704219-12-8	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 than 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.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
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.

**TraceAnalysis, Inc.**  
Company Name: Phone #: 915-859-8150  
D&H Petroleum & Environmental Services Cell #:   
Address: (Street, City, Zip) valajala@dhoup.com  
1221 Tower Trail Ln, El Paso TX 79907  
Contact Person: Victor Ayala  
Invoice to (if different from above):  
River Valley Dairy, PO Box 1929, Anthony, NM 88021  
Project #: 401374  
Project Name: Bruce Bonestroo 575-233-2061  
River Valley Dairy, LLC  
Sampler Signature: *[Signature]*

LAB #	Field Code	# Containers	Volume/Amount	MATRIX			PRESERVATIVE METHOD					SAMPLING		TIME	Hold	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE			DATE
314241-1	167-06	1	25ml	X				X						11-19-12	8:17	
314241-2	167-06	2	25ml	X				X						11-19-12	8:17	
314241-1	167-09	1	25ml	X				X						11-19-12	9:28	
314241-2	167-09	2	25ml	X				X						11-19-12	9:28	
314241-1	167-05	1	25ml	X				X						11-19-12	10:41	
314241-2	167-05	2	25ml	X				X						11-19-12	10:41	

ANALYSIS REQUEST

MTBE 9021B/602	
BTEX 9021B/602	
TPH 418.1 / TX1005	
TX 1005 Extended (C35)	
PAH 8270C	
PAH 8270 (Low Level Analysis)	
Total Metals: Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	
Nitrates EPA 300	
TKN SM 4500 NORG C	X
Chloride EPA 300	X
Total Dissolved Solids SM 2540 C MOD	X
Other - Phosphorus (EPA 6010B)	X
Turn Around Time	

Remarks: Only in ICE  
TDS & nitrate to be done in El Paso

Lab Use Only  
Initials: *[Signature]*  
Headspace Y/N: *[Signature]*  
Temp: 12.2 / 21.2  
Log-in Review: *[Signature]*

Received By: *[Signature]* Date: 11/19/12 Time: 15:35  
Received at Laboratory By: *[Signature]* Date: 11/19/12 Time: 16:30

Relinquished By: *[Signature]* Date: 11-19-12 Time: 16:30  
Relinquished By: *[Signature]* Date: 11-19-12 Time: 16:30

Company Name: D&H Petroleum & Environmental Services Phone #: 915-859-8150

Address: (Street, City, Zip) 1221 Tower Trail Ln, El Paso TX 79907 Cell #: \_\_\_\_\_

Contact Person: Victor Ayala E-mail: vajala@dhpump.com

Invoice to (if different from above): \_\_\_\_\_

River Valley Dairy, PO Box 1929, Anthony, NM 88021 Project #: 401374

Project Name: Bruce Bonestroo 575-233-2061

River Valley Dairy, 1400 La Chuga Rd., Mesquite, NM Sampler Signature: [Signature]

LAB #	Field Code	# Containers	Volume/Amount	MATRIX				PRESERVATIVE METHOD				DATE	SAMPLING TIME	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH			ICE
				X				X						
314641-1	167-06	1	250ml	X				X			X		11-19-12	8:17
314641-2	167-06	2	250ml	X				X			X		11-19-12	8:17
314642-1	167-09	1	250ml	X				X			X		11-19-12	9:28
314642-2	167-09	2	250ml	X				X			X		11-19-12	9:28
314643-1	167-05	1	250ml	X				X			X		11-19-12	10:46
314643-2	167-05	2	250ml	X				X			X		11-19-12	10:48

Relinquished By: [Signature] Date: 11-19-12 Time: 15:35

Relinquished By: [Signature] Date: 11-19-12 Time: 16:30

Received By: [Signature] Date: 11/19/12 Time: 15:35

Received at Laboratory By: [Signature] Date: 11/20/12 Time: 9:10

Lab Use Only  
 Intact Y / N  
 Headspace Y / N  
 Temp 16.2 / 21.2  
 Log-in Review 9/1

Remarks: JDS & nitrate & chloride carry in done in E1650  
ICE 25 18542673 4.1/38

Dry Weight Basis Required   
 TRRP Report Required





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 915-585-3443 FAX 915-585-4944  
 5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
 (BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

(Corrected Report)

Bruce Bonestroo  
 River Valley Dairy, LLC  
 1400 La Chuga Rd., Mesquite  
 P.O. Box 1929  
 Anthony, NM, 88021

Report Date: December 6, 2012

Work Order: 12111543



DP: 167  
 Project Location: 1400 La Chuga Rd., Mesquite, NM  
 Project Name: River Valley Dairy, LLC

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
314339	167-01A	water	2012-11-15	13:59	2012-11-15
314340	167-03	water	2012-11-15	09:56	2012-11-15
314341	167-04	water	2012-11-15	11:28	2012-11-15
314342	167-07	water	2012-11-15	13:17	2012-11-15
314343	167 Lagoon	water	2012-11-15	14:38	2012-11-15

### Report Corrections (Work Order 12111543)

- Corrected Field Code for sample 314342.

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 19 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

### Notes:

*For inorganic analyses, the term MQL should actually read PQL.*

*Michael Abel*

---

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

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## Case Narrative

Samples for project River Valley Dairy, LLC were received by TraceAnalysis, Inc. on 2012-11-15 and assigned to work order 12111543. Samples for work order 12111543 were received intact at a temperature of 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	81944	2012-11-16 at 12:00	96669	2012-11-17 at 09:00
NO3 (IC)	E 300.0	81944	2012-11-16 at 12:00	96669	2012-11-17 at 09:00
TDS	SM 2540C	82139	2012-11-16 at 10:00	96897	2012-11-16 at 10:00
TKN	E 351.3	82082	2012-11-26 at 09:10	96850	2012-11-26 at 13:10

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 12111543 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: 314339 - 167-01A**

Laboratory: Lubbock  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96669 Date Analyzed: 2012-11-17 Analyzed By: RL  
 Prep Batch: 81944 Sample Preparation: 2012-11-16 Prepared By: RL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		2	<b>778</b>	<b>778</b>	<20.9	mg/L	100	20.9	2.5	0.209

**Sample: 314339 - 167-01A**

Laboratory: Lubbock  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96669 Date Analyzed: 2012-11-17 Analyzed By: RL  
 Prep Batch: 81944 Sample Preparation: 2012-11-16 Prepared By: RL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		2	<b>4.02</b>	<b>4.02</b>	<0.0595	mg/L	5	0.0595	0.04	0.0119

**Sample: 314339 - 167-01A**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96897 Date Analyzed: 2012-11-16 Analyzed By: DL  
 Prep Batch: 82139 Sample Preparation: 2012-11-16 Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3440</b>	<b>3440</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314339 - 167-01A**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96850 Date Analyzed: 2012-11-26 Analyzed By: AK  
 Prep Batch: 82082 Sample Preparation: 2012-11-26 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314340 - 167-03**

Laboratory: Lubbock  
 Analysis: Chloride (IC)                      Analytical Method: E 300.0                      Prep Method: N/A  
 QC Batch: 96669                              Date Analyzed: 2012-11-17                      Analyzed By: RL  
 Prep Batch: 81944                              Sample Preparation: 2012-11-16                      Prepared By: RL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Chloride		2	<b>503</b>	<b>503</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 314340 - 167-03**

Laboratory: Lubbock  
 Analysis: NO3 (IC)                              Analytical Method: E 300.0                              Prep Method: N/A  
 QC Batch: 96669                              Date Analyzed: 2012-11-17                              Analyzed By: RL  
 Prep Batch: 81944                              Sample Preparation: 2012-11-16                              Prepared By: RL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N		2	<b>15.0</b>	<b>15.0</b>	<0.0595	mg/L	5	0.0595	0.04	0.0119

**Sample: 314340 - 167-03**

Laboratory: El Paso  
 Analysis: TDS                                      Analytical Method: SM 2540C                              Prep Method: N/A  
 QC Batch: 96897                              Date Analyzed: 2012-11-16                              Analyzed By: DL  
 Prep Batch: 82139                              Sample Preparation: 2012-11-16                              Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>2150</b>	<b>2150</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314340 - 167-03**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96850 Date Analyzed: 2012-11-26 Analyzed By: AK  
 Prep Batch: 82082 Sample Preparation: 2012-11-26 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314341 - 167-04**

Laboratory: Lubbock  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96669 Date Analyzed: 2012-11-17 Analyzed By: RL  
 Prep Batch: 81944 Sample Preparation: 2012-11-16 Prepared By: RL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Chloride		2	<b>1150</b>	<b>1150</b>	<20.9	mg/L	100	20.9	2.5	0.209

**Sample: 314341 - 167-04**

Laboratory: Lubbock  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96669 Date Analyzed: 2012-11-17 Analyzed By: RL  
 Prep Batch: 81944 Sample Preparation: 2012-11-16 Prepared By: RL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N		2	<b>7.77</b>	<b>7.77</b>	<0.0595	mg/L	5	0.0595	0.04	0.0119

**Sample: 314341 - 167-04**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96897 Date Analyzed: 2012-11-16 Analyzed By: DL  
 Prep Batch: 82139 Sample Preparation: 2012-11-16 Prepared By: DL

*continued . . .*

sample 314341 continued ...

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>4380</b>	<b>4380</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314341 - 167-04**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96850 Date Analyzed: 2012-11-26 Analyzed By: AK  
 Prep Batch: 82082 Sample Preparation: 2012-11-26 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314342 - 167-07**

Laboratory: Lubbock  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96669 Date Analyzed: 2012-11-17 Analyzed By: RL  
 Prep Batch: 81944 Sample Preparation: 2012-11-16 Prepared By: RL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		2	<b>498</b>	<b>498</b>	<20.9	mg/L	100	20.9	2.5	0.209

**Sample: 314342 - 167-07**

Laboratory: Lubbock  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96669 Date Analyzed: 2012-11-17 Analyzed By: RL  
 Prep Batch: 81944 Sample Preparation: 2012-11-16 Prepared By: RL



Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	u	2	<0.0595	<0.200	<0.0595	mg/L	5	0.0595	0.04	0.0119

**Sample: 314342 - 167-07**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96897 Date Analyzed: 2012-11-16 Analyzed By: DL  
 Prep Batch: 82139 Sample Preparation: 2012-11-16 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>3280</b>	<b>3280</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314342 - 167-07**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96850 Date Analyzed: 2012-11-26 Analyzed By: AK  
 Prep Batch: 82082 Sample Preparation: 2012-11-26 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314343 - 167 Lagoon**

Laboratory: Lubbock  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96669 Date Analyzed: 2012-11-17 Analyzed By: RL  
 Prep Batch: 81944 Sample Preparation: 2012-11-16 Prepared By: RL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		2	<b>898</b>	<b>898</b>	<20.9	mg/L	100	20.9	2.5	0.209

**Sample: 314343 - 167 Lagoon**

Laboratory: Lubbock  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 96669 Date Analyzed: 2012-11-17 Analyzed By: RL  
 Prep Batch: 81944 Sample Preparation: 2012-11-16 Prepared By: RL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N	u	2	<0.0595	<0.200	<0.0595	mg/L	5	0.0595	0.04	0.0119

**Sample: 314343 - 167 Lagoon**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96897 Date Analyzed: 2012-11-16 Analyzed By: DL  
 Prep Batch: 82139 Sample Preparation: 2012-11-16 Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>2450</b>	<b>2450</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314343 - 167 Lagoon**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 96850 Date Analyzed: 2012-11-26 Analyzed By: AK  
 Prep Batch: 82082 Sample Preparation: 2012-11-26 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

## Method Blanks

### Method Blank (1)

QC Batch: 96669  
Prep Batch: 81944Date Analyzed: 2012-11-17  
QC Preparation: 2012-11-16Analyzed By: RL  
Prepared By: RL

Parameter	F	C	Result	Units	Reporting Limits
Chloride		2	0.255	mg/L	0.209

### Method Blank (1)

QC Batch: 96669  
Prep Batch: 81944Date Analyzed: 2012-11-17  
QC Preparation: 2012-11-16Analyzed By: RL  
Prepared By: RL

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		2	<0.0119	mg/L	0.0119

### Method Blank (1)

QC Batch: 96850  
Prep Batch: 82082Date Analyzed: 2012-11-26  
QC Preparation: 2012-11-26Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.72	mg/L	1.72

### Method Blank (1)

QC Batch: 96897  
Prep Batch: 82139Date Analyzed: 2012-11-16  
QC Preparation: 2012-11-16Analyzed By: DL  
Prepared By: DL

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Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

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**Duplicate (1)** Duplicated Sample: 314343

QC Batch: 96897

Date Analyzed: 2012-11-16

Analyzed By: DL

Prep Batch: 82139

QC Preparation: 2012-11-16

Prepared By: DL

---

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	2600	2450	mg/L	1	6	10

---

# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 96669  
Prep Batch: 81944Date Analyzed: 2012-11-17  
QC Preparation: 2012-11-16Analyzed By: RL  
Prepared By: RL

Param	F	C	LCS			Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units	Units					
Chloride		2	24.5	mg/L		1	25.0	<0.209	98	90 - 110

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

Param	F	C	LCS			Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units	Units							
Chloride		2	24.6	mg/L		1	25.0	<0.209	98	90 - 110	0	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: 96669  
Prep Batch: 81944Date Analyzed: 2012-11-17  
QC Preparation: 2012-11-16Analyzed By: RL  
Prepared By: RL

Param	F	C	LCS			Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units	Units					
Nitrate-N		2	5.13	mg/L		1	5.00	<0.0119	103	90 - 110

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

Param	F	C	LCS			Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units	Units							
Nitrate-N		2	5.17	mg/L		1	5.00	<0.0119	103	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: 96897  
Prep Batch: 82139Date Analyzed: 2012-11-16  
QC Preparation: 2012-11-16Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS			Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units	Units					
Total Dissolved Solids		1	966	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		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Total Dissolved Solids		1	975	mg/L	1	1000	<5.00	98	90 - 110	1	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: 314343

QC Batch: 96669 Date Analyzed: 2012-11-17 Analyzed By: RL  
Prep Batch: 81944 QC Preparation: 2012-11-16 Prepared By: RL

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		2	3390	mg/L	100	2500	898	100	80 - 120

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

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		2	3520	mg/L	100	2500	898	105	80 - 120	4	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: 314343

QC Batch: 96669 Date Analyzed: 2012-11-17 Analyzed By: RL  
Prep Batch: 81944 QC Preparation: 2012-11-16 Prepared By: RL

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		2	494	mg/L	100	500	<1.19	99	80 - 120

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

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		2	506	mg/L	100	500	<1.19	101	80 - 120	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: 314638

QC Batch: 96850 Date Analyzed: 2012-11-26 Analyzed By: AK  
Prep Batch: 82082 QC Preparation: 2012-11-26 Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	42.0	mg/L	1	50.0	2.1	80	10 - 151

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
Total Kjeldahl Nitrogen - N		2	43.4	mg/L	1	50.0	2.1	83	10 - 151	3	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: 96669

Date Analyzed: 2012-11-17

Analyzed By: RL

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		2	mg/L	25.0	24.1	96	90 - 110	2012-11-17

### Standard (CCV-1)

QC Batch: 96669

Date Analyzed: 2012-11-17

Analyzed By: RL

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		2	mg/L	5.00	5.13	103	90 - 110	2012-11-17

### Standard (CCV-2)

QC Batch: 96669

Date Analyzed: 2012-11-17

Analyzed By: RL

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		2	mg/L	25.0	24.0	96	90 - 110	2012-11-17

### Standard (CCV-2)

QC Batch: 96669

Date Analyzed: 2012-11-17

Analyzed By: RL

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		2	mg/L	5.00	5.05	101	90 - 110	2012-11-17



**Standard (ICV-1)**

QC Batch: 96850 Date Analyzed: 2012-11-26 Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.62	92	85 - 115	2012-11-26

**Standard (CCV-1)**

QC Batch: 96850 Date Analyzed: 2012-11-26 Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.48	90	85 - 115	2012-11-26

---

## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.600	Pass
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.0800	Pass
TKN	E 351.3	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

---

# 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	T104704221-12-3	El Paso
2	NELAP	T104704219-12-8	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 than 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.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
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.

**TraceAnalysis, Inc.**

**Company Name:** D&H Petroleum & Environmental Services  
**Address:** (Street, City, Zip) 1221 Tower Trail Ln, El Paso TX 79907  
**Contact Person:** Victor Ayala  
**Phone #:** 915-859-8150  
**Cell #:**  
**Fax #:**  
**E-mail:** vajala@dhpump.com

**Project #:** 402374  
**Project Name:** River Valley Dairy, PO Box 1929, Anthony, NM 88021  
**Project Location (including state):** River Valley Dairy, 1400 La Chuga Rd., Mesquite, NM  
**Sampler Signature:** *[Signature]*

LAB #	Field Code	# Containers	Volume/Amount	MATRIX				PRESERVATIVE METHOD				DATE	SAMPLING TIME	Turn Around Time	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH				ICE
167-01		1		X				X							
167-01		2		X				X							
167-01A	314337-1	1	250ml	X				X					11-15-12 13:59		
167-01A		2	250ml	X				X					11-15-12 13:59		
167-02		1		X				X							
167-02		2		X				X							
167-03		1	250ml	X				X					11-15-12 9:56		
167-03		2	250ml	X				X					11-15-12 9:56		
167-04		1	250ml	X				X					11-15-12 11:28		
167-04		2	250ml	X				X					11-15-12 11:28		
167-05		1		X				X							
167-05		2		X				X							
167-06		1		X				X							
167-06		2		X				X							
167-07		1	250ml	X				X					11-15-12 13:17		
167-07		2	250ml	X				X					11-15-12 13:17		

**ANALYSIS REQUEST**

PAH B270 (Low Level Analysis)

PAH B270C

TX 1005 Extended (C35)

TPH 418.1 / TX1005

BTEX 8021B/602

MTBE 8021B/602

Total Metals Ag As BA Cd Cr Pb Se Hg 6010B/200.7

Nitrates EPA 300

TKN SM 4500 NORG C

Chloride EPA 300

Total Dissolved Solids SM 2540 C MOD

Remarks: TDS in El Paso  
All analysis in Lubbock  
Dry Weight Basis Required  **Carry in**  
TRRP Report Required

Relinquished By: *[Signature]* Date: 11/15/12 Time: 15:25  
 Relinquished By: *[Signature]* Date: 11/15/12 Time: 16:30

Received By: *[Signature]* Date: 11/15/12 Time: 15:25  
 Received at Laboratory By: *[Signature]* Date: 11/15/12 Time: 15:25

Lab Use Only  
 Initialed Y/N  N  
 Headspace Y/N  N  
 Temp  D  
 Log-in Review

**TraceAnalysis, Inc.**  
 D&H Petroleum & Environmental Services  
 Address: (Street, City, Zip)  
 1221 Tower Trail Ln, El Paso TX 79907  
 Contact Person: Victor Ayala  
 Phone #: 915-859-8150  
 Cell #: 915-859-8150  
 Fax #: vajala@dhpump.com  
 E-mail: vajala@dhpump.com

Project #: 401374  
 Project Name: Bruce Bonestroo 575-233-2081  
 River Valley Dairy, LLC  
 River Valley Dairy, PO Box 1929, Anthony, NM 88021  
 Project Location (including state):  
 River Valley Dairy, 1400 La Chuga Rd., Mesquite, NM

LAB #	Field Code	# Containers	Volume/Amount	MATRIX			PRESERVATIVE METHOD					Sampling		TIME	Turn Around Time	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE			DATE
107-06		1		X						X						
107-08		2		X						X	X	X				
107-08		1		X						X						
107-09		2		X						X	X	X				
341243-1	167 Lagoon	1	250 mL	X						X				11-15-12	14:38	
341243-2	167 Lagoon	2	250 mL	X						X	X	X		11-15-12	14:38	

ANALYSIS REQUEST

TX 1005 Extended (C35)	
TPH 418.1 / TX1005	
PAH 8270C	
PAH 8270 (Low Level Analysis)	
Total Metals Ag As BA Cd Cr Pb Se Hg 8010B/200.7	
Nitrates EPA 300	X
TKN SM 4500 NORG C	X
Chloride EPA 300	X
Total Dissolved Solids SM 2540 C MOD	X

Remarks: JDS in El Paso  
 all analysis on Lubbock  
 Dry Weight Basis Required  
 TRRP Report Required

Lab Use Only  
 Intact  N  
 Headspace Y  N  
 Temp 40  
 Log-in Review

Relinquished By: [Signature] Date: 11/15/12 Time: 15:25  
 Received By: [Signature] Date: 11/15/12 Time: 15:25

Relinquished By: [Signature] Date: 11/15/12 Time: 15:25  
 Received at Laboratory By: [Signature] Date: 11/15/12 Time: 15:25



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 915-585-3443 FAX 915-585-4944  
 5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
 (BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Edward DeRuyter  
 Sunset Dairy  
 17900 Stern Drive  
 P.O. Box 10  
 Mesquite, NM, 88048

Report Date: December 6, 2012

Work Order: 12112118



DP: 257  
 Project Location: 17900 S. Stern Dr., Mesquite, NM  
 Project Name: Sunset Dairy

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
314945	257-01	water	2012-11-21	08:39	2012-11-21
314946	257-02	water	2012-11-21	07:59	2012-11-21
314947	257-03	water	2012-11-21	10:53	2012-11-21
314948	257/260-01	water	2012-11-21	11:54	2012-11-21
314949	257 Lagoon	water	2012-11-21	09:47	2012-11-21

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.

This report consists of a total of 22 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

**Notes:**

*For inorganic analyses, the term MQL should actually read PQL.*

*Michael Abel*

---

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

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## Case Narrative

Samples for project Sunset Dairy were received by TraceAnalysis, Inc. on 2012-11-21 and assigned to work order 12112118. Samples for work order 12112118 were received damaged at a temperature of 0.0 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	82329	2012-11-21 at 21:57	97132	2012-11-21 at 21:57
Chloride (IC)	E 300.0	82334	2012-11-22 at 01:55	97139	2012-11-22 at 01:55
NO3 (IC)	E 300.0	82329	2012-11-21 at 21:57	97132	2012-11-21 at 21:57
NO3 (IC)	E 300.0	82334	2012-11-22 at 01:55	97139	2012-11-22 at 01:55
TDS	SM 2540C	82142	2012-11-23 at 11:30	96900	2012-11-23 at 11:30
TKN	SM 4500-NH3 B,C	82189	2012-11-29 at 08:10	96993	2012-11-29 at 14:27

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 12112118 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: 314945 - 257-01**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97132 Date Analyzed: 2012-11-21 Analyzed By: JR  
 Prep Batch: 82329 Sample Preparation: 2012-11-21 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>625</b>	<b>625</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 314945 - 257-01**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97132 Date Analyzed: 2012-11-21 Analyzed By: JR  
 Prep Batch: 82329 Sample Preparation: 2012-11-21 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>24.7</b>	<b>24.7</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 314945 - 257-01**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96900 Date Analyzed: 2012-11-23 Analyzed By: DL  
 Prep Batch: 82142<sup>1</sup> Sample Preparation: 2012-11-23 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3130</b>	<b>3130</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314945 - 257-01**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 96993 Date Analyzed: 2012-11-29 Analyzed By: AK  
 Prep Batch: 82189 Sample Preparation: 2012-11-29 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	J	2	<b>2.80</b>	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314946 - 257-02**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97132 Date Analyzed: 2012-11-21 Analyzed By: JR  
 Prep Batch: 82329 Sample Preparation: 2012-11-21 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>468</b>	<b>468</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 314946 - 257-02**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97132 Date Analyzed: 2012-11-21 Analyzed By: JR  
 Prep Batch: 82329 Sample Preparation: 2012-11-21 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>10.0</b>	<b>10.0</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 314946 - 257-02**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96900 Date Analyzed: 2012-11-23 Analyzed By: DL  
 Prep Batch: 82142<sup>2</sup> Sample Preparation: 2012-11-23 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>2060</b>	<b>2060</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314946 - 257-02**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 96993 Date Analyzed: 2012-11-29 Analyzed By: AK  
 Prep Batch: 82189 Sample Preparation: 2012-11-29 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank			(Unadjusted)	(Unadjusted)	
Total Kjeldahl Nitrogen - N	J	2	<b>2.80</b>	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314947 - 257-03**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97132 Date Analyzed: 2012-11-21 Analyzed By: JR  
 Prep Batch: 82329 Sample Preparation: 2012-11-21 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank			(Unadjusted)	(Unadjusted)	
Chloride		1	<b>490</b>	<b>490</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 314947 - 257-03**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97132 Date Analyzed: 2012-11-21 Analyzed By: JR  
 Prep Batch: 82329 Sample Preparation: 2012-11-21 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank			(Unadjusted)	(Unadjusted)	
Nitrate-N		1	<b>3.11</b>	<b>3.11</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 314947 - 257-03**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96900 Date Analyzed: 2012-11-23 Analyzed By: DL  
 Prep Batch: 82142<sup>3</sup> Sample Preparation: 2012-11-23 Prepared By: DL

*continued . . .*

*sample 314947 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	2250	2250	<5.00	mg/L	1	5.00	5	5

**Sample: 314947 - 257-03**

Laboratory: Lubbock

Analysis: TKN

QC Batch: 96993

Prep Batch: 82189

Analytical Method: SM 4500-NH3 B,C

Date Analyzed: 2012-11-29

Sample Preparation: 2012-11-29

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	J	2	2.80	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314948 - 257/260-01**

Laboratory: El Paso

Analysis: Chloride (IC)

QC Batch: 97139

Prep Batch: 82334

Analytical Method: E 300.0

Date Analyzed: 2012-11-22

Sample Preparation: 2012-11-22

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	722	722	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 314948 - 257/260-01**

Laboratory: El Paso

Analysis: NO3 (IC)

QC Batch: 97139

Prep Batch: 82334

Analytical Method: E 300.0

Date Analyzed: 2012-11-22

Sample Preparation: 2012-11-22

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	13.0	13.0	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 314948 - 257/260-01**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96900 Date Analyzed: 2012-11-23 Analyzed By: DL  
 Prep Batch: 82142<sup>4</sup> Sample Preparation: 2012-11-23 Prepared By: DL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	3020	3020	<5.00	mg/L	1	5.00	5	5

**Sample: 314948 - 257/260-01**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 96993 Date Analyzed: 2012-11-29 Analyzed By: AK  
 Prep Batch: 82189 Sample Preparation: 2012-11-29 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	J	2	3.50	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314949 - 257 Lagoon**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97139 Date Analyzed: 2012-11-22 Analyzed By: JR  
 Prep Batch: 82334 Sample Preparation: 2012-11-22 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	956	956	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 314949 - 257 Lagoon**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97139 Date Analyzed: 2012-11-22 Analyzed By: JR  
 Prep Batch: 82334 Sample Preparation: 2012-11-22 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N	u	1	<0.0290	<2.50	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 314949 - 257 Lagoon**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96900 Date Analyzed: 2012-11-23 Analyzed By: DL  
 Prep Batch: 82142<sup>5</sup> Sample Preparation: 2012-11-23 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>5640</b>	<b>5640</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314949 - 257 Lagoon**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 96993 Date Analyzed: 2012-11-29 Analyzed By: AK  
 Prep Batch: 82189 Sample Preparation: 2012-11-29 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N		2	<b>274</b>	<b>274</b>	<3.44	mg/L	2	3.44	10	1.72

## Method Blanks

### Method Blank (1)

QC Batch: 96900  
Prep Batch: 82142Date Analyzed: 2012-11-23  
QC Preparation: 2012-11-23Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 96993  
Prep Batch: 82189Date Analyzed: 2012-11-29  
QC Preparation: 2012-11-29Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.72	mg/L	1.72

### Method Blank (1)

QC Batch: 97132  
Prep Batch: 82329Date Analyzed: 2012-11-21  
QC Preparation: 2012-11-21Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

### Method Blank (1)

QC Batch: 97132  
Prep Batch: 82329Date Analyzed: 2012-11-21  
QC Preparation: 2012-11-21Analyzed By: JR  
Prepared By: JR



Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

**Method Blank (1)**

QC Batch: 97139                      Date Analyzed: 2012-11-22                      Analyzed By: JR  
 Prep Batch: 82334                      QC Preparation: 2012-11-22                      Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

**Method Blank (1)**

QC Batch: 97139                      Date Analyzed: 2012-11-22                      Analyzed By: JR  
 Prep Batch: 82334                      QC Preparation: 2012-11-22                      Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

**Duplicate (1)**      Duplicated Sample: 314945

QC Batch: 96900                      Date Analyzed: 2012-11-23                      Analyzed By: DL  
 Prep Batch: 82142                      QC Preparation: 2012-11-23                      Prepared By: DL

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	3170	3130	mg/L	1	1	10

# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 96900  
Prep Batch: 82142Date Analyzed: 2012-11-23  
QC Preparation: 2012-11-23Analyzed By: DL  
Prepared By: DL

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

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

Param	F	C	LCS 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	0	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: 97132  
Prep Batch: 82329Date Analyzed: 2012-11-21  
QC Preparation: 2012-11-21Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	25.2	mg/L	1	25.0	<0.209	101	90 - 110

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	25.1	mg/L	1	25.0	<0.209	100	90 - 110	0	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: 97132  
Prep Batch: 82329Date Analyzed: 2012-11-21  
QC Preparation: 2012-11-21Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	5.00	mg/L	1	5.00	<0.00580	100	90 - 110

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

Param	F	C	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	4.98	mg/L	1	5.00	<0.00580	100	90 - 110	0	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: 97139  
Prep Batch: 82334

Date Analyzed: 2012-11-22  
QC Preparation: 2012-11-22

Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	25.1	mg/L	1	25.0	<0.209	100	90 - 110

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

Param	F	C	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	25.0	mg/L	1	25.0	<0.209	100	90 - 110	0	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: 97139  
Prep Batch: 82334

Date Analyzed: 2012-11-22  
QC Preparation: 2012-11-22

Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	4.98	mg/L	1	5.00	<0.00580	100	90 - 110

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

Param	F	C	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	4.95	mg/L	1	5.00	<0.00580	99	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: 314946

QC Batch: 96993  
Prep Batch: 82189

Date Analyzed: 2012-11-29  
QC Preparation: 2012-11-29

Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	46.2	mg/L	1	50.0	2.8	87	10 - 151

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. Limit	RPD	RPD Limit	
Total Kjeldahl Nitrogen - N		2	44.8	mg/L	1	50.0	2.8	84	10 - 151	3	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: 314946

QC Batch: 97132 Date Analyzed: 2012-11-21 Analyzed By: JR  
Prep Batch: 82329 QC Preparation: 2012-11-21 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	1960	mg/L	55.6	1390	468	107	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. Limit	RPD	RPD Limit	
Chloride		1	1950	mg/L	55.6	1390	468	107	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: 314946

QC Batch: 97132 Date Analyzed: 2012-11-21 Analyzed By: JR  
Prep Batch: 82329 QC Preparation: 2012-11-21 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	291	mg/L	55.6	278	10	101	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. Limit	RPD	RPD Limit	
Nitrate-N		1	290	mg/L	55.6	278	10	101	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: 314948

QC Batch: 97139 Date Analyzed: 2012-11-22 Analyzed By: JR  
Prep Batch: 82334 QC Preparation: 2012-11-22 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	2250	mg/L	55.6	1390	722	110	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	2250	mg/L	55.6	1390	722	110	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: 314948

QC Batch: 97139 Date Analyzed: 2012-11-22 Analyzed By: JR  
Prep Batch: 82334 QC Preparation: 2012-11-22 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	290	mg/L	55.6	278	13	100	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
Nitrate-N		1	290	mg/L	55.6	278	13	100	90 - 110	0	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: 96993

Date Analyzed: 2012-11-29

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.34	87	85 - 115	2012-11-29

### Standard (CCV-1)

QC Batch: 96993

Date Analyzed: 2012-11-29

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.90	98	85 - 115	2012-11-29

### Standard (CCV-1)

QC Batch: 97132

Date Analyzed: 2012-11-21

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.6	94	90 - 110	2012-11-21

### Standard (CCV-1)

QC Batch: 97132

Date Analyzed: 2012-11-21

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.70	94	90 - 110	2012-11-21

**Standard (CCV-2)**

QC Batch: 97132 Date Analyzed: 2012-11-21 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.6	94	90 - 110	2012-11-21

**Standard (CCV-2)**

QC Batch: 97132 Date Analyzed: 2012-11-21 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.69	94	90 - 110	2012-11-21

**Standard (CCV-1)**

QC Batch: 97139 Date Analyzed: 2012-11-22 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.6	94	90 - 110	2012-11-22

**Standard (CCV-1)**

QC Batch: 97139 Date Analyzed: 2012-11-22 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.69	94	90 - 110	2012-11-22

**Standard (CCV-2)**

QC Batch: 97139 Date Analyzed: 2012-11-22 Analyzed By: JR

Report Date: December 6, 2012

Work Order: 12112118  
Sunset Dairy

Page Number: 19 of 22  
17900 S. Stern Dr., Mesquite, NM

---

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.5	94	90 - 110	2012-11-22

---

**Standard (CCV-2)**

QC Batch: 97139

Date Analyzed: 2012-11-22

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.67	93	90 - 110	2012-11-22

---



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## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.00	-
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.00	-
TKN	SM 4500-NH3 B,C	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

# 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	T104704221-12-3	El Paso
2	NELAP	T104704219-12-8	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 than 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.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
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

## Result Comments

- 10mil to 100mil dilution on sample 314785
- 10mil to 100mil dilution on sample 314785

- 3 10mil to 100mil dilution on sample 314785
- 4 10mil to 100mil dilution on sample 314785
- 5 10mil to 100mil dilution on sample 314785

## **Attachments**

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

6707 Aberdeen, Ste. 9  
Lubbock, TX 79424  
Tel (806) 794-1296  
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# TraceAnalysis, Inc.

155 McCutcheon, Ste. H  
Paso, TX 79932  
Tel (915) 585-3443  
Fax (915) 585-4944

Page 1 of 1  
CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: **D&H Petroleum & Environmental Services**  
Address: (Street, City, Zip)  
1221 Tower Trail Ln, El Paso TX 79907  
Contact Person: **Victor Ayala**  
Phone #: **915-859-8150**  
Cell #: **915-859-8150**  
Fax #: **vajala@dhpump.com**  
E-mail: **vajala@dhpump.com**

LAB Order ID # **12112118**

Invoice to (if different from above):

Sunset Dairy, PO Box 10, Mesquite, NM 88048

Ed DeRuyter 575-233-2029

Project #: **401376**

Project Name:  
Sunset Dairy

Project Location (including state):

Sunset Dairy, 1790

Sampler Signature:

*Chayel N. Rivera*

LAB #	Field Code	# Containers	Volume/Amount	MATRIX				PRESERVATIVE METHOD				SAMPLING			
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE	TIME
44945-1	257-01	1	250ml	X				X						11-21-12	8:39
45-2	257-01	1	250ml	X				X						11-21-12	8:39
46-1	257-02	1	250ml	X				X						11-21-12	7:59
46-2	257-02	1	250ml	X				X						11-21-12	7:59
47-1	257-03	1	250ml	X				X						11-21-12	10:53
47-2	257-03	1	250ml	X				X						11-21-12	10:53
48-1	257/260-01	1	250ml	X				X						11-21-12	11:54
48-2	257/260-01	1	250ml	X				X						11-21-12	11:54
49-1	257 Lagoon	1	250ml	X				X						11-21-12	9:47
49-2	257 Lagoon	1	250ml	X				X						11-21-12	9:47

## ANALYSIS REQUEST

Method	TX 1005 Extended (C35)	PAH 8270C	PAH 8270 (Low Level Analysis)	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	Nitrates EPA 300	TKN SM 4500 NORG C	Chloride EPA 300	Total Dissolved Solids SM 2540 C MOD
MTRB 8021B/602								
BTEX 8021B/602								
TPH 418.1 / TX1005								
Hold								

Relinquished By: *Chayel N. Rivera* Date: 11-21-12 Time: 12:51  
 Received By: *[Signature]* Date: 11/21/12 Time: 12:51  
 Relinquished By: *[Signature]* Date: 11/21/12 Time: 16:30  
 Received By: *Brenda Ward* Date: 11/27/12 Time: 9:45  
 Lab Use Only: Intact  Headspace Y/N  Temp  Log-in Review   
 Remarks: TKN SAMPLES 257-01, 02, 03 were 22, H<sub>2</sub>O<sub>2</sub> added at Lab. All were 257-12 257-12 257-12 257-12  
 Dry Weight Basis Required  
 TRRP Report Required 3.2/2.8



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 915-585-3443 FAX 915-585-4944  
 5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
 (BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

George Segura  
 Big Sky Dairy  
 17800 Stern Drive  
 P.O. Box 10  
 Mesquite, NM, 88048

Report Date: December 6, 2012

Work Order: 12112032



DP: 833  
 Project Location: 17800 Stern Drive, Mesquite, NM 88048  
 Project Name: Big Sky Dairy

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
314780	833-5	water	2012-11-20	11:18	2012-11-20
314781	833-7	water	2012-11-20	10:16	2012-11-20
314782	833-8	water	2012-11-20	09:12	2012-11-20
314783	833-9	water	2012-11-20	13:46	2012-11-20
314784	833-10	water	2012-11-20	14:56	2012-11-20
314785	833 Lagoon	water	2012-11-20	11:47	2012-11-20

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 26 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

**Notes:**

*For inorganic analyses, the term MQL should actually read PQL.*

*Michael Abel*

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

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## Case Narrative

Samples for project Big Sky Dairy were received by TraceAnalysis, Inc. on 2012-11-20 and assigned to work order 12112032. Samples for work order 12112032 were received intact at a temperature of 1.0 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	82327	2012-11-21 at 13:18	97130	2012-11-12 at 13:18
Chloride (IC)	E 300.0	82328	2012-11-21 at 17:30	97131	2012-11-21 at 17:30
NO3 (IC)	E 300.0	82327	2012-11-21 at 13:18	97130	2012-11-12 at 13:18
NO3 (IC)	E 300.0	82328	2012-11-21 at 17:30	97131	2012-11-21 at 17:30
TDS	SM 2540C	82141	2012-11-23 at 11:30	96899	2012-11-23 at 11:30
TDS	SM 2540C	82142	2012-11-23 at 11:30	96900	2012-11-23 at 11:30
TKN	SM 4500-NH3 B,C	82083	2012-11-26 at 09:12	96864	2012-11-26 at 14:45
TKN	SM 4500-NH3 B,C	82189	2012-11-29 at 08:10	96993	2012-11-29 at 14:27

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 12112032 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: 314780 - 833-5**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97130 Date Analyzed: 2012-11-12 Analyzed By: JR  
 Prep Batch: 82327 Sample Preparation: 2012-01-21 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>1070</b>	<b>1070</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 314780 - 833-5**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97130 Date Analyzed: 2012-11-12 Analyzed By: JR  
 Prep Batch: 82327 Sample Preparation: 2012-01-21 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>15.0</b>	<b>15.0</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 314780 - 833-5**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96899 Date Analyzed: 2012-11-23 Analyzed By: DL  
 Prep Batch: 82141 Sample Preparation: 2012-11-23 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>3100</b>	<b>3100</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314780 - 833-5**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 96993 Date Analyzed: 2012-11-29 Analyzed By: AK  
 Prep Batch: 82189 Sample Preparation: 2012-11-29 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	J	2	<b>2.10</b>	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314781 - 833-7**

Laboratory: El Paso  
 Analysis: Chloride (IC)                      Analytical Method: E 300.0                      Prep Method: N/A  
 QC Batch: 97130                                  Date Analyzed: 2012-11-12                      Analyzed By: JR  
 Prep Batch: 82327                                  Sample Preparation: 2012-01-21                      Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Chloride		1	<b>1130</b>	<b>1130</b>	<20.9	mg/L	100	20.9	2.5	0.209

**Sample: 314781 - 833-7**

Laboratory: El Paso  
 Analysis: NO3 (IC)                                  Analytical Method: E 300.0                                  Prep Method: N/A  
 QC Batch: 97130                                      Date Analyzed: 2012-11-12                                  Analyzed By: JR  
 Prep Batch: 82327                                      Sample Preparation: 2012-01-21                                  Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>95.1</b>	<b>95.1</b>	<0.0580	mg/L	10	0.0580	0.5	0.0058

**Sample: 314781 - 833-7**

Laboratory: El Paso  
 Analysis: TDS    Analytical Method: SM 2540C                                  Prep Method: N/A  
 QC Batch: 96899    Date Analyzed: 2012-11-23                                  Analyzed By: DL  
 Prep Batch: 82141    Sample Preparation: 2012-11-23                                  Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>4290</b>	<b>4290</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314781 - 833-7**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 96993 Date Analyzed: 2012-11-29 Analyzed By: AK  
 Prep Batch: 82189 Sample Preparation: 2012-11-29 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314782 - 833-8**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97130 Date Analyzed: 2012-11-12 Analyzed By: JR  
 Prep Batch: 82327 Sample Preparation: 2012-01-21 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>1070</b>	<b>1070</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 314782 - 833-8**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97130 Date Analyzed: 2012-11-12 Analyzed By: JR  
 Prep Batch: 82327 Sample Preparation: 2012-01-21 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>60.8</b>	<b>60.8</b>	<0.0580	mg/L	10	0.0580	0.5	0.0058

**Sample: 314782 - 833-8**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96899 Date Analyzed: 2012-11-23 Analyzed By: DL  
 Prep Batch: 82141 Sample Preparation: 2012-11-23 Prepared By: DL

*continued . . .*

*sample 314782 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>3580</b>	<b>3580</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314782 - 833-8**

Laboratory: Lubbock

Analysis: TKN

QC Batch: 96864

Prep Batch: 82083

Analytical Method: SM 4500-NH3 B,C

Date Analyzed: 2012-11-26

Sample Preparation: 2012-11-26

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314783 - 833-9**

Laboratory: El Paso

Analysis: Chloride (IC)

QC Batch: 97131

Prep Batch: 82328

Analytical Method: E 300.0

Date Analyzed: 2012-11-21

Sample Preparation: 2012-11-21

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>731</b>	<b>731</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 314783 - 833-9**

Laboratory: El Paso

Analysis: NO3 (IC)

QC Batch: 97131

Prep Batch: 82328

Analytical Method: E 300.0

Date Analyzed: 2012-11-21

Sample Preparation: 2012-11-21

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>89.6</b>	<b>89.6</b>	<0.0580	mg/L	10	0.0580	0.5	0.0058

**Sample: 314783 - 833-9**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96900 Date Analyzed: 2012-11-23 Analyzed By: DL  
 Prep Batch: 82142<sup>1</sup> Sample Preparation: 2012-11-23 Prepared By: DL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>3760</b>	<b>3760</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314783 - 833-9**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 96864 Date Analyzed: 2012-11-26 Analyzed By: AK  
 Prep Batch: 82083 Sample Preparation: 2012-11-26 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314784 - 833-10**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97131 Date Analyzed: 2012-11-21 Analyzed By: JR  
 Prep Batch: 82328 Sample Preparation: 2012-11-21 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>608</b>	<b>608</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 314784 - 833-10**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97131 Date Analyzed: 2012-11-21 Analyzed By: JR  
 Prep Batch: 82328 Sample Preparation: 2012-11-21 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>4.25</b>	<b>4.25</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 314784 - 833-10**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96900 Date Analyzed: 2012-11-23 Analyzed By: DL  
 Prep Batch: 82142<sup>2</sup> Sample Preparation: 2012-11-23 Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>2540</b>	<b>2540</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 314784 - 833-10**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 96864 Date Analyzed: 2012-11-26 Analyzed By: AK  
 Prep Batch: 82083 Sample Preparation: 2012-11-26 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 314785 - 833 Lagoon**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97131 Date Analyzed: 2012-11-21 Analyzed By: JR  
 Prep Batch: 82328 Sample Preparation: 2012-11-21 Prepared By: JR

*continued ...*

*sample 314785 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>679</b>	<b>679</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 314785 - 833 Lagoon**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97131 Date Analyzed: 2012-11-21 Analyzed By: JR  
 Prep Batch: 82328 Sample Preparation: 2012-11-21 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	u	1	<0.0290	<2.50	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 314785 - 833 Lagoon**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 96900 Date Analyzed: 2012-11-23 Analyzed By: DL  
 Prep Batch: 82142<sup>3</sup> Sample Preparation: 2012-11-23 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>7200</b>	<b>7200</b>	<50.0	mg/L	10	50.0	5	5

**Sample: 314785 - 833 Lagoon**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 96864 Date Analyzed: 2012-11-26 Analyzed By: AK  
 Prep Batch: 82083 Sample Preparation: 2012-11-26 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	J	2	<b>2.10</b>	<10.0	<1.72	mg/L	1	1.72	10	1.72



## Method Blanks

### Method Blank (1)

QC Batch: 96864  
Prep Batch: 82083Date Analyzed: 2012-11-26  
QC Preparation: 2012-11-26Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.72	mg/L	1.72

### Method Blank (1)

QC Batch: 96899  
Prep Batch: 82141Date Analyzed: 2012-11-23  
QC Preparation: 2012-11-23Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 96900  
Prep Batch: 82142Date Analyzed: 2012-11-23  
QC Preparation: 2012-11-23Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 96993  
Prep Batch: 82189Date Analyzed: 2012-11-29  
QC Preparation: 2012-11-29Analyzed By: AK  
Prepared By: AK

---

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.72	mg/L	1.72

---

**Method Blank (1)**

QC Batch: 97130 Date Analyzed: 2012-11-12 Analyzed By: JR  
Prep Batch: 82327 QC Preparation: 2012-11-21 Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

---

**Method Blank (1)**

QC Batch: 97130 Date Analyzed: 2012-11-12 Analyzed By: JR  
Prep Batch: 82327 QC Preparation: 2012-11-21 Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

---

**Method Blank (1)**

QC Batch: 97131 Date Analyzed: 2012-11-21 Analyzed By: JR  
Prep Batch: 82328 QC Preparation: 2012-11-21 Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

---

**Method Blank (1)**

QC Batch: 97131 Date Analyzed: 2012-11-21 Analyzed By: JR  
Prep Batch: 82328 QC Preparation: 2012-11-21 Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

**Duplicate (1)** Duplicated Sample: 314782

QC Batch: 96899 Date Analyzed: 2012-11-23 Analyzed By: DL  
 Prep Batch: 82141 QC Preparation: 2012-11-23 Prepared By: DL

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	3580	3580	mg/L	1	0	10

**Duplicate (1)** Duplicated Sample: 314945

QC Batch: 96900 Date Analyzed: 2012-11-23 Analyzed By: DL  
 Prep Batch: 82142 QC Preparation: 2012-11-23 Prepared By: DL

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	3170	3130	mg/L	1	1	10

# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 96899  
Prep Batch: 82141Date Analyzed: 2012-11-23  
QC Preparation: 2012-11-23Analyzed By: DL  
Prepared By: DL

Param	F	LCS		Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
		C	Result						
Total Dissolved Solids		1	997	mg/L	1	1000	<5.00	100	90 - 110

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

Param	F	C	LCS		Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units								
Total Dissolved Solids		1	998	mg/L	1	1000	<5.00	100	90 - 110	0	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: 96900  
Prep Batch: 82142Date Analyzed: 2012-11-23  
QC Preparation: 2012-11-23Analyzed By: DL  
Prepared By: DL

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

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

Param	F	C	LCS		Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units								
Total Dissolved Solids		1	1000	mg/L	1	1000	<5.00	100	90 - 110	0	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: 97130  
Prep Batch: 82327Date Analyzed: 2012-11-12  
QC Preparation: 2012-11-21Analyzed By: JR  
Prepared By: JR

Param	F	LCS		Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
		C	Result						
Chloride		1	23.7	mg/L	1	25.0	<0.209	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		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	23.6	mg/L	1	25.0	<0.209	94	90 - 110	0	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: 97130  
Prep Batch: 82327

Date Analyzed: 2012-11-12  
QC Preparation: 2012-11-21

Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	4.70	mg/L	1	5.00	<0.00580	94	90 - 110

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

Param	F	C	LCSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	4.69	mg/L	1	5.00	<0.00580	94	90 - 110	0	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: 97131  
Prep Batch: 82328

Date Analyzed: 2012-11-21  
QC Preparation: 2012-11-21

Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
			Result	Units					
Chloride		1	23.0	mg/L	1	25.0	<0.209	92	90 - 110

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

Param	F	C	LCSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	23.3	mg/L	1	25.0	<0.209	93	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: 97131  
Prep Batch: 82328

Date Analyzed: 2012-11-21  
QC Preparation: 2012-11-21

Analyzed By: JR  
Prepared By: JR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	4.64	mg/L	1	5.00	<0.00580	93	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
Nitrate-N		1	4.64	mg/L	1	5.00	<0.00580	93	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: 314784

QC Batch: 96864  
Prep Batch: 82083

Date Analyzed: 2012-11-26  
QC Preparation: 2012-11-26

Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	38.5	mg/L	1	50.0	<1.72	77	10 - 151

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
Total Kjeldahl Nitrogen - N		2	39.2	mg/L	1	50.0	<1.72	78	10 - 151	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: 314946

QC Batch: 96993  
Prep Batch: 82189

Date Analyzed: 2012-11-29  
QC Preparation: 2012-11-29

Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	46.2	mg/L	1	50.0	2.8	87	10 - 151

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
Total Kjeldahl Nitrogen - N		2	44.8	mg/L	1	50.0	2.8	84	10 - 151	3	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: 314780

QC Batch: 97130 Date Analyzed: 2012-11-12 Analyzed By: JR  
Prep Batch: 82327 QC Preparation: 2012-11-21 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	2560	mg/L	55.6	1390	1070	107	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	2550	mg/L	55.6	1390	1070	106	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: 314780

QC Batch: 97130 Date Analyzed: 2012-11-12 Analyzed By: JR  
Prep Batch: 82327 QC Preparation: 2012-11-21 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	281	mg/L	55.6	278	15	96	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
Nitrate-N		1	279	mg/L	55.6	278	15	95	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: 314784

QC Batch: 97131 Date Analyzed: 2012-11-21 Analyzed By: JR  
Prep Batch: 82328 QC Preparation: 2012-11-21 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	2030	mg/L	55.6	1390	608	102	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	2020	mg/L	55.6	1390	608	102	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: 314784

QC Batch: 97131  
Prep Batch: 82328

Date Analyzed: 2012-11-21  
QC Preparation: 2012-11-21

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	264	mg/L	55.6	278	4.25	93	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
Nitrate-N		1	262	mg/L	55.6	278	4.25	93	90 - 110	1	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: 96864

Date Analyzed: 2012-11-26

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.48	90	85 - 115	2012-11-26

### Standard (CCV-1)

QC Batch: 96864

Date Analyzed: 2012-11-26

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.48	90	85 - 115	2012-11-26

### Standard (ICV-1)

QC Batch: 96993

Date Analyzed: 2012-11-29

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.34	87	85 - 115	2012-11-29

### Standard (CCV-1)

QC Batch: 96993

Date Analyzed: 2012-11-29

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.90	98	85 - 115	2012-11-29

**Standard (CCV-1)**

QC Batch: 97130 Date Analyzed: 2012-11-12 Analyzed By: JR

Param	F	C	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	2012-11-12

**Standard (CCV-1)**

QC Batch: 97130 Date Analyzed: 2012-11-12 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.76	95	90 - 110	2012-11-12

**Standard (CCV-2)**

QC Batch: 97130 Date Analyzed: 2012-11-12 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.7	95	90 - 110	2012-11-12

**Standard (CCV-2)**

QC Batch: 97130 Date Analyzed: 2012-11-12 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.72	94	90 - 110	2012-11-12

**Standard (CCV-1)**

QC Batch: 97131 Date Analyzed: 2012-11-21 Analyzed By: JR

---

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.7	95	90 - 110	2012-11-21

---

**Standard (CCV-1)**

QC Batch: 97131

Date Analyzed: 2012-11-21

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.72	94	90 - 110	2012-11-21

---

**Standard (CCV-2)**

QC Batch: 97131

Date Analyzed: 2012-11-21

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.6	94	90 - 110	2012-11-21

---

**Standard (CCV-2)**

QC Batch: 97131

Date Analyzed: 2012-11-21

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.70	94	90 - 110	2012-11-21

---

---

## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.00	-
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.00	-
TKN	SM 4500-NH3 B,C	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

---

# 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	T104704221-12-3	El Paso
2	NELAP	T104704219-12-8	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 than 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.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
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

## Result Comments

- 1 10mil to 100mil dilution on sample 314785
- 2 10mil to 100mil dilution on sample 314785

3 10mil to 100mil dilution on sample 314785

## **Attachments**

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

6701 Aberdeen, Ste. 9  
Lubbock, TX 79424  
Tel (806) 794-1296  
Fax (806) 794-1298

# Trace Analysis, Inc.

155 McCutcheon, Ste. H El  
Paso, TX 79932  
Tel (915) 585-3443  
Fax (915) 585-4944

Company Name: **Phone #: 915-859-8150**  
Cell #: **1212032**  
D&H Petroleum & Environmental Services  
Address: (Street, City, Zip)  
1221 Tower Trail Ln., El Paso, Texas 79907  
Contact Person: **vavala@dhpump.com**  
Victor Ayala

Invoice to (if different from above):  
Big Sky Dairy, P.O. Box 10, Mesquite, NM 88048  
Project #: **401363**  
Project Name: **George Segura 575-233-3620**  
Big Sky Dairy  
Sampler Signature: *Angel N. Liron*

Project Location (including state):  
Big Sky Dairy, 17800 Stern Drive, Mesquite, NM

LAB #	Field Code	# Containers	Volume/Amount	MATRIX			PRESERVATIVE METHOD					Sampling		DATE	TIME	
				WATER	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE			TIME
833-1		1		X			X									
833-2		1		X			X									
833-3		1		X			X									
833-4		1		X			X									
34780-1		1	250ml	X			X							11-20-12	11:18	
34780-2		1	250ml	X			X							11-20-12	11:18	
34781-1		1	250ml	X			X							11-20-12	10:16	
34781-2		1	250ml	X			X							11-20-12	10:16	
34782-1		1	250ml	X			X							11-20-12	9:12	
34782-2		1	250ml	X			X							11-20-12	9:12	
34783-1		1	250ml	X			X							11-20-12	13:46	
34783-2		1	250ml	X			X							11-20-12	13:46	
34784-1		1	250ml	X			X							11-20-12	14:56	
34784-2		1	250ml	X			X							11-20-12	14:56	
34785-1	833 Lagoon	1	250ml	X			X							11-20-12	11:47	
34785-2	833 Lagoon	1	250ml	X			X							11-20-12	11:47	

MTBE 8021B/602																	
BTEX 8021B/602																	
TPH 418.1 / TX1005																	
TX 1005 Extended (C35)																	
PAH 8270C																	
PAH 8270 (Low Level Analysis)																	
Total Metals Ag As BA Cd Cr Pb Se Hg 6010B/200.7	X																
Nitrates EPA 300																	
Total Kjeldahl Nitrogen SM 4500 NORG C																	
Chloride EPA 300.0																	
Total Dissolved Solids SM 2540 C MOD																	

LAB Order ID # **1212032**

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST  
Page **1** of **1**

Relinquished By: *Angel N. Liron* Date: **11-20-12 15:43**  
Relinquished By: *JA* Date: **11-20-12-16:30**

Received By: *JA* Date: **11-20-12 15:43**  
Received at Laboratory By: *JA* Date: **11-20-12 15:43**

Lab Use Only  
Intact Y / N  
Headspace Y / N  
Temp **121**  
Log-in Review **16**

Remarks: **Narry in ICE**  
**all analyses in El Paso. LS 0485486**  
**except TKN in Lubbock 74**

Dry Weight Basis Required  
TRRP Report Required  
**(12)**



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 915-585-3443 FAX 915-585-4944  
 5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
 (BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Linda Armstrong  
 Dona Ana Dairies

Report Date: December 13, 2012

P.O. Box 10  
 Mesquite, NM, 88048

Work Order: 12120441



Project Location: Various Dairies, Dona Ana County, NM  
 Project Name: Dona Ana Dairies Consortium  
 Project #: DAD

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
315684	DAD-10	water	2012-12-04	08:57	2012-12-04
315685	DAD-09	water	2012-12-04	10:15	2012-12-04
315686	DAD-22	water	2012-12-04	11:28	2012-12-04
315687	DAD-21	water	2012-12-04	12:14	2012-12-04
315688	DAD-20	water	2012-12-04	13:09	2012-12-04
315689	DAD-15	water	2012-12-04	14:11	2012-12-04

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 24 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

**Notes:**

*For inorganic analyses, the term MQL should actually read PQL.*



*Michael Abel*

---

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

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## Case Narrative

Samples for project Dona Ana Dairies Consortium were received by TraceAnalysis, Inc. on 2012-12-04 and assigned to work order 12120441. Samples for work order 12120441 were received intact at a temperature of 3.0 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	82485	2012-12-05 at 18:50	97333	2012-12-05 at 18:50
Chloride (IC)	E 300.0	82490	2012-12-05 at 22:47	97338	2012-12-05 at 22:47
Chloride (IC)	E 300.0	82491	2012-12-06 at 02:45	97339	2012-12-06 at 02:45
NO3 (IC)	E 300.0	82485	2012-12-05 at 18:50	97333	2012-12-05 at 18:50
NO3 (IC)	E 300.0	82490	2012-12-05 at 22:47	97338	2012-12-05 at 22:47
NO3 (IC)	E 300.0	82491	2012-12-06 at 02:45	97339	2012-12-06 at 02:45
TDS	SM 2540C	82423	2012-12-06 at 09:00	97246	2012-12-06 at 09:00
TKN	SM 4500-NH3 B,C	82336	2012-12-06 at 08:21	97163	2012-12-06 at 12:36

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 12120441 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: 315684 - DAD-10**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97333 Date Analyzed: 2012-12-05 Analyzed By: JR  
 Prep Batch: 82485 Sample Preparation: 2012-12-05 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>434</b>	<b>434</b>	<2.09	mg/L	10	2.09	2.5	0.209

**Sample: 315684 - DAD-10**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97333 Date Analyzed: 2012-12-05 Analyzed By: JR  
 Prep Batch: 82485 Sample Preparation: 2012-12-05 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>4.33</b>	<b>4.33</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315684 - DAD-10**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97246 Date Analyzed: 2012-12-06 Analyzed By: DL  
 Prep Batch: 82423 Sample Preparation: 2012-12-06 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>1510</b>	<b>1510</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 315684 - DAD-10**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 97163 Date Analyzed: 2012-12-06 Analyzed By: AK  
 Prep Batch: 82336 Sample Preparation: 2012-12-06 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 315685 - DAD-09**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97333 Date Analyzed: 2012-12-05 Analyzed By: JR  
 Prep Batch: 82485 Sample Preparation: 2012-12-05 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>588</b>	<b>588</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 315685 - DAD-09**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97333 Date Analyzed: 2012-12-05 Analyzed By: JR  
 Prep Batch: 82485 Sample Preparation: 2012-12-05 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>33.1</b>	<b>33.1</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315685 - DAD-09**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97246 Date Analyzed: 2012-12-06 Analyzed By: DL  
 Prep Batch: 82423 Sample Preparation: 2012-12-06 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>2200</b>	<b>2200</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 315685 - DAD-09**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 97163 Date Analyzed: 2012-12-06 Analyzed By: AK  
 Prep Batch: 82336 Sample Preparation: 2012-12-06 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 315686 - DAD-22**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97338 Date Analyzed: 2012-12-05 Analyzed By: JR  
 Prep Batch: 82490 Sample Preparation: 2012-12-05 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Chloride		1	<b>886</b>	<b>886</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 315686 - DAD-22**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97338 Date Analyzed: 2012-12-05 Analyzed By: JR  
 Prep Batch: 82490 Sample Preparation: 2012-12-05 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>12.0</b>	<b>12.0</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315686 - DAD-22**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97246 Date Analyzed: 2012-12-06 Analyzed By: DL  
 Prep Batch: 82423 Sample Preparation: 2012-12-06 Prepared By: DL

*continued . . .*

*sample 315686 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>2740</b>	<b>2740</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 315686 - DAD-22**

Laboratory: Lubbock

Analysis: TKN

QC Batch: 97163

Prep Batch: 82336

Analytical Method: SM 4500-NH3 B,C

Date Analyzed: 2012-12-06

Sample Preparation: 2012-12-06

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 315687 - DAD-21**

Laboratory: El Paso

Analysis: Chloride (IC)

QC Batch: 97338

Prep Batch: 82490

Analytical Method: E 300.0

Date Analyzed: 2012-12-05

Sample Preparation: 2012-12-05

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>445</b>	<b>445</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 315687 - DAD-21**

Laboratory: El Paso

Analysis: NO3 (IC)

QC Batch: 97338

Prep Batch: 82490

Analytical Method: E 300.0

Date Analyzed: 2012-12-05

Sample Preparation: 2012-12-05

Prep Method: N/A

Analyzed By: JR

Prepared By: JR



Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>3.47</b>	<b>3.47</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315687 - DAD-21**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97246 Date Analyzed: 2012-12-06 Analyzed By: DL  
 Prep Batch: 82423 Sample Preparation: 2012-12-06 Prepared By: DL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>1720</b>	<b>1720</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 315687 - DAD-21**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 97163 Date Analyzed: 2012-12-06 Analyzed By: AK  
 Prep Batch: 82336 Sample Preparation: 2012-12-06 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 315688 - DAD-20**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97338 Date Analyzed: 2012-12-05 Analyzed By: JR  
 Prep Batch: 82490 Sample Preparation: 2012-12-05 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>704</b>	<b>704</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 315688 - DAD-20**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97338 Date Analyzed: 2012-12-05 Analyzed By: JR  
 Prep Batch: 82490 Sample Preparation: 2012-12-05 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	17.0	17.0	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315688 - DAD-20**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97246 Date Analyzed: 2012-12-06 Analyzed By: DL  
 Prep Batch: 82423 Sample Preparation: 2012-12-06 Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	2350	2350	<5.00	mg/L	1	5.00	5	5

**Sample: 315688 - DAD-20**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 97163 Date Analyzed: 2012-12-06 Analyzed By: AK  
 Prep Batch: 82336 Sample Preparation: 2012-12-06 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	0	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 315689 - DAD-15**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97339 Date Analyzed: 2012-12-06 Analyzed By: JR  
 Prep Batch: 82491 Sample Preparation: 2012-12-06 Prepared By: JR

*continued ...*

sample 315689 continued ...

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	484	484	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 315689 - DAD-15**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97339 Date Analyzed: 2012-12-06 Analyzed By: JR  
 Prep Batch: 82491 Sample Preparation: 2012-12-06 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	4.71	4.71	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315689 - DAD-15**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97246 Date Analyzed: 2012-12-06 Analyzed By: DL  
 Prep Batch: 82423 Sample Preparation: 2012-12-06 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	1810	1810	<5.00	mg/L	1	5.00	5	5

**Sample: 315689 - DAD-15**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 97163 Date Analyzed: 2012-12-06 Analyzed By: AK  
 Prep Batch: 82336 Sample Preparation: 2012-12-06 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

## Method Blanks

### Method Blank (1)

QC Batch: 97163  
Prep Batch: 82336Date Analyzed: 2012-12-06  
QC Preparation: 2012-12-06Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.72	mg/L	1.72

### Method Blank (1)

QC Batch: 97246  
Prep Batch: 82423Date Analyzed: 2012-12-06  
QC Preparation: 2012-12-06Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 97333  
Prep Batch: 82485Date Analyzed: 2012-12-05  
QC Preparation: 2012-12-05Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

### Method Blank (1)

QC Batch: 97333  
Prep Batch: 82485Date Analyzed: 2012-12-05  
QC Preparation: 2012-12-05Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

**Method Blank (1)**

QC Batch: 97338                      Date Analyzed: 2012-12-05                      Analyzed By: JR  
 Prep Batch: 82490                      QC Preparation: 2012-12-05                      Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	1.47	mg/L	0.209

**Method Blank (1)**

QC Batch: 97338                      Date Analyzed: 2012-12-05                      Analyzed By: JR  
 Prep Batch: 82490                      QC Preparation: 2012-12-05                      Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

**Method Blank (1)**

QC Batch: 97339                      Date Analyzed: 2012-12-06                      Analyzed By: JR  
 Prep Batch: 82491                      QC Preparation: 2012-12-06                      Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

**Method Blank (1)**

QC Batch: 97339                      Date Analyzed: 2012-12-06                      Analyzed By: JR  
 Prep Batch: 82491                      QC Preparation: 2012-12-06                      Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

**Duplicate (1)** Duplicated Sample: 315740

QC Batch: 97246  
 Prep Batch: 82423

Date Analyzed: 2012-12-06  
 QC Preparation: 2012-12-06

Analyzed By: DL  
 Prepared By: DL

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	7750	7650	mg/L	1	1	10

# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 97246  
Prep Batch: 82423Date Analyzed: 2012-12-06  
QC Preparation: 2012-12-06Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	991	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	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	983	mg/L	1	1000	<5.00	98	90 - 110	1	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: 315689

QC Batch: 97163  
Prep Batch: 82336Date Analyzed: 2012-12-06  
QC Preparation: 2012-12-06Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	44.1	mg/L	1	50.0	<1.72	87	10 - 151

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

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Kjeldahl Nitrogen - N		2	43.4	mg/L	1	50.0	<1.72	85	10 - 151	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: 315683

QC Batch: 97333  
Prep Batch: 82485Date Analyzed: 2012-12-05  
QC Preparation: 2012-12-05Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	1760	mg/L	55.6	1390	395	98	90 - 110

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

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1760	mg/L	55.6	1390	395	98	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: 315683

QC Batch: 97333 Date Analyzed: 2012-12-05 Analyzed By: JR  
 Prep Batch: 82485 QC Preparation: 2012-12-05 Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	258	mg/L	55.6	278	2.19	92	90 - 110

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

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	258	mg/L	55.6	278	2.19	92	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: 315687

QC Batch: 97338 Date Analyzed: 2012-12-05 Analyzed By: JR  
 Prep Batch: 82490 QC Preparation: 2012-12-05 Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	1820	mg/L	55.6	1390	445	99	90 - 110

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

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1820	mg/L	55.6	1390	445	99	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: 315687

QC Batch: 97338 Date Analyzed: 2012-12-05 Analyzed By: JR  
 Prep Batch: 82490 QC Preparation: 2012-12-05 Prepared By: JR



Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	257	mg/L	55.6	278	3.47	91	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
Nitrate-N		1	257	mg/L	55.6	278	3.47	91	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: 315689

QC Batch: 97339 Date Analyzed: 2012-12-06 Analyzed By: JR  
 Prep Batch: 82491 QC Preparation: 2012-12-06 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	1870	mg/L	55.6	1390	484	100	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	1870	mg/L	55.6	1390	484	100	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: 315689

QC Batch: 97339 Date Analyzed: 2012-12-06 Analyzed By: JR  
 Prep Batch: 82491 QC Preparation: 2012-12-06 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	258	mg/L	55.6	278	4.71	91	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
Nitrate-N		1	259	mg/L	55.6	278	4.71	91	90 - 110	0	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: 97163

Date Analyzed: 2012-12-06

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.62	92	85 - 115	2012-12-06

### Standard (CCV-1)

QC Batch: 97163

Date Analyzed: 2012-12-06

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.90	98	85 - 115	2012-12-06

### Standard (CCV-1)

QC Batch: 97333

Date Analyzed: 2012-12-05

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.3	97	90 - 110	2012-12-05

### Standard (CCV-1)

QC Batch: 97333

Date Analyzed: 2012-12-05

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.75	95	90 - 110	2012-12-05

**Standard (CCV-2)**

QC Batch: 97333 Date Analyzed: 2012-12-05 Analyzed By: JR

Param	F	C	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	2012-12-05

**Standard (CCV-2)**

QC Batch: 97333 Date Analyzed: 2012-12-05 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.70	94	90 - 110	2012-12-05

**Standard (CCV-1)**

QC Batch: 97338 Date Analyzed: 2012-12-05 Analyzed By: JR

Param	F	C	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	2012-12-05

**Standard (CCV-1)**

QC Batch: 97338 Date Analyzed: 2012-12-05 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.70	94	90 - 110	2012-12-05

**Standard (CCV-2)**

QC Batch: 97338 Date Analyzed: 2012-12-05 Analyzed By: JR

Report Date: December 13, 2012

Work Order: 12120441  
Dona Ana Dairies Consortium

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Various Dairies, Dona Ana County, NM

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Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.8	95	90 - 110	2012-12-05

---

**Standard (CCV-2)**

QC Batch: 97338

Date Analyzed: 2012-12-05

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.67	93	90 - 110	2012-12-05

---

**Standard (CCV-1)**

QC Batch: 97339

Date Analyzed: 2012-12-06

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.8	95	90 - 110	2012-12-06

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**Standard (CCV-1)**

QC Batch: 97339

Date Analyzed: 2012-12-06

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.67	93	90 - 110	2012-12-06

---

**Standard (CCV-2)**

QC Batch: 97339

Date Analyzed: 2012-12-06

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.8	95	90 - 110	2012-12-06

---

**Standard (CCV-2)**

QC Batch: 97339

Date Analyzed: 2012-12-06

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.67	93	90 - 110	2012-12-06

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## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.00	-
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.00	-
TKN	SM 4500-NH3 B,C	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

# 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	T104704221-12-3	El Paso
2	NELAP	T104704219-12-8	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 than 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.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
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.

# Trace Analysis, Inc.

email: lab@traceanalysis.com

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

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

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

Company Name: D'H Environ.  
 Address: (Street, City, Zip)  
1221 Tower Trail, El Paso, TX 79907  
 Contact Person: Victor Ayala  
 Invoice to: Dona Ana Dairies.  
 (If different from above) PO Box 10, Mesquite, N.M. 88048  
 Project #: 401362  
 Project Location (including state):  
Various Dairies, Dona Ana County, N.M.

Phone #: 915-859-8150  
 Fax #: \_\_\_\_\_  
 E-mail: Victor@DhRamp.com  
 Project Name: Dona Ana Dairies Consortium  
 Sampler Signature: Carol N. Rivera

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD				SAMPLING			
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE	TIME
315684	DAD-10	1	250mL X					X			X			12-4-12	8:57
1-2	DAD-10	1	250mL X					X			X			12-4-12	8:57
315685	DAD-09	1	250mL X					X			X			12-4-12	10:15
1-2	DAD-09	1	250mL X					X			X			12-4-12	10:15
315686	DAD-22	1	250mL X					X			X			12-4-12	11:28
1-2	DAD-22	1	250mL X					X			X			12-4-12	11:28
315687	DAD-21	1	250mL X					X			X			12-4-12	12:14
1-2	DAD-21	1	250mL X					X			X			12-4-12	12:14
315688	DAD-20	1	250mL X					X			X			12-4-12	13:09
1-2	DAD-20	1	250mL X					X			X			12-4-12	13:09

Relinquished by: Carol N. Rivera D'H Company: D'H Environ Date: 12-4-12 Time: 15:11  
 Relinquished by: Danny de Haro Company: D'H Environ Date: 12-4-12 Time: 15:11  
 Relinquished by: Danny de Haro Company: D'H Environ Date: 12-4-12 Time: 16:30

**ANALYSIS REQUEST**  
(Circle or Specify Method No.)

MTBE 8021 / 602 / 8260 / 624	
BTEX 8021 / 602 / 8260 / 624	
TPH 418.1 / TX1005 / TX1005 Ex(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	
PCBs 8082 / 608	
Pesticides 8081 / 608	
BOD, TSS, pH	
Moisture Content	
Cl, F1, S04, NO3, NO2, Alkalinity	
Na, Ca, Mg, K, TDS, EC	
Nitrates EPA 300	X
TKN EPA 300	X
TKN EPA 300	X
Chloride EPA 300	X
TDS SM 2540 C MOD	X
Turn Around Time if different from standard	

**LAB USE ONLY**

Intact  Y  N  
 Headspace  Y  N / NA

Log-in-Review  R-4-12

REMARKS: ICE

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



# Trace Analysis, Inc.

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

BioAquatic Testing  
 2501 Mayes Rd., Ste 100  
 Carrollton, Texas 75006  
 Tel (972) 242-7750  
 1 (888) 588-3443

email: lab@traceanalysis.com

Company Name: D&H Envision  
 Address: (Street, City, Zip) 221 Beaver Trail Ln. El Paso, TX 79907  
 Contact Person: Vicki Ayala  
 Invoice to: Doña Ann Dairies  
 (If different from above) PO. BOX 10, Mesquite, Nm. 88048  
 Project #: 401362  
 Project Location (including state): Various Dairies, Dona Ann County, Nm

Phone #: 915-859-8150  
 Fax #: \_\_\_\_\_  
 E-mail: vayala@dhpump.com

Project Name: Doña Ann Dairies Consortium  
 Sampler Signature: [Signature]

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX			PRESERVATIVE METHOD				SAMPLING			
				WATER	AIR	SOIL	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE
315689-1	DAP-15	1	250ml X					X					12-4-12	14:11
1-2	DAP-15	1	250ml X					X					12-4-12	14:11

ANALYSIS REQUEST  
 (Circle or Specify Method No.)

MTBE 8021 / 602 / 8260 / 624	
BTEX 8021 / 602 / 8260 / 624	
TPH 418.1 / TX1005 / TX1005 Ex(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, F1, S04, NO3, NO2, Alkalinity	
Na, Ca, Mg, K, TDS, EC	
Nitrates EPA 360	X
TKN SM 4500 NORG C	X
Chloride EPA 806	X
TDS SM 2540 C MOD	X

Turn Around Time if different from standard  
 Hold

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	REMARKS:
<u>Claydon R. B...</u>	<u>D&amp;H</u>	<u>12-4-12</u>	<u>15:11</u>	<u>Lanny d. Han</u>	<u>12-4-12</u>	<u>15:11</u>		INST 3 OBS 3 COR 3	<u>1CE</u> <u>(1)</u>
<u>Lanny d. Han</u>	<u>12-4-12</u>	<u>16:30</u>						INST OBS COR	

LAB USE ONLY

Intact  Headspace  Y/N/INA

Log-in-Review  12-4-12

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

Carrier # 48542087

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



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 915-585-3443 FAX 915-585-4944  
5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Jerry Settles  
Del Oro Dairy, LLC.  
1025 East O'Hara  
P.O. Box 1846  
Anthony, NM, 88021

Report Date: December 13, 2012

Work Order: 12120440



DP: 692  
Project Location: 1025 East OHara, Anthony, NM  
Project Name: Del Oro Dairy

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
315683	692-06	water	2012-12-04	08:11	2012-12-04

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 13 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

### Notes:

*For inorganic analyses, the term MQL should actually read PQL.*

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

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## Case Narrative

Samples for project Del Oro Dairy were received by TraceAnalysis, Inc. on 2012-12-04 and assigned to work order 12120440. Samples for work order 12120440 were received intact at a temperature of 3.0 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	82485	2012-12-05 at 18:50	97333	2012-12-05 at 18:50
NO3 (IC)	E 300.0	82485	2012-12-05 at 18:50	97333	2012-12-05 at 18:50
TDS	SM 2540C	82423	2012-12-06 at 09:00	97246	2012-12-06 at 09:00
TKN	SM 4500-NH3 B,C	82336	2012-12-06 at 08:21	97163	2012-12-06 at 12:36

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 12120440 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: 315683 - 692-06**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97333 Date Analyzed: 2012-12-05 Analyzed By: JR  
 Prep Batch: 82485 Sample Preparation: 2012-12-05 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>395</b>	<b>395</b>	<2.09	mg/L	10	2.09	2.5	0.209

**Sample: 315683 - 692-06**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97333 Date Analyzed: 2012-12-05 Analyzed By: JR  
 Prep Batch: 82485 Sample Preparation: 2012-12-05 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	J	1	<b>2.19</b>	<2.50	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315683 - 692-06**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97246 Date Analyzed: 2012-12-06 Analyzed By: DL  
 Prep Batch: 82423 Sample Preparation: 2012-12-06 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>1380</b>	<b>1380</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 315683 - 692-06**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 97163 Date Analyzed: 2012-12-06 Analyzed By: AK  
 Prep Batch: 82336 Sample Preparation: 2012-12-06 Prepared By: AK

---

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

---

## Method Blanks

### Method Blank (1)

QC Batch: 97163  
Prep Batch: 82336Date Analyzed: 2012-12-06  
QC Preparation: 2012-12-06Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.72	mg/L	1.72

### Method Blank (1)

QC Batch: 97246  
Prep Batch: 82423Date Analyzed: 2012-12-06  
QC Preparation: 2012-12-06Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 97333  
Prep Batch: 82485Date Analyzed: 2012-12-05  
QC Preparation: 2012-12-05Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

### Method Blank (1)

QC Batch: 97333  
Prep Batch: 82485Date Analyzed: 2012-12-05  
QC Preparation: 2012-12-05Analyzed By: JR  
Prepared By: JR

Report Date: December 13, 2012

Work Order: 12120440  
Del Oro Dairy

Page Number: 7 of 13  
1025 East OHara, Anthony, NM

---

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

---

**Duplicate (1)** Duplicated Sample: 315740

QC Batch: 97246

Date Analyzed: 2012-12-06

Analyzed By: DL

Prep Batch: 82423

QC Preparation: 2012-12-06

Prepared By: DL

---

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	7750	7650	mg/L	1	1	10

---



# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 97246  
Prep Batch: 82423Date Analyzed: 2012-12-06  
QC Preparation: 2012-12-06Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	991	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	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	983	mg/L	1	1000	<5.00	98	90 - 110	1	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: 315689

QC Batch: 97163  
Prep Batch: 82336Date Analyzed: 2012-12-06  
QC Preparation: 2012-12-06Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	44.1	mg/L	1	50.0	<1.72	87	10 - 151

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

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Kjeldahl Nitrogen - N		2	43.4	mg/L	1	50.0	<1.72	85	10 - 151	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: 315683

QC Batch: 97333  
Prep Batch: 82485Date Analyzed: 2012-12-05  
QC Preparation: 2012-12-05Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	1760	mg/L	55.6	1390	395	98	90 - 110

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

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1760	mg/L	55.6	1390	395	98	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: 315683

QC Batch: 97333  
Prep Batch: 82485

Date Analyzed: 2012-12-05  
QC Preparation: 2012-12-05

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	258	mg/L	55.6	278	2.19	92	90 - 110

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

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	258	mg/L	55.6	278	2.19	92	90 - 110	0	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: 97163

Date Analyzed: 2012-12-06

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.62	92	85 - 115	2012-12-06

### Standard (CCV-1)

QC Batch: 97163

Date Analyzed: 2012-12-06

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.90	98	85 - 115	2012-12-06

### Standard (CCV-1)

QC Batch: 97333

Date Analyzed: 2012-12-05

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.3	97	90 - 110	2012-12-05

### Standard (CCV-1)

QC Batch: 97333

Date Analyzed: 2012-12-05

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.75	95	90 - 110	2012-12-05

**Standard (CCV-2)**

QC Batch: 97333

Date Analyzed: 2012-12-05

Analyzed By: JR

Param	F	C	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	2012-12-05

**Standard (CCV-2)**

QC Batch: 97333

Date Analyzed: 2012-12-05

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.70	94	90 - 110	2012-12-05

---

## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.00	-
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.00	-
TKN	SM 4500-NH3 B,C	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

---

# 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	T104704221-12-3	El Paso
2	NELAP	T104704219-12-8	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 than 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.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
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.

**Company Name:** D&H Petroleum & Environmental Services  
**Address:** (Street, City, Zip) 1221 Tower Trail Ln, El Paso TX 79907  
**Contact Person:** Victor Ayala  
**Phone #:** 915-859-8150  
**Cell #:**  
**Fax #:**  
**E-mail:** vajala@dhpump.com  
**Project #:** 401369  
**Project Name:** Del Oro Dairy  
**Project Location (including state):** Del Oro Dairy, 1025 East O'Hara, Anthony, NM  
**Sampler Signature:** *Angel N. Perea*  
**Project Name:** Jerry Settles 575-882-4331  
**Del Oro Dairy**

LAB # (LAB USE ONLY)	Field Code	# Containers	Volume/Amount	MATRIX				PRESERVATIVE METHOD				DATE	SAMPLING TIME	Hold	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH				ICE
		1		X				X			X				
3156831	692-06	2		X				X			X				
L-2	692-06	1	250ml	X				X			X		12-4-12	8:11	
		1	250ml	X				X			X		12-4-12	8:11	

**ANALYSIS REQUEST**

MTBE 8021B/602	
BTEX 8021B/602	
TPH 418.1 / TX1005	
TX 1005 Extended (C35)	
PAH 8270C	
PAH 8270 (Low Level Analysis)	
Total Metals Ag As BA Cd Cr Pb Se Hg 6010B/200.7	
Nitrates EPA 300	X
TKN SM 4500 NORG C	X
Chloride EPA 300	X
Total Dissolved Solids SM 2540 C MOD	X
Turn Around Time	

**Remarks:** ① JS:48547687  
 ICE CHRY IN  
 Dry Weight Basis Required  
 TRRP Report Required  
 Lab Use Only Intact Y / N Headspace Y / N Temp 12.3/29 Log-in Review  
 Relinquished By: *Angel N. Perea* Date: 12-4-12 Time: 15:11  
 Received By: *Perry de Haro* Date: 12-4-12 Time: 15:11  
 Relinquished By: *Denny de Haro* Date: 12-4-12 Time: 16:30  
 Received At Laboratory By: *DA* Date: 12/5/12 Time: 8:45  
 12-4-12



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 915-585-3443 FAX 915-585-4944  
5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Jerry Settles  
Del Oro Dairy, LLC.  
1025 East O'Hara  
P.O. Box 1846  
Anthony, NM, 88021

Report Date: December 13, 2012

Work Order: 12113028



DP: 692  
Project Location: 1025 East OHara, Anthony, NM  
Project Name: Del Oro Dairy

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
315408	692-01	water	2012-11-30	12:15	2012-11-30
315409	692-02	water	2012-11-30	08:34	2012-11-30
315410	692-04	water	2012-11-30	07:41	2012-11-30
315411	692-07	water	2012-11-30	10:47	2012-11-30
315412	692-08	water	2012-11-30	11:38	2012-11-30

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 22 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

### Notes:

*For inorganic analyses, the term MQL should actually read PQL.*



*Michael Abel*

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

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## Case Narrative

Samples for project Del Oro Dairy were received by TraceAnalysis, Inc. on 2012-11-30 and assigned to work order 12113028. Samples for work order 12113028 were received intact at a temperature of 1.0 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	82470	2012-11-30 at 19:10	97318	2012-11-30 at 19:10
Chloride (IC)	E 300.0	82473	2012-11-30 at 23:22	97319	2012-11-30 at 23:22
Chloride (IC)	E 300.0	82482	2012-12-01 at 03:35	97328	2012-12-01 at 03:35
NO3 (IC)	E 300.0	82473	2012-11-30 at 23:22	97319	2012-11-30 at 23:22
NO3 (IC)	E 300.0	82482	2012-12-01 at 03:35	97328	2012-12-01 at 03:35
TDS	SM 2540C	82297	2012-12-03 at 09:45	97093	2012-12-03 at 09:45
TDS	SM 2540C	82347	2012-12-04 at 08:30	97156	2012-12-04 at 08:30
TKN	E 351.3	82284	2012-12-04 at 10:38	97097	2012-12-04 at 14:44

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 12113028 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: 315408 - 692-01**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97319 Date Analyzed: 2012-11-30 Analyzed By: JR  
 Prep Batch: 82473 Sample Preparation: 2012-11-30 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>821</b>	<b>821</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 315408 - 692-01**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97319 Date Analyzed: 2012-11-30 Analyzed By: JR  
 Prep Batch: 82473 Sample Preparation: 2012-11-30 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>117</b>	<b>117</b>	<0.290	mg/L	50	0.290	0.5	0.0058

**Sample: 315408 - 692-01**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97093 Date Analyzed: 2012-12-03 Analyzed By: DL  
 Prep Batch: 82297 Sample Preparation: 2012-12-03 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3490</b>	<b>3490</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 315408 - 692-01**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 97097 Date Analyzed: 2012-12-04 Analyzed By: AK  
 Prep Batch: 82284 Sample Preparation: 2012-12-04 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 315409 - 692-02**

Laboratory: El Paso  
 Analysis: Chloride (IC)                      Analytical Method: E 300.0                      Prep Method: N/A  
 QC Batch: 97328                                  Date Analyzed: 2012-12-01                      Analyzed By: JR  
 Prep Batch: 82482                                  Sample Preparation: 2012-12-01                      Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>358</b>	<b>358</b>	<2.09	mg/L	10	2.09	2.5	0.209

**Sample: 315409 - 692-02**

Laboratory: El Paso  
 Analysis: NO3 (IC)                                  Analytical Method: E 300.0                      Prep Method: N/A  
 QC Batch: 97328                                  Date Analyzed: 2012-12-01                      Analyzed By: JR  
 Prep Batch: 82482                                  Sample Preparation: 2012-12-01                      Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N	u	1	<0.0290	<2.50	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315409 - 692-02**

Laboratory: El Paso  
 Analysis: TDS    Analytical Method: SM 2540C                      Prep Method: N/A  
 QC Batch: 97093                                  Date Analyzed: 2012-12-03                      Analyzed By: DL  
 Prep Batch: 82297                                  Sample Preparation: 2012-12-03                      Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>1450</b>	<b>1450</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 315409 - 692-02**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 97097 Date Analyzed: 2012-12-04 Analyzed By: AK  
 Prep Batch: 82284 Sample Preparation: 2012-12-04 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 315410 - 692-04**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97328 Date Analyzed: 2012-12-01 Analyzed By: JR  
 Prep Batch: 82482 Sample Preparation: 2012-12-01 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>573</b>	<b>573</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 315410 - 692-04**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97328 Date Analyzed: 2012-12-01 Analyzed By: JR  
 Prep Batch: 82482 Sample Preparation: 2012-12-01 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>24.3</b>	<b>24.3</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315410 - 692-04**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97156 Date Analyzed: 2012-12-04 Analyzed By: DL  
 Prep Batch: 82347 Sample Preparation: 2012-12-04 Prepared By: DL

*continued . . .*

*sample 315410 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>2540</b>	<b>2540</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 315410 - 692-04**

Laboratory: Lubbock

Analysis: TKN

QC Batch: 97097

Prep Batch: 82284

Analytical Method: E 351.3

Date Analyzed: 2012-12-04

Sample Preparation: 2012-12-04

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 315411 - 692-07**

Laboratory: El Paso

Analysis: Chloride (IC)

QC Batch: 97328

Prep Batch: 82482

Analytical Method: E 300.0

Date Analyzed: 2012-12-01

Sample Preparation: 2012-12-01

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>535</b>	<b>535</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 315411 - 692-07**

Laboratory: El Paso

Analysis: NO3 (IC)

QC Batch: 97328

Prep Batch: 82482

Analytical Method: E 300.0

Date Analyzed: 2012-12-01

Sample Preparation: 2012-12-01

Prep Method: N/A

Analyzed By: JR

Prepared By: JR



Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>4.05</b>	<b>4.05</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315411 - 692-07**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97156 Date Analyzed: 2012-12-04 Analyzed By: DL  
 Prep Batch: 82347 Sample Preparation: 2012-12-04 Prepared By: DL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>1660</b>	<b>1660</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 315411 - 692-07**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 97097 Date Analyzed: 2012-12-04 Analyzed By: AK  
 Prep Batch: 82284 Sample Preparation: 2012-12-04 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 315412 - 692-08**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97318 Date Analyzed: 2012-11-30 Analyzed By: JR  
 Prep Batch: 82470 Sample Preparation: 2012-11-30 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>393</b>	<b>393</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 315412 - 692-08**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97328 Date Analyzed: 2012-12-01 Analyzed By: JR  
 Prep Batch: 82482 Sample Preparation: 2012-12-01 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N		1	11.7	11.7	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315412 - 692-08**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97156 Date Analyzed: 2012-12-04 Analyzed By: DL  
 Prep Batch: 82347 Sample Preparation: 2012-12-04 Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	1500	1500	<5.00	mg/L	1	5.00	5	5

**Sample: 315412 - 692-08**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 97097 Date Analyzed: 2012-12-04 Analyzed By: AK  
 Prep Batch: 82284 Sample Preparation: 2012-12-04 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

## Method Blanks

### Method Blank (1)

QC Batch: 97093  
Prep Batch: 82297Date Analyzed: 2012-12-03  
QC Preparation: 2012-12-03Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 97097  
Prep Batch: 82284Date Analyzed: 2012-12-04  
QC Preparation: 2012-12-04Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.72	mg/L	1.72

### Method Blank (1)

QC Batch: 97156  
Prep Batch: 82347Date Analyzed: 2012-12-04  
QC Preparation: 2012-12-04Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 97318  
Prep Batch: 82470Date Analyzed: 2012-11-30  
QC Preparation: 2012-11-30Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

---

**Method Blank (1)**QC Batch: 97319  
Prep Batch: 82473Date Analyzed: 2012-11-30  
QC Preparation: 2012-11-30Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

---

**Method Blank (1)**QC Batch: 97319  
Prep Batch: 82473Date Analyzed: 2012-11-30  
QC Preparation: 2012-11-30Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

---

**Method Blank (1)**QC Batch: 97328  
Prep Batch: 82482Date Analyzed: 2012-12-01  
QC Preparation: 2012-12-01Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

---

**Method Blank (1)**QC Batch: 97328  
Prep Batch: 82482Date Analyzed: 2012-12-01  
QC Preparation: 2012-12-01Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

**Duplicate (1)** Duplicated Sample: 315302QC Batch: 97093  
Prep Batch: 82297Date Analyzed: 2012-12-03  
QC Preparation: 2012-12-03Analyzed By: DL  
Prepared By: DL

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	28000	28900	mg/L	1	3	10

**Duplicate (1)** Duplicated Sample: 315581QC Batch: 97156  
Prep Batch: 82347Date Analyzed: 2012-12-04  
QC Preparation: 2012-12-04Analyzed By: DL  
Prepared By: DL

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	4720	4760	mg/L	1	1	10

# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 97093  
Prep Batch: 82297Date Analyzed: 2012-12-03  
QC Preparation: 2012-12-03Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	971	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	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	992	mg/L	1	1000	<5.00	99	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: 97156  
Prep Batch: 82347Date Analyzed: 2012-12-04  
QC Preparation: 2012-12-04Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	986	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	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	986	mg/L	1	1000	<5.00	99	90 - 110	0	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: 315412

QC Batch: 97097  
Prep Batch: 82284Date Analyzed: 2012-12-04  
QC Preparation: 2012-12-04Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	36.4	mg/L	1	50.0	<1.72	73	10 - 151

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

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Total Kjeldahl Nitrogen - N		2	43.4	mg/L	1	50.0	<1.72	87	10 - 151	18	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: 315300

QC Batch: 97318  
Prep Batch: 82470

Date Analyzed: 2012-11-30  
QC Preparation: 2012-11-30

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	1700	mg/L	55.6	1390	397	94	90 - 110

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

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1720	mg/L	55.6	1390	397	95	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: 315301

QC Batch: 97319  
Prep Batch: 82473

Date Analyzed: 2012-11-30  
QC Preparation: 2012-11-30

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	1750	mg/L	55.6	1390	425	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		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1740	mg/L	55.6	1390	425	95	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: 315301

QC Batch: 97319  
Prep Batch: 82473

Date Analyzed: 2012-11-30  
QC Preparation: 2012-11-30

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	266	mg/L	55.6	278	7.91	93	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
Nitrate-N		1	266	mg/L	55.6	278	7.91	93	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: 315409

QC Batch: 97328  
Prep Batch: 82482

Date Analyzed: 2012-12-01  
QC Preparation: 2012-12-01

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	1690	mg/L	55.6	1390	358	96	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	1690	mg/L	55.6	1390	358	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: 315409

QC Batch: 97328  
Prep Batch: 82482

Date Analyzed: 2012-12-01  
QC Preparation: 2012-12-01

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	261	mg/L	55.6	278	<0.322	94	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
Nitrate-N		1	259	mg/L	55.6	278	<0.322	93	90 - 110	1	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: 97097

Date Analyzed: 2012-12-04

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.48	90	85 - 115	2012-12-04

### Standard (CCV-1)

QC Batch: 97097

Date Analyzed: 2012-12-04

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.76	95	85 - 115	2012-12-04

### Standard (CCV-1)

QC Batch: 97318

Date Analyzed: 2012-11-30

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.6	94	90 - 110	2012-11-30

### Standard (CCV-2)

QC Batch: 97318

Date Analyzed: 2012-11-30

Analyzed By: JR

Param	F	C	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	2012-11-30

**Standard (CCV-1)**

QC Batch: 97319 Date Analyzed: 2012-11-30 Analyzed By: JR

Param	F	C	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	2012-11-30

**Standard (CCV-1)**

QC Batch: 97319 Date Analyzed: 2012-11-30 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.73	95	90 - 110	2012-11-30

**Standard (CCV-2)**

QC Batch: 97319 Date Analyzed: 2012-11-30 Analyzed By: JR

Param	F	C	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	2012-11-30

**Standard (CCV-2)**

QC Batch: 97319 Date Analyzed: 2012-11-30 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.71	94	90 - 110	2012-11-30

**Standard (CCV-1)**

QC Batch: 97328 Date Analyzed: 2012-12-01 Analyzed By: JR

Param	F	C	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	2012-12-01

**Standard (CCV-1)**

QC Batch: 97328

Date Analyzed: 2012-12-01

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.71	94	90 - 110	2012-12-01

**Standard (CCV-2)**

QC Batch: 97328

Date Analyzed: 2012-12-01

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.2	93	90 - 110	2012-12-01

**Standard (CCV-2)**

QC Batch: 97328

Date Analyzed: 2012-12-01

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.68	94	90 - 110	2012-12-01

---

## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.00	-
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.00	-
TKN	E 351.3	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

---

# 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	T104704221-12-3	El Paso
2	NELAP	T104704219-12-8	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 than 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.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
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.

6701 Aberdeen, Ste. 9  
Lubbock, TX 79424  
Tel (806) 794-1296  
Fax (806) 794-1298

# TraceAnalysis, Inc.

155 McCutcheon, Ste. H  
Paso, TX 79932  
Tel (915) 585-3443  
Fax (915) 585-4944

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 12113028

Company Name: D&H Petroleum & Environmental Services  
 Address: (Street, City, Zip) 1221 Tower Trail Ln, El Paso TX 79907  
 Contact Person: Victor Ayala  
 Phone #: 915-859-8150  
 Cell #:   
 Fax #:   
 E-mail: vayala@dhpump.com

Invoice to (if different from above):

Del Oro Dairy, PO Box 1846, Anthony, TX 88021

Project #: 401369  
 Project Name: Del Oro Dairy  
 Jerry Settles 575-882-4331

Project Location (including state):

Del Oro Dairy, 1025 East O'Hara, Anthony, NM

Sampler Signature: [Signature]

LAB #	Field Code	# Containers	Volume/Amount	MATRIX				PRESERVATIVE METHOD				Sampling			
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE	TIME
315408-1	692-01	1	250mL	X				X						11-30-12	12:15
315408-2	692-01	1	250mL	X				X						11-30-12	12:15
315409-1	692-02	1	250mL	X				X						11-30-12	8:34
315409-2	692-02	1	250mL	X				X						11-30-12	8:34
315410-1	692-04	1	250mL	X				X						11-30-12	7:41
315410-2	692-04	1	250mL	X				X						11-30-12	7:41
	692-06	1		X				X							
	692-06	1		X				X							
315411-1	692-07	1	250mL	X				X						11-30-12	10:47
315411-2	692-07	1	250mL	X				X						11-30-12	10:47
315412-1	692-08	1	250mL	X				X						11-30-12	11:38
315412-2	692-08	1	250mL	X				X						11-30-12	11:38

Relinquished By: [Signature] Date: 11-30-12 Time: 14:11

Received By: [Signature] Date: 12/12 Time: 9:15

Relinquished By: [Signature] Date: 11-30-12 Time: 14:11

Received at Laboratory By: Mark NMX Date: 12/12 Time: 9:15

Lab Use Only  
 Intact Y / N  
 Headspace Y / N  
 Temp 11.1 / 11.1  
 Log-in Review [Signature]

Remarks: W3, T.P.S.C. - EA

Dry Weight Basis Required  
 TRRP Report Required

### ANALYSIS REQUEST

Method	TPH 418.1 / TX1005	BTEX 8021B/602	MTBE 8021B/602	PAH 8270C	PAH 8270 (Low Level Analysis)	Total Metals Ag As BA Cd Cr Pb Se Hg 6010B/200.7	Nitrates EPA 300	TKN SM 4500 NORG C	Chloride EPA 300	Total Dissolved Solids SM 2540 C MOD
TX 1005 Extended (C35)							X			
TPH 418.1 / TX1005							X			
BTEX 8021B/602							X			
MTBE 8021B/602							X			
PAH 8270C							X			
PAH 8270 (Low Level Analysis)							X			
Total Metals Ag As BA Cd Cr Pb Se Hg 6010B/200.7							X			
Nitrates EPA 300							X			
TKN SM 4500 NORG C							X			
Chloride EPA 300							X			
Total Dissolved Solids SM 2540 C MOD							X			

Turn Around Time

Hold



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 915-585-3443 FAX 915-585-4944  
 5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
 (BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Jerry Settles  
 Del Oro Dairy, LLC.  
 1025 East O'Hara  
 P.O. Box 1846  
 Anthony, NM, 88021

Report Date: December 13, 2012

Work Order: 12112943



DP: 692  
 Project Location: 1025 East OHara, Anthony, NM  
 Project Name: Del Oro Dairy

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
315300	692-05	water	2012-11-29	14:33	2012-11-29
315301	692-09	water	2012-11-29	12:42	2012-11-29
315302	962 Lagoon	water	2012-11-29	14:07	2012-11-29

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 17 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

**Notes:**

*For inorganic analyses, the term MQL should actually read PQL.*

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

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## Case Narrative

Samples for project Del Oro Dairy were received by TraceAnalysis, Inc. on 2012-11-29 and assigned to work order 12112943. Samples for work order 12112943 were received intact at a temperature of 2.0 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	82470	2012-11-30 at 19:10	97318	2012-11-30 at 19:10
Chloride (IC)	E 300.0	82473	2012-11-30 at 23:22	97319	2012-11-30 at 23:22
NO3 (IC)	E 300.0	82470	2012-11-30 at 19:10	97318	2012-11-30 at 19:10
NO3 (IC)	E 300.0	82473	2012-11-30 at 23:22	97319	2012-11-30 at 23:22
TDS	SM 2540C	82297	2012-12-03 at 09:45	97093	2012-12-03 at 09:45
TKN	SM 4500-NH3 B,C	82249	2012-12-03 at 08:34	97063	2012-12-03 at 15:16

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 12112943 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: 315300 - 692-05**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97318 Date Analyzed: 2012-11-30 Analyzed By: JR  
 Prep Batch: 82470 Sample Preparation: 2012-11-30 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>397</b>	<b>397</b>	<2.09	mg/L	10	2.09	2.5	0.209

**Sample: 315300 - 692-05**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97318 Date Analyzed: 2012-11-30 Analyzed By: JR  
 Prep Batch: 82470 Sample Preparation: 2012-11-30 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N	J	1	<b>2.28</b>	<2.50	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315300 - 692-05**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97093 Date Analyzed: 2012-12-03 Analyzed By: DL  
 Prep Batch: 82297 Sample Preparation: 2012-12-03 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>1370</b>	<b>1370</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 315300 - 692-05**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 97063 Date Analyzed: 2012-12-03 Analyzed By: AK  
 Prep Batch: 82249 Sample Preparation: 2012-12-03 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 315301 - 692-09**

Laboratory: El Paso  
 Analysis: Chloride (IC)      Analytical Method: E 300.0      Prep Method: N/A  
 QC Batch: 97319      Date Analyzed: 2012-11-30      Analyzed By: JR  
 Prep Batch: 82473      Sample Preparation: 2012-11-30      Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>425</b>	<b>425</b>	<2.09	mg/L	10	2.09	2.5	0.209

**Sample: 315301 - 692-09**

Laboratory: El Paso  
 Analysis: NO3 (IC)      Analytical Method: E 300.0      Prep Method: N/A  
 QC Batch: 97319      Date Analyzed: 2012-11-30      Analyzed By: JR  
 Prep Batch: 82473      Sample Preparation: 2012-11-30      Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>7.91</b>	<b>7.91</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315301 - 692-09**

Laboratory: El Paso  
 Analysis: TDS      Analytical Method: SM 2540C      Prep Method: N/A  
 QC Batch: 97093      Date Analyzed: 2012-12-03      Analyzed By: DL  
 Prep Batch: 82297      Sample Preparation: 2012-12-03      Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>1410</b>	<b>1410</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 315301 - 692-09**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 97063 Date Analyzed: 2012-12-03 Analyzed By: AK  
 Prep Batch: 82249 Sample Preparation: 2012-12-03 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N		2	<b>13.3</b>	<b>13.3</b>	<1.72	mg/L	1	1.72	10	1.72

**Sample: 315302 - 962 Lagoon**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97319 Date Analyzed: 2012-11-30 Analyzed By: JR  
 Prep Batch: 82473 Sample Preparation: 2012-11-30 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Chloride		1	<b>3200</b>	<b>3200</b>	<20.9	mg/L	100	20.9	2.5	0.209

**Sample: 315302 - 962 Lagoon**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97319 Date Analyzed: 2012-11-30 Analyzed By: JR  
 Prep Batch: 82473 Sample Preparation: 2012-11-30 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N	J	1	<b>1.23</b>	<2.50	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315302 - 962 Lagoon**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97093 Date Analyzed: 2012-12-03 Analyzed By: DL  
 Prep Batch: 82297 Sample Preparation: 2012-12-03 Prepared By: DL

*continued . . .*

sample 315302 continued ...

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>28900</b>	<b>28900</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 315302 - 962 Lagoon**

Laboratory: Lubbock  
Analysis: TKN  
QC Batch: 97063  
Prep Batch: 82249

Analytical Method: SM 4500-NH3 B,C  
Date Analyzed: 2012-12-03  
Sample Preparation: 2012-12-03

Prep Method: N/A  
Analyzed By: AK  
Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N		2	<b>1030</b>	<b>1030</b>	<3.44	mg/L	2	3.44	10	1.72

## Method Blanks

### Method Blank (1)

QC Batch: 97063  
Prep Batch: 82249Date Analyzed: 2012-12-03  
QC Preparation: 2012-12-03Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.72	mg/L	1.72

### Method Blank (1)

QC Batch: 97093  
Prep Batch: 82297Date Analyzed: 2012-12-03  
QC Preparation: 2012-12-03Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 97318  
Prep Batch: 82470Date Analyzed: 2012-11-30  
QC Preparation: 2012-11-30Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

### Method Blank (1)

QC Batch: 97318  
Prep Batch: 82470Date Analyzed: 2012-11-30  
QC Preparation: 2012-11-30Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	0.296	mg/L	0.0058

**Method Blank (1)**QC Batch: 97319  
Prep Batch: 82473Date Analyzed: 2012-11-30  
QC Preparation: 2012-11-30Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

**Method Blank (1)**QC Batch: 97319  
Prep Batch: 82473Date Analyzed: 2012-11-30  
QC Preparation: 2012-11-30Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

**Duplicate (1)** Duplicated Sample: 315302QC Batch: 97093  
Prep Batch: 82297Date Analyzed: 2012-12-03  
QC Preparation: 2012-12-03Analyzed By: DL  
Prepared By: DL

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	28000	28900	mg/L	1	3	10

# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 97093  
Prep Batch: 82297Date Analyzed: 2012-12-03  
QC Preparation: 2012-12-03Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	971	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	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	992	mg/L	1	1000	<5.00	99	90 - 110	2	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: 315301

QC Batch: 97063  
Prep Batch: 82249Date Analyzed: 2012-12-03  
QC Preparation: 2012-12-03Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	60.2	mg/L	1	50.0	13.3	94	10 - 151

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

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Kjeldahl Nitrogen - N		2	59.5	mg/L	1	50.0	13.3	92	10 - 151	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: 315300

QC Batch: 97318  
Prep Batch: 82470Date Analyzed: 2012-11-30  
QC Preparation: 2012-11-30Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	1700	mg/L	55.6	1390	397	94	90 - 110

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



Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1720	mg/L	55.6	1390	397	95	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: 315300

QC Batch: 97318 Date Analyzed: 2012-11-30 Analyzed By: JR  
 Prep Batch: 82470 QC Preparation: 2012-11-30 Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	260	mg/L	55.6	278	2.28	93	90 - 110

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

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	260	mg/L	55.6	278	2.28	93	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: 315301

QC Batch: 97319 Date Analyzed: 2012-11-30 Analyzed By: JR  
 Prep Batch: 82473 QC Preparation: 2012-11-30 Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	1750	mg/L	55.6	1390	425	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		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1740	mg/L	55.6	1390	425	95	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: 315301

QC Batch: 97319 Date Analyzed: 2012-11-30 Analyzed By: JR  
 Prep Batch: 82473 QC Preparation: 2012-11-30 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	266	mg/L	55.6	278	7.91	93	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
Nitrate-N		1	266	mg/L	55.6	278	7.91	93	90 - 110	0	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: 97063

Date Analyzed: 2012-12-03

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.90	98	85 - 115	2012-12-03

### Standard (CCV-1)

QC Batch: 97063

Date Analyzed: 2012-12-03

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.76	95	85 - 115	2012-12-03

### Standard (CCV-1)

QC Batch: 97318

Date Analyzed: 2012-11-30

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.6	94	90 - 110	2012-11-30

### Standard (CCV-1)

QC Batch: 97318

Date Analyzed: 2012-11-30

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.76	95	90 - 110	2012-11-30

**Standard (CCV-2)**

QC Batch: 97318 Date Analyzed: 2012-11-30 Analyzed By: JR

Param	F	C	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	2012-11-30

**Standard (CCV-2)**

QC Batch: 97318 Date Analyzed: 2012-11-30 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.73	95	90 - 110	2012-11-30

**Standard (CCV-1)**

QC Batch: 97319 Date Analyzed: 2012-11-30 Analyzed By: JR

Param	F	C	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	2012-11-30

**Standard (CCV-1)**

QC Batch: 97319 Date Analyzed: 2012-11-30 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.73	95	90 - 110	2012-11-30

**Standard (CCV-2)**

QC Batch: 97319 Date Analyzed: 2012-11-30 Analyzed By: JR

Report Date: December 13, 2012

Work Order: 12112943  
Del Oro Dairy

Page Number: 15 of 17  
1025 East OHara, Anthony, NM

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Param	F	C	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	2012-11-30

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**Standard (CCV-2)**

QC Batch: 97319

Date Analyzed: 2012-11-30

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.71	94	90 - 110	2012-11-30

---

---

## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.00	-
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.00	-
TKN	SM 4500-NH3 B,C	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

---

# 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	T104704221-12-3	El Paso
2	NELAP	T104704219-12-8	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 than 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.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
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.

6701 Aberdeen, Ste. 9  
Lubbock, TX 79424  
Tel (806) 794-1296  
Fax (806) 794-1298

# TraceAnalysis, Inc.

155 McCutcheon, Ste. H El  
Paso, TX 79932  
Tel (915) 585-3443  
Fax (915) 585-4944

Company Name: D&H Petroleum & Environmental Services  
Address: (Street, City, Zip) 1221 Tower Trail Ln, El Paso TX 79907  
Contact Person: Victor Ayala  
Phone #: 915-859-8150  
Cell #: 915-859-8150  
Fax #: 915-859-8150  
E-mail: vayala@dhpump.com

Invoice to (if different from above):  
Del Oro Dairy, PO Box 1846, Anthony, TX 88021  
Project #: 401369  
Project Name: Del Oro Dairy  
Sampler Signature: [Signature]

Project Location (including state):  
Del Oro Dairy, 1025 East O'Hara, Anthony, NM

LAB # (LAB USE ONLY)	Field Code	# Containers	Volume/Amount	MATRIX			PRESERVATIVE METHOD				Sampling		TIME			
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NAOH	ICE		NONE	DATE	TIME
	692-01	1		X				X			X					
	692-01	1		X				X			X					
	692-02	1		X				X			X					
	692-02	1		X				X			X					
	692-04	1		X				X			X					
	692-04	1		X				X			X					
	692-05	1	250ml	X				X			X					11-29-12 14:33
	692-05	1	250ml	X				X			X					11-29-12 14:33
	692-06	1		X				X			X					
	692-06	1		X				X			X					
	692-07	1		X				X			X					
	692-07	1		X				X			X					
	692-08	1		X				X			X					
	692-08	1		X				X			X					
	692-09	1	250 ml	X				X			X					11-29-12 12:42
	692-09	1	250 ml	X				X			X					11-29-12 12:42

Relinquished By: [Signature] Date: 11-29-12 Time: 15:03  
 Relinquished By: [Signature] Date: 11-29-12 Time: 15:03  
 Received By: [Signature] Date: 11-29-12 Time: 15:03  
 Received By: [Signature] Date: 11-29-12 Time: 15:03

Lab Use Only  
 Intact  N  
 Headspace Y / N Y / N  
 Temp 21.2 C  
 Log-in Review 2012/11/29

Remarks: WPS TDS, CI, NO<sub>3</sub> in E9  
US: 48542679  
 Dry Weight Basis Required  
 TRRP Report Required

LAB Order ID # 12112943

ANALYSIS REQUEST

MTBE 8021B/602	
BTEX 8021B/602	
TPH 418.1 / TX1005	
TX 1005 Extended (C35)	
PAH 8270C	
PAH 8270 (Low Level Analysis)	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	
Nitrates EPA 300	X
TKN SM 4500 NORG C	X
Chloride EPA 300	X
Total Dissolved Solids SM 2540 C MOD	X

Turn Around Time





8701 Aberdeen, Ste. 9  
Lubbock, TX 79424  
Tel (806) 794-1296  
Fax (806) 794-1298

# TraceAnalysis, Inc.

155 McCutcheon, Ste. H El  
Paso, TX 79932  
Tel (915) 585-3443  
Fax (915) 585-4944

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 12112943

Phone #: 915-859-8150  
Cell #: \_\_\_\_\_

Company Name: D&H Petroleum & Environmental Services

Address: (Street, City, Zip)

1221 Tower Trail Ln, El Paso TX 79907

Contact Person: Victor Ayala

E-mail: vajala@dhpump.com

Invoice to (if different from above):

Del Oro Dairy, PO Box 1846, Anthony, TX 88021

Project #: 401369

Jerry Settles 575-882-4331

Project Name: Del Oro Dairy

Project Location (including state):

Del Oro Dairy, 1025 East O'Hara, Anthony, NM

Sampler Signature: *[Signature]*

LAB #	Field Code	# Containers	Volume/Amount	MATRIX			PRESERVATIVE METHOD				SAMPLING			
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE
692-01		1		X				X		X				
692-01		1		X				X		X				
692-02		1		X				X		X				
692-02		1		X				X		X				
692-04		1		X				X		X				
692-05		1	250ml	X				X		X			11-29-12	14:33
692-05		1	250ml	X				X		X			11-29-12	14:33
692-06		1		X				X		X				
692-06		1		X				X		X				
692-07		1		X				X		X				
692-07		1		X				X		X				
692-06		1		X				X		X				
692-08		1		X				X		X				
692-09		1	250ml	X				X		X			11-29-12	12:42
692-09		1	250ml	X				X		X			11-29-12	12:42

Relinquished By: *[Signature]* Date: 11-29-12 Time: 15:03

Received By: *[Signature]* Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received at Laboratory By: *[Signature]* Date: 11-29-12 Time: 15:03

Lab Use Only  
Intact Y / N  
Headspace Y / N  
Temp 21.2 C/Ce  
Log-in Review 2012/11/29

Remarks: PHOS-TDS, Cl, NO<sub>3</sub> in EP  
US: 48549619

### ANALYSIS REQUEST

MTBE 8021B/602	
BTEX 8021B/602	
TPH 418.1 / TX1005	
TX 1005 Extended (C35)	
PAH 8270C	
PAH 8270 (Low Level Analysis)	
Total Metals Ag As BA Cd Cr Pb Se Hg 6010B/200.7	X
Nitrates EPA 300	X
TKN SM 4500 NORG C	X
Chloride EPA 300	X
Total Dissolved Solids SM 2540 C MOD	X
Turn Around Time	
Hold	

Dry Weight Basis Required  
TRRP Report Required

# TraceAnalysis, Inc.

155 McCutcheon, Ste. H El Paso, TX 79932  
Tel (915) 585-3443  
Fax (915) 585-4944

LAB Order ID # 12112943

Company Name: D&H Petroleum & Environmental Services  
Phone #: 915-859-8150  
Cell #:   
Fax #:   
E-mail: vajala@dhpump.com

Address: (Street, City, Zip)  
1221 Tower Trail Ln, El Paso TX 79907  
Contact Person: Victor Ayala

Invoice to (if different from above):  
Del Oro Dairy, PO Box 1846, Anthony, TX 88021  
Project #: 401369

Project Name: Jerry Settles 575-882-4331  
Del Oro Dairy

Sampler Signature: *Jerry Settles*

LAB #	Field Code	# Containers	Volume/Amount	MATRIX				PRESERVATIVE METHOD				SAMPLING			
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE	TIME
3153024	692 Lagoon	1	250mL	X						X				11-29-12	14:07
1-2	692 Lagoon	1	250mL	X						X				11-29-12	14:07

Project Location (including state): Del Oro Dairy, 1025 East O'Hara, Anthony, NM

Relinquished By: *Jerry Settles* Date: 11-29-12 Time: 15:03

Received By: *Jerry Settles* Date: 11-29-12 Time: 15:03

Lab Use Only: Intact  Y  N

Headspace  Y  N

Temp *2/2*   *11/24/12*

Log-in Review   *11/24/12*

Remarks: *PAHs, NO<sub>3</sub>, CI*

TX 1005 Extended (C35)   *PAH 8270C*

TPH 418.1 / TX1005   *PAH 8270 (Low Level Analysis)*

BTEX 8021B/602   *TKN SM 4500 NORGC*

MTBE 8021B/602   *Chloride EPA 300*

Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7   *Total Dissolved Solids SM 2540 C MOD*

PAH 8270C   *Nitrates EPA 300*

TX 1005 Extended (C35)   *TKN SM 4500 NORGC*

TPH 418.1 / TX1005   *Chloride EPA 300*

BTEX 8021B/602   *Total Dissolved Solids SM 2540 C MOD*

MTBE 8021B/602   *PAH 8270 (Low Level Analysis)*

TPH 418.1 / TX1005   *Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7*

Nitrates EPA 300   *TKN SM 4500 NORGC*

Chloride EPA 300   *Chloride EPA 300*

Total Dissolved Solids SM 2540 C MOD   *Total Dissolved Solids SM 2540 C MOD*



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      915-585-3443      FAX 915-585-4944  
 5002 Basin Street, Suite A1      Midland, Texas 79703      432-689-6301      FAX 432-689-6313  
 (BioAquatic) 2501 Mayes Rd., Suite 100      Carrollton, Texas 75006      972-242-7750  
 E-Mail: lab@traceanalysis.com      WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Linda Armstrong  
 Dona Ana Dairies

Report Date: December 18, 2012

P.O. Box 10  
 Mesquite, NM, 88048

Work Order: 12120540



Project Location: Various Dairies, Dona Ana County, NM  
 Project Name: Dona Ana Dairies Consortium  
 Project #: DAD

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
315779	DAD-04	water	2012-12-05	07:31	2012-12-05
315780	DAD-05	water	2012-12-05	09:04	2012-12-05
315781	DAD-06	water	2012-12-05	13:50	2012-12-05
315782	DAD-07	water	2012-12-05	14:33	2012-12-05
315783	DAD-08	water	2012-12-05	11:57	2012-12-05
315784	DAD-16	water	2012-12-05	08:31	2012-12-05
315785	DAD-17	water	2012-12-05	09:45	2012-12-05
315786	DAD-18	water	2012-12-05	10:53	2012-12-05
315787	DAD-19	water	2012-12-05	13:10	2012-12-05

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 30 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

**Notes:**

*For inorganic analyses, the term MQL should actually read PQL.*

*Blair Leftwich*

---

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

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## Case Narrative

Samples for project Dona Ana Dairies Consortium were received by TraceAnalysis, Inc. on 2012-12-05 and assigned to work order 12120540. Samples for work order 12120540 were received intact at a temperature of 3.0 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	82491	2012-12-06 at 02:45	97339	2012-12-06 at 02:45
Chloride (IC)	E 300.0	82541	2012-12-06 at 19:05	97396	2012-12-06 at 19:05
Chloride (IC)	E 300.0	82542	2012-12-06 at 23:02	97397	2012-12-06 at 23:02
Chloride (IC)	E 300.0	82547	2012-12-07 at 03:00	97402	2012-12-07 at 03:00
NO3 (IC)	E 300.0	82491	2012-12-06 at 02:45	97339	2012-12-06 at 02:45
NO3 (IC)	E 300.0	82541	2012-12-06 at 19:05	97396	2012-12-06 at 19:05
NO3 (IC)	E 300.0	82542	2012-12-06 at 23:02	97397	2012-12-06 at 23:02
NO3 (IC)	E 300.0	82547	2012-12-07 at 03:00	97402	2012-12-07 at 03:00
TDS	SM 2540C	82424	2012-12-06 at 09:00	97247	2012-12-06 at 09:00
TKN	SM 4500-NH3 B,C	82366	2012-12-07 at 08:19	97209	2012-12-07 at 14:03

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 12120540 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: 315779 - DAD-04**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97339 Date Analyzed: 2012-12-06 Analyzed By: JR  
 Prep Batch: 82491 Sample Preparation: 2012-12-06 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>545</b>	<b>545</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 315779 - DAD-04**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97339 Date Analyzed: 2012-12-06 Analyzed By: JR  
 Prep Batch: 82491 Sample Preparation: 2012-12-06 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>2.74</b>	<b>2.74</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315779 - DAD-04**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97247 Date Analyzed: 2012-12-06 Analyzed By: DL  
 Prep Batch: 82424 Sample Preparation: 2012-12-06 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>2430</b>	<b>2430</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 315779 - DAD-04**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 97209 Date Analyzed: 2012-12-07 Analyzed By: AK  
 Prep Batch: 82366 Sample Preparation: 2012-12-07 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 315780 - DAD-05**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97396 Date Analyzed: 2012-12-06 Analyzed By: JR  
 Prep Batch: 82541 Sample Preparation: 2012-12-06 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>690</b>	<b>690</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 315780 - DAD-05**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97396 Date Analyzed: 2012-12-06 Analyzed By: JR  
 Prep Batch: 82541 Sample Preparation: 2012-12-06 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N	qs	1	<b>3.35</b>	<b>3.35</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315780 - DAD-05**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97247 Date Analyzed: 2012-12-06 Analyzed By: DL  
 Prep Batch: 82424 Sample Preparation: 2012-12-06 Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>2930</b>	<b>2930</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 315780 - DAD-05**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 97209 Date Analyzed: 2012-12-07 Analyzed By: AK  
 Prep Batch: 82366 Sample Preparation: 2012-12-07 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 315781 - DAD-06**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97396 Date Analyzed: 2012-12-06 Analyzed By: JR  
 Prep Batch: 82541 Sample Preparation: 2012-12-06 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Chloride		1	<b>439</b>	<b>439</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 315781 - DAD-06**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97396 Date Analyzed: 2012-12-06 Analyzed By: JR  
 Prep Batch: 82541 Sample Preparation: 2012-12-06 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N	qs	1	<b>8.25</b>	<b>8.25</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315781 - DAD-06**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97247 Date Analyzed: 2012-12-06 Analyzed By: DL  
 Prep Batch: 82424 Sample Preparation: 2012-12-06 Prepared By: DL

*continued . . .*

*sample 315781 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>1610</b>	<b>1610</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 315781 - DAD-06**

Laboratory: Lubbock

Analysis: TKN

QC Batch: 97209

Prep Batch: 82366

Analytical Method: SM 4500-NH3 B,C

Date Analyzed: 2012-12-07

Sample Preparation: 2012-12-07

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 315782 - DAD-07**

Laboratory: El Paso

Analysis: Chloride (IC)

QC Batch: 97396

Prep Batch: 82541

Analytical Method: E 300.0

Date Analyzed: 2012-12-06

Sample Preparation: 2012-12-06

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>718</b>	<b>718</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 315782 - DAD-07**

Laboratory: El Paso

Analysis: NO3 (IC)

QC Batch: 97396

Prep Batch: 82541

Analytical Method: E 300.0

Date Analyzed: 2012-12-06

Sample Preparation: 2012-12-06

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	qs	1	<b>8.03</b>	<b>8.03</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315782 - DAD-07**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97247 Date Analyzed: 2012-12-06 Analyzed By: DL  
 Prep Batch: 82424 Sample Preparation: 2012-12-06 Prepared By: DL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>2610</b>	<b>2610</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 315782 - DAD-07**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 97209 Date Analyzed: 2012-12-07 Analyzed By: AK  
 Prep Batch: 82366 Sample Preparation: 2012-12-07 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 315783 - DAD-08**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97397 Date Analyzed: 2012-12-06 Analyzed By: JR  
 Prep Batch: 82542 Sample Preparation: 2012-12-06 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>2270</b>	<b>2270</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 315783 - DAD-08**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97397 Date Analyzed: 2012-12-06 Analyzed By: JR  
 Prep Batch: 82542 Sample Preparation: 2012-12-06 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N	Qs	1	40.2	40.2	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315783 - DAD-08**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97247 Date Analyzed: 2012-12-06 Analyzed By: DL  
 Prep Batch: 82424 Sample Preparation: 2012-12-06 Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	5980	5980	<5.00	mg/L	1	5.00	5	5

**Sample: 315783 - DAD-08**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 97209 Date Analyzed: 2012-12-07 Analyzed By: AK  
 Prep Batch: 82366 Sample Preparation: 2012-12-07 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 315784 - DAD-16**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97397 Date Analyzed: 2012-12-06 Analyzed By: JR  
 Prep Batch: 82542 Sample Preparation: 2012-12-06 Prepared By: JR

*continued ...*

sample 315784 continued ...

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>529</b>	<b>529</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 315784 - DAD-16**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97397 Date Analyzed: 2012-12-06 Analyzed By: JR  
 Prep Batch: 82542 Sample Preparation: 2012-12-06 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	J,Qs	1	<b>2.42</b>	<2.50	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315784 - DAD-16**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97247 Date Analyzed: 2012-12-06 Analyzed By: DL  
 Prep Batch: 82424 Sample Preparation: 2012-12-06 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>2280</b>	<b>2280</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 315784 - DAD-16**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 97209 Date Analyzed: 2012-12-07 Analyzed By: AK  
 Prep Batch: 82366 Sample Preparation: 2012-12-07 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 315785 - DAD-17**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97397 Date Analyzed: 2012-12-06 Analyzed By: JR  
 Prep Batch: 82542 Sample Preparation: 2012-12-06 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>230</b>	<b>230</b>	<2.09	mg/L	10	2.09	2.5	0.209

**Sample: 315785 - DAD-17**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97397 Date Analyzed: 2012-12-06 Analyzed By: JR  
 Prep Batch: 82542 Sample Preparation: 2012-12-06 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	J,Qs	1	<b>2.28</b>	<2.50	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315785 - DAD-17**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97247 Date Analyzed: 2012-12-06 Analyzed By: DL  
 Prep Batch: 82424 Sample Preparation: 2012-12-06 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>1260</b>	<b>1260</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 315785 - DAD-17**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 97209 Date Analyzed: 2012-12-07 Analyzed By: AK  
 Prep Batch: 82366 Sample Preparation: 2012-12-07 Prepared By: AK

*continued ...*



sample 315785 continued ...

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 315786 - DAD-18**

Laboratory: El Paso  
 Analysis: Chloride (IC)                      Analytical Method: E 300.0                      Prep Method: N/A  
 QC Batch: 97402                                  Date Analyzed: 2012-12-07                      Analyzed By: JR  
 Prep Batch: 82547                                  Sample Preparation: 2012-12-07                      Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>643</b>	<b>643</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 315786 - DAD-18**

Laboratory: El Paso  
 Analysis: NO3 (IC)                                  Analytical Method: E 300.0                      Prep Method: N/A  
 QC Batch: 97402                                  Date Analyzed: 2012-12-07                      Analyzed By: JR  
 Prep Batch: 82547                                  Sample Preparation: 2012-12-07                      Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	qs	1	<b>10.1</b>	<b>10.1</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315786 - DAD-18**

Laboratory: El Paso  
 Analysis: TDS    Analytical Method: SM 2540C                      Prep Method: N/A  
 QC Batch: 97247                                  Date Analyzed: 2012-12-06                      Analyzed By: DL  
 Prep Batch: 82424                                  Sample Preparation: 2012-12-06                      Prepared By: DL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>2690</b>	<b>2690</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 315786 - DAD-18**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 97209 Date Analyzed: 2012-12-07 Analyzed By: AK  
 Prep Batch: 82366 Sample Preparation: 2012-12-07 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 315787 - DAD-19**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97402 Date Analyzed: 2012-12-07 Analyzed By: JR  
 Prep Batch: 82547 Sample Preparation: 2012-12-07 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>851</b>	<b>851</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 315787 - DAD-19**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97402 Date Analyzed: 2012-12-07 Analyzed By: JR  
 Prep Batch: 82547 Sample Preparation: 2012-12-07 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	qs	1	<b>54.2</b>	<b>54.2</b>	<0.0580	mg/L	10	0.0580	0.5	0.0058

**Sample: 315787 - DAD-19**

Laboratory: El Paso  
 Analysis: TDS  
 QC Batch: 97247  
 Prep Batch: 82424

Analytical Method: SM 2540C  
 Date Analyzed: 2012-12-06  
 Sample Preparation: 2012-12-06

Prep Method: N/A  
 Analyzed By: DL  
 Prepared By: DL

Parameter	F	C	SDL	ML	Method	Units	Dilution	SDL	ML	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3230</b>	<b>3230</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 315787 - DAD-19**

Laboratory: Lubbock  
 Analysis: TKN  
 QC Batch: 97209  
 Prep Batch: 82366

Analytical Method: SM 4500-NH3 B,C  
 Date Analyzed: 2012-12-07  
 Sample Preparation: 2012-12-07

Prep Method: N/A  
 Analyzed By: AK  
 Prepared By: AK

Parameter	F	C	SDL	ML	Method	Units	Dilution	SDL	ML	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N		2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

## Method Blanks

### Method Blank (1)

QC Batch: 97209  
Prep Batch: 82366Date Analyzed: 2012-12-07  
QC Preparation: 2012-12-07Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.72	mg/L	1.72

### Method Blank (1)

QC Batch: 97247  
Prep Batch: 82424Date Analyzed: 2012-12-06  
QC Preparation: 2012-12-06Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 97339  
Prep Batch: 82491Date Analyzed: 2012-12-06  
QC Preparation: 2012-12-06Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

### Method Blank (1)

QC Batch: 97339  
Prep Batch: 82491Date Analyzed: 2012-12-06  
QC Preparation: 2012-12-06Analyzed By: JR  
Prepared By: JR

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Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

---

**Method Blank (1)**

QC Batch: 97396                      Date Analyzed: 2012-12-06                      Analyzed By: JR  
Prep Batch: 82541                      QC Preparation: 2012-12-06                      Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	1.46	mg/L	0.209

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**Method Blank (1)**

QC Batch: 97396                      Date Analyzed: 2012-12-06                      Analyzed By: JR  
Prep Batch: 82541                      QC Preparation: 2012-12-06                      Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	0.218	mg/L	0.0058

---

**Method Blank (1)**

QC Batch: 97397                      Date Analyzed: 2012-12-06                      Analyzed By: JR  
Prep Batch: 82542                      QC Preparation: 2012-12-06                      Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	1.47	mg/L	0.209

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**Method Blank (1)**

QC Batch: 97397                      Date Analyzed: 2012-12-06                      Analyzed By: JR  
Prep Batch: 82542                      QC Preparation: 2012-12-06                      Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	0.122	mg/L	0.0058

**Method Blank (1)**

QC Batch: 97402                                      Date Analyzed: 2012-12-07                                      Analyzed By: JR  
 Prep Batch: 82547                                      QC Preparation: 2012-12-07                                      Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

**Method Blank (1)**

QC Batch: 97402                                      Date Analyzed: 2012-12-07                                      Analyzed By: JR  
 Prep Batch: 82547                                      QC Preparation: 2012-12-07                                      Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

**Duplicate (1)**      Duplicated Sample: 315783

QC Batch: 97247                                      Date Analyzed: 2012-12-06                                      Analyzed By: DL  
 Prep Batch: 82424                                      QC Preparation: 2012-12-06                                      Prepared By: DL

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	6080	5980	mg/L	1	2	10

# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 97247  
Prep Batch: 82424Date Analyzed: 2012-12-06  
QC Preparation: 2012-12-06Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	979	mg/L	1	1000	<5.00	98	90 - 110

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	983	mg/L	1	1000	<5.00	98	90 - 110	0	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: 315787

QC Batch: 97209  
Prep Batch: 82366Date Analyzed: 2012-12-07  
QC Preparation: 2012-12-07Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	36.4	mg/L	1	50.0	<1.72	73	10 - 151

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

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Kjeldahl Nitrogen - N		2	37.1	mg/L	1	50.0	<1.72	74	10 - 151	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: 315689

QC Batch: 97339  
Prep Batch: 82491Date Analyzed: 2012-12-06  
QC Preparation: 2012-12-06Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	1870	mg/L	55.6	1390	484	100	90 - 110

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

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1870	mg/L	55.6	1390	484	100	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: 315689

QC Batch: 97339 Date Analyzed: 2012-12-06 Analyzed By: JR  
 Prep Batch: 82491 QC Preparation: 2012-12-06 Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	258	mg/L	55.6	278	4.71	91	90 - 110

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

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	259	mg/L	55.6	278	4.71	91	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: 315781

QC Batch: 97396 Date Analyzed: 2012-12-06 Analyzed By: JR  
 Prep Batch: 82541 QC Preparation: 2012-12-06 Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	1770	mg/L	55.6	1390	439	96	90 - 110

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

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1770	mg/L	55.6	1390	439	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: 315781

QC Batch: 97396 Date Analyzed: 2012-12-06 Analyzed By: JR  
 Prep Batch: 82541 QC Preparation: 2012-12-06 Prepared By: JR



Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N	Qs	1	256	mg/L	55.6	278	8.25	89	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
Nitrate-N		1	260	mg/L	55.6	278	8.25	90	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: 315785

QC Batch: 97397 Date Analyzed: 2012-12-06 Analyzed By: JR  
 Prep Batch: 82542 QC Preparation: 2012-12-06 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	1540	mg/L	55.6	1390	230	94	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	1550	mg/L	55.6	1390	230	95	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: 315785

QC Batch: 97397 Date Analyzed: 2012-12-06 Analyzed By: JR  
 Prep Batch: 82542 QC Preparation: 2012-12-06 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N	Qs	1	251	mg/L	55.6	278	2.28	89	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
Nitrate-N		1	252	mg/L	55.6	278	2.28	90	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: 315786

QC Batch: 97402  
 Prep Batch: 82547

Date Analyzed: 2012-12-07  
 QC Preparation: 2012-12-07

Analyzed By: JR  
 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	2040	mg/L	55.6	1390	643	100	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	2030	mg/L	55.6	1390	643	100	90 - 110	0	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: 97209

Date Analyzed: 2012-12-07

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.62	92	85 - 115	2012-12-07

### Standard (CCV-1)

QC Batch: 97209

Date Analyzed: 2012-12-07

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	5.04	101	85 - 115	2012-12-07

### Standard (CCV-1)

QC Batch: 97339

Date Analyzed: 2012-12-06

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.8	95	90 - 110	2012-12-06

### Standard (CCV-1)

QC Batch: 97339

Date Analyzed: 2012-12-06

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.67	93	90 - 110	2012-12-06

**Standard (CCV-2)**

QC Batch: 97339

Date Analyzed: 2012-12-06

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.8	95	90 - 110	2012-12-06

**Standard (CCV-2)**

QC Batch: 97339

Date Analyzed: 2012-12-06

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.67	93	90 - 110	2012-12-06

**Standard (CCV-1)**

QC Batch: 97396

Date Analyzed: 2012-12-06

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.2	97	90 - 110	2012-12-06

**Standard (CCV-1)**

QC Batch: 97396

Date Analyzed: 2012-12-06

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.74	95	90 - 110	2012-12-06

**Standard (CCV-2)**

QC Batch: 97396

Date Analyzed: 2012-12-06

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.7	95	90 - 110	2012-12-06

**Standard (CCV-2)**

QC Batch: 97396

Date Analyzed: 2012-12-06

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.70	94	90 - 110	2012-12-06

**Standard (CCV-1)**

QC Batch: 97397

Date Analyzed: 2012-12-06

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.7	95	90 - 110	2012-12-06

**Standard (CCV-1)**

QC Batch: 97397

Date Analyzed: 2012-12-06

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.70	94	90 - 110	2012-12-06

**Standard (CCV-2)**

QC Batch: 97397

Date Analyzed: 2012-12-06

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.8	95	90 - 110	2012-12-06

**Standard (CCV-2)**

QC Batch: 97397 Date Analyzed: 2012-12-06 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.66	93	90 - 110	2012-12-06

**Standard (CCV-1)**

QC Batch: 97402 Date Analyzed: 2012-12-07 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.8	95	90 - 110	2012-12-07

**Standard (CCV-1)**

QC Batch: 97402 Date Analyzed: 2012-12-07 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.66	93	90 - 110	2012-12-07

**Standard (CCV-2)**

QC Batch: 97402 Date Analyzed: 2012-12-07 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.8	95	90 - 110	2012-12-07

**Standard (CCV-2)**

QC Batch: 97402 Date Analyzed: 2012-12-07 Analyzed By: JR

---

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.65	93	90 - 110	2012-12-07

---

---

## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.00	-
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.00	-
TKN	SM 4500-NH3 B,C	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass



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# 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	T104704221-12-3	El Paso
2	NELAP	T104704219-12-8	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 than 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.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
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.

# 12120540 TraceAnalysis, Inc.

Company Name: D&H Petroleum & Environmental Services  
 Address: (Street, City, Zip) 1221 Tower Trail Ln, El Paso TX 79907  
 Contact Person: Victor Ayala  
 Phone #: 915-859-8150  
 Cell #: vajajala@dhpump.com  
 Fax #: 915-859-8150  
 E-mail: vajajala@dhpump.com

Project #: 401362  
 Project Name: Linda Armstrong 575-233-3620  
 Project Location (including state): Dona Ana Dairies, PO Box 10, Mesquite, NM 88048  
 Various Dairies, Dona Ana County, NM

Sampler Signature: [Signature]  
 Project Name: Dona Ana Dairies Consortium

LAB # (LAB USE ONLY)	Field Code	# Containers	Volume/Amount	MATRIX			PRESERVATIVE METHOD				Sampling		Turn Around Time	Hold	
				WATER	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE			DATE
315 779	DAD-04	1	250mL	X			X					12-5-12	7:31		
1-1	DAD-04	1	250mL	X			X					12-5-12	7:31		
80-1	DAD-05	1	250mL	X			X					12-5-12	9:04		
1-2	DAD-05	1	250mL	X			X					12-5-12	9:04		
81-1	DAD-06	1	250mL	X			X					12-5-12	13:50		
1-2	DAD-06	1	250mL	X			X					12-5-12	13:50		
82-1	DAD-07	1	250mL	X			X					12-5-12	14:33		
1-2	DAD-07	1	250mL	X			X					12-5-12	14:33		
83-1	DAD-08	1	250mL	X			X					12-5-12	11:57		
1-2	DAD-08	1	250mL	X			X					12-5-12	11:57		
84-1	DAD-16	1	250mL	X			X					12-5-12	8:31		
1-2	DAD-16	1	250mL	X			X					12-5-12	8:31		
85-1	DAD-17	1	250mL	X			X					12-5-12	9:45		
85-2	DAD-17	1	250mL	X			X					12-5-12	9:45		
86-1	DAD-18	1	250mL	X			X					12-5-12	10:53		
1-2	DAD-18	1	250mL	X			X					12-5-12	10:53		

ANALYSIS REQUEST  
 PAH 8270C  
 TX 1005 Extended (C35)  
 TPH 418.1 / TX1005  
 BTEX 8021B/602  
 MTBE 8021B/602

PAH 8270 (Low Level Analysis)  
 Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7  
 Nitrates EPA 300  
 TKN SM 4500 NORG C  
 Chloride EPA 300  
 Total Dissolved Solids SM 2540 C MOD

Remarks: ICE TDS, CI, Nitrates  
(18) SS: 485-42688  
922

Lab Use Only  
 Intact Y/N  
 Headspace Y/N  
 Temp IR-1 77  
 Log-in Review 77

Received By: [Signature] Date: 12-5-12 Time: 15:09  
 Relinquished By: [Signature] Date: 12-5-12 Time: 16:30

Received at Laboratory By: [Signature] Date: 12-5-12 Time: 15:09  
 Relinquished By: [Signature] Date: 12-5-12 Time: 16:30

Dry Weight Basis Required   
 TRRP Report Required

LAB Order ID # 12120540

Phone #: 915-859-8150  
Cell #:   
Fax #:   
E-mail: vajala@dhpump.com

D&H Petroleum & Environmental Services  
Address: (Street, City, Zip)  
1221 Tower Trail Ln, El Paso TX 79907  
Contact Person: Victor Ayala

Company Name: TraceAnalysis, Inc.

155 McCutcheon, Ste. H El Paso, TX 79932  
Tel (915) 585-3443  
Fax (915) 585-4944

Project #: 401362

Project Name: Dona Ana Dairies Consortium  
Project Location (including state): Dona Ana Dairies, PO Box 10, Mesquite, NM 88048  
Various Dairies, Dona Ana County, NM

Sampler Signature: *Dora N R*

LAB #	Field Code	# Containers	Volume/Amount	MATRIX				PRESERVATIVE METHOD				SAMPLING			
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE	TIME
315787-1	DAD-19	1	250ml	X				X			X			12-5-12	13:10
↓	DAD-19	1	250ml	X				X			X			12-5-12	13:10

ANALYSIS REQUEST	MTBE 8021B/602	BTEX 8021B/602	TPH 418.1 / TX1005	TX 1005 Extended (C35)	PAH 8270C	PAH 8270 (Low Level Analysis)	Total Metals Ag As BA Cd Cr Pb Se Hg 6010B/200.7	Nitrates EPA 300	TKN SM 4500 NORC C	Chloride EPA 300	Total Dissolved Solids SM 2540 C MOD	Turn Around Time	Hold
								X	X	X			

LAB USE ONLY	Date:	Time:	Received By:	Date:	Time:	Lab Use Only	
						Intact <input checked="" type="checkbox"/> / N	Headspace <input type="checkbox"/> / N
Relinquished By: <u>Angel M. RIVERA</u>	12-5-12	15:09	<u>Denny de Haro</u>	12-15-12	15:09		
Relinquished By: <u>Dad H</u>	12-5-12	16:30	<u>[Signature]</u>	12/6/12	9:20		

Remarks: ICE TDS, CI, NO<sub>3</sub>, INEP  
18% T.S. 48542688  
[Signature]

Dry Weight Basis Required  TRRP Report Required



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      915-585-3443      FAX 915-585-4944  
 5002 Basin Street, Suite A1      Midland, Texas 79703      432-689-6301      FAX 432-689-6313  
 (BioAquatic) 2501 Mayes Rd., Suite 100      Carrollton, Texas 75006      972-242-7750  
 E-Mail: lab@traceanalysis.com      WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Linda Armstrong  
 Dona Ana Dairies

Report Date: December 18, 2012

P.O. Box 10  
 Mesquite, NM, 88048

Work Order: 12120326



Project Location: Various Dairies, Dona Ana County, NM  
 Project Name: Dona Ana Dairies Consortium  
 Project #: DAD

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
315579	DAD-01	water	2012-12-03	08:08	2012-12-03
315580	DAD-02	water	2012-12-03	13:14	2012-12-03
315581	DAD-03	water	2012-12-03	14:21	2012-12-03
315582	DAD-11	water	2012-12-03	11:16	2012-12-03
315583	DAD-12	water	2012-12-03	09:02	2012-12-03
315584	DAD-13	water	2012-12-03	09:43	2012-12-03
315585	DAD-14	water	2012-12-03	12:09	2012-12-03

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 23 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

**Notes:**

*For inorganic analyses, the term MQL should actually read PQL.*

*Blair Leftwich*

---

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

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## Case Narrative

Samples for project Dona Ana Dairies Consortium were received by TraceAnalysis, Inc. on 2012-12-03 and assigned to work order 12120326. Samples for work order 12120326 were received intact at a temperature of 4.0 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	82644	2012-12-04 at 18:20	97532	2012-12-04 at 18:20
Chloride (IC)	E 300.0	82645	2012-12-04 at 22:32	97534	2012-12-04 at 22:32
NO3 (IC)	E 300.0	82644	2012-12-04 at 18:20	97532	2012-12-04 at 18:20
NO3 (IC)	E 300.0	82645	2012-12-04 at 22:32	97534	2012-12-04 at 22:32
TDS	SM 2540C	82347	2012-12-04 at 08:30	97156	2012-12-04 at 08:30
TKN	SM 4500-NH3 B,C	82318	2012-12-05 at 09:30	97141	2012-12-05 at 15:00

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 12120326 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: 315579 - DAD-01**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97532 Date Analyzed: 2012-12-04 Analyzed By: JR  
 Prep Batch: 82644 Sample Preparation: 2012-12-04 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>348</b>	<b>348</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 315579 - DAD-01**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97532 Date Analyzed: 2012-12-04 Analyzed By: JR  
 Prep Batch: 82644 Sample Preparation: 2012-12-04 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>10.7</b>	<b>10.7</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315579 - DAD-01**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97156 Date Analyzed: 2012-12-04 Analyzed By: DL  
 Prep Batch: 82347 Sample Preparation: 2012-12-04 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>1800</b>	<b>1800</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 315579 - DAD-01**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 97141 Date Analyzed: 2012-12-05 Analyzed By: AK  
 Prep Batch: 82318 Sample Preparation: 2012-12-05 Prepared By: AK



Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 315580 - DAD-02**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97532 Date Analyzed: 2012-12-04 Analyzed By: JR  
 Prep Batch: 82644 Sample Preparation: 2012-12-04 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>345</b>	<b>345</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 315580 - DAD-02**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97532 Date Analyzed: 2012-12-04 Analyzed By: JR  
 Prep Batch: 82644 Sample Preparation: 2012-12-04 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>8.51</b>	<b>8.51</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315580 - DAD-02**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97156 Date Analyzed: 2012-12-04 Analyzed By: DL  
 Prep Batch: 82347 Sample Preparation: 2012-12-04 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>1800</b>	<b>1800</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 315580 - DAD-02**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 97141 Date Analyzed: 2012-12-05 Analyzed By: AK  
 Prep Batch: 82318 Sample Preparation: 2012-12-05 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 315581 - DAD-03**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97532 Date Analyzed: 2012-12-04 Analyzed By: JR  
 Prep Batch: 82644 Sample Preparation: 2012-12-04 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Chloride		1	<b>1150</b>	<b>1150</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 315581 - DAD-03**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97532 Date Analyzed: 2012-12-04 Analyzed By: JR  
 Prep Batch: 82644 Sample Preparation: 2012-12-04 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N	J	1	<b>1.07</b>	<2.50	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315581 - DAD-03**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97156 Date Analyzed: 2012-12-04 Analyzed By: DL  
 Prep Batch: 82347 Sample Preparation: 2012-12-04 Prepared By: DL

*continued . . .*

*sample 315581 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>4760</b>	<b>4760</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 315581 - DAD-03**

Laboratory: Lubbock

Analysis: TKN

QC Batch: 97141

Prep Batch: 82318

Analytical Method: SM 4500-NH3 B,C

Date Analyzed: 2012-12-05

Sample Preparation: 2012-12-05

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 315582 - DAD-11**

Laboratory: El Paso

Analysis: Chloride (IC)

QC Batch: 97532

Prep Batch: 82644

Analytical Method: E 300.0

Date Analyzed: 2012-12-04

Sample Preparation: 2012-12-04

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>1210</b>	<b>1210</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 315582 - DAD-11**

Laboratory: El Paso

Analysis: NO3 (IC)

QC Batch: 97534

Prep Batch: 82645

Analytical Method: E 300.0

Date Analyzed: 2012-12-04

Sample Preparation: 2012-12-04

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>13.4</b>	<b>13.4</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315582 - DAD-11**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97156 Date Analyzed: 2012-12-04 Analyzed By: DL  
 Prep Batch: 82347 Sample Preparation: 2012-12-04 Prepared By: DL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>3870</b>	<b>3870</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 315582 - DAD-11**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 97141 Date Analyzed: 2012-12-05 Analyzed By: AK  
 Prep Batch: 82318 Sample Preparation: 2012-12-05 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 315583 - DAD-12**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97534 Date Analyzed: 2012-12-04 Analyzed By: JR  
 Prep Batch: 82645 Sample Preparation: 2012-12-04 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>689</b>	<b>689</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 315583 - DAD-12**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97534 Date Analyzed: 2012-12-04 Analyzed By: JR  
 Prep Batch: 82645 Sample Preparation: 2012-12-04 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	16.4	16.4	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315583 - DAD-12**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97156 Date Analyzed: 2012-12-04 Analyzed By: DL  
 Prep Batch: 82347 Sample Preparation: 2012-12-04 Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	3070	3070	<5.00	mg/L	1	5.00	5	5

**Sample: 315583 - DAD-12**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 97141 Date Analyzed: 2012-12-05 Analyzed By: AK  
 Prep Batch: 82318 Sample Preparation: 2012-12-05 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	0	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 315584 - DAD-13**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97534 Date Analyzed: 2012-12-04 Analyzed By: JR  
 Prep Batch: 82645 Sample Preparation: 2012-12-04 Prepared By: JR

*continued ...*

sample 315584 continued ...

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>504</b>	<b>504</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 315584 - DAD-13**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97534 Date Analyzed: 2012-12-04 Analyzed By: JR  
 Prep Batch: 82645 Sample Preparation: 2012-12-04 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>5.04</b>	<b>5.04</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315584 - DAD-13**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97156 Date Analyzed: 2012-12-04 Analyzed By: DL  
 Prep Batch: 82347 Sample Preparation: 2012-12-04 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>1810</b>	<b>1810</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 315584 - DAD-13**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 97141 Date Analyzed: 2012-12-05 Analyzed By: AK  
 Prep Batch: 82318 Sample Preparation: 2012-12-05 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72

**Sample: 315585 - DAD-14**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97534 Date Analyzed: 2012-12-04 Analyzed By: JR  
 Prep Batch: 82645 Sample Preparation: 2012-12-04 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>1150</b>	<b>1150</b>	<10.4	mg/L	50	10.4	2.5	0.209

**Sample: 315585 - DAD-14**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 97534 Date Analyzed: 2012-12-04 Analyzed By: JR  
 Prep Batch: 82645 Sample Preparation: 2012-12-04 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>40.3</b>	<b>40.3</b>	<0.0290	mg/L	5	0.0290	0.5	0.0058

**Sample: 315585 - DAD-14**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 97156 Date Analyzed: 2012-12-04 Analyzed By: DL  
 Prep Batch: 82347 Sample Preparation: 2012-12-04 Prepared By: DL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>4010</b>	<b>4010</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 315585 - DAD-14**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 97141 Date Analyzed: 2012-12-05 Analyzed By: AK  
 Prep Batch: 82318 Sample Preparation: 2012-12-05 Prepared By: AK

*continued ...*

*sample 315585 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
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Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.72	<10.0	<1.72	mg/L	1	1.72	10	1.72



## Method Blanks

### Method Blank (1)

QC Batch: 97141  
Prep Batch: 82318Date Analyzed: 2012-12-05  
QC Preparation: 2012-12-05Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.72	mg/L	1.72

### Method Blank (1)

QC Batch: 97156  
Prep Batch: 82347Date Analyzed: 2012-12-04  
QC Preparation: 2012-12-04Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 97532  
Prep Batch: 82644Date Analyzed: 2012-12-04  
QC Preparation: 2012-12-04Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

### Method Blank (1)

QC Batch: 97532  
Prep Batch: 82644Date Analyzed: 2012-12-04  
QC Preparation: 2012-12-04Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

**Method Blank (1)**

QC Batch: 97534                                      Date Analyzed: 2012-12-04                                      Analyzed By: JR  
 Prep Batch: 82645                                      QC Preparation: 2012-12-04                                      Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.209	mg/L	0.209

**Method Blank (1)**

QC Batch: 97534                                      Date Analyzed: 2012-12-04                                      Analyzed By: JR  
 Prep Batch: 82645                                      QC Preparation: 2012-12-04                                      Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00580	mg/L	0.0058

**Duplicate (1)**      Duplicated Sample: 315581

QC Batch: 97156                                      Date Analyzed: 2012-12-04                                      Analyzed By: DL  
 Prep Batch: 82347                                      QC Preparation: 2012-12-04                                      Prepared By: DL

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	4720	4760	mg/L	1	1	10

# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 97156  
Prep Batch: 82347Date Analyzed: 2012-12-04  
QC Preparation: 2012-12-04Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	986	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	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	986	mg/L	1	1000	<5.00	99	90 - 110	0	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: 315585

QC Batch: 97141  
Prep Batch: 82318Date Analyzed: 2012-12-05  
QC Preparation: 2012-12-05Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	36.4	mg/L	1	50.0	<1.72	73	10 - 151

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

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Kjeldahl Nitrogen - N		2	36.4	mg/L	1	50.0	<1.72	73	10 - 151	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: 315580

QC Batch: 97532  
Prep Batch: 82644Date Analyzed: 2012-12-04  
QC Preparation: 2012-12-04Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	1690	mg/L	55.6	1390	345	97	90 - 110

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

Param	F	C	MSD		Dil.	Spike Amount	Matrix		Rec. Limit	RPD	RPD Limit
			Result	Units			Result	Rec.			
Chloride		1	1680	mg/L	55.6	1390	345	96	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: 315580

QC Batch: 97532 Date Analyzed: 2012-12-04 Analyzed By: JR  
 Prep Batch: 82644 QC Preparation: 2012-12-04 Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix		Rec. Limit
			Result	Units			Result	Rec.	
Nitrate-N		1	270	mg/L	55.6	278	8.51	94	90 - 110

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

Param	F	C	MSD		Dil.	Spike Amount	Matrix		Rec. Limit	RPD	RPD Limit
			Result	Units			Result	Rec.			
Nitrate-N		1	270	mg/L	55.6	278	8.51	94	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: 315584

QC Batch: 97534 Date Analyzed: 2012-12-04 Analyzed By: JR  
 Prep Batch: 82645 QC Preparation: 2012-12-04 Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix		Rec. Limit
			Result	Units			Result	Rec.	
Chloride		1	1870	mg/L	55.6	1390	504	98	90 - 110

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

Param	F	C	MSD		Dil.	Spike Amount	Matrix		Rec. Limit	RPD	RPD Limit
			Result	Units			Result	Rec.			
Chloride		1	1870	mg/L	55.6	1390	504	98	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: 315584

QC Batch: 97534 Date Analyzed: 2012-12-04 Analyzed By: JR  
 Prep Batch: 82645 QC Preparation: 2012-12-04 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	264	mg/L	55.6	278	5.04	93	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
Nitrate-N		1	264	mg/L	55.6	278	5.04	93	90 - 110	0	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: 97141

Date Analyzed: 2012-12-05

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.62	92	85 - 115	2012-12-05

### Standard (CCV-1)

QC Batch: 97141

Date Analyzed: 2012-12-05

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.76	95	85 - 115	2012-12-05

### Standard (CCV-1)

QC Batch: 97532

Date Analyzed: 2012-12-04

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.9	96	90 - 110	2012-12-04

### Standard (CCV-1)

QC Batch: 97532

Date Analyzed: 2012-12-04

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.74	95	90 - 110	2012-12-04

**Standard (CCV-2)**

QC Batch: 97532 Date Analyzed: 2012-12-04 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.7	95	90 - 110	2012-12-04

**Standard (CCV-2)**

QC Batch: 97532 Date Analyzed: 2012-12-04 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.71	94	90 - 110	2012-12-04

**Standard (CCV-1)**

QC Batch: 97534 Date Analyzed: 2012-12-04 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.7	95	90 - 110	2012-12-04

**Standard (CCV-1)**

QC Batch: 97534 Date Analyzed: 2012-12-04 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.71	94	90 - 110	2012-12-04

**Standard (CCV-2)**

QC Batch: 97534 Date Analyzed: 2012-12-04 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.9	96	90 - 110	2012-12-04

**Standard (CCV-2)**

QC Batch: 97534

Date Analyzed: 2012-12-04

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.68	94	90 - 110	2012-12-04



---

## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.00	-
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.00	-
TKN	SM 4500-NH3 B,C	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

# 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	T104704221-12-3	El Paso
2	NELAP	T104704219-12-8	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 than 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.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
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.

# Trace Analysis, 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

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

Company Name: <b>D&amp;H Envision</b>		Phone #: <b>915-859-8150</b>	
Address: <b>1221 Tower Trail Ln, El Paso, Tx 79907</b>		Fax #:	
Contact Person: <b>Victor Ayala</b>		E-mail: <b>vayala@dhpump.com</b>	
Invoice to: <b>Dona Ana Dairies, 10 P.O. Box, Mesquite, Nm 88048</b>		Linda Armstrong <b>575-233-3620</b>	
Project #: <b>401362</b>		Project Name: <b>Dona Ana Dairies Consortium</b>	
Project Location (including state): <b>Various Dairies, Dona Ana County, Nm</b>		Sampler Signature: <i>[Signature]</i>	

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD				SAMPLING			
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE	TIME
315579	DAD-01	1	25ml	X				X				X		12-3-12	8:08
1-2	DAD-01	1		X				X				X			8:08
315580	DAD-02	1		X				X				X		13:14	
1-2	DAD-02	1		X				X				X		13:14	
315581	DAD-03	1		X				X				X		14:21	
1-2	DAD-03	1		X				X				X		14:21	
315582	DAD-11	1		X				X				X		11:16	
1-2	DAD-11	1		X				X				X		11:16	
315583	DAD-12	1		X				X				X		9:02	
1-2	DAD-12	1		X				X				X		9:02	
315594	DAD-13	1		X				X				X		9:43	

LAB USE ONLY	REMARKS:
Relinquished by: <b>Angel N. Rivera D&amp;H</b> Company: <b>D&amp;H</b> Date: <b>12-3-12</b> Time: <b>15:21</b>	REMARKS: ICE (11)
Relinquished by: <b>Danny de Haas</b> Company: <b>D&amp;H</b> Date: <b>12-3-12</b> Time: <b>16:30</b>	
Relinquished by: <b>Danny de Haas</b> Company: <b>D&amp;H</b> Date: <b>12-3-12</b> Time: <b>15:21</b>	

LAB USE ONLY	REMARKS:
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7 TLP Metals Ag As Ba Cd Cr Pb Se Hg TLP Volatiles TLP Semi Volatiles TLP 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, F1, SO4, NO3, NO2, Alkalinity Na, Ca, Mg, K, TDS, EC Nitrate's EPA 300 TKN 5M 4500 NR4 C Chloride EPA 300 TDS 5M 2540 C MFD	Dry Weight Basis Required TRRP Report Required Check If Special Reporting Limits Are Needed Intact <input checked="" type="checkbox"/> N Headspace Y/N/N/NA Log-in-Review 12-3-12

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

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Carrier #

Carry IN 23 48542685

**TraceAnalysis, Inc.**  
 6701 Aberdeen Avenue, Suite 9  
 Lubbock, Texas 79424  
 Tel (806) 794-1296  
 Fax (806) 794-1298  
 1 (800) 378-1296  
 email: lab@traceanalysis.com

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: D & H Environ. Phone #: 915-859-8150  
 Address: (Street, City, Zip) 1221 Tower Trail Ln. El Paso, TX 79907 Fax #: \_\_\_\_\_  
 Contact Person: Victor Ayala E-mail: vayala@d&henv.com  
 Invoice to: Dona Am Dairies Linda Armstrong  
 (If different from above) P.O. Box 10, Mesquite, NM 88048 575-253-3626  
 Project #: 401362 Project Name: Dona Am Dairies Consortium  
 Project Location (including state): Various Dairies, Dona Ana County, NM Sampler Signature: [Signature]  
 Various Dairies, Dona Ana County, NM

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD				SAMPLING			
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE	TIME
35584	DAD-13	1	250 mL X							X				12-3-12	9:43
35585	PAP-14	1	250 mL X					X						12-3-12	12:09
1-2	DAD-14	1	250 mL X							X				12-3-12	12:09

MTBE 8021 / 602 / 8260 / 624  
 BTEX 8021 / 602 / 8260 / 624  
 TPH 418.1 / TX1005 / TX1005 Ex(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, F1, SO4, NO3, NO2, Alkalinity  
 Na, Ca, Mg, K, TDS, EC  
 X Nitrate's EPA 308  
 X TKN 5m 4500  
 X Chloride EPA 300  
 X TDS 5m 2540 C MOD  
 Turn Around Time if different from standard

ANALYSIS REQUEST  
 (Circle or Specify Method No.)

LAB USE ONLY  
 Intact  Y  N  
 Headspace Y / N / NA  
 Log in Review  Y  N

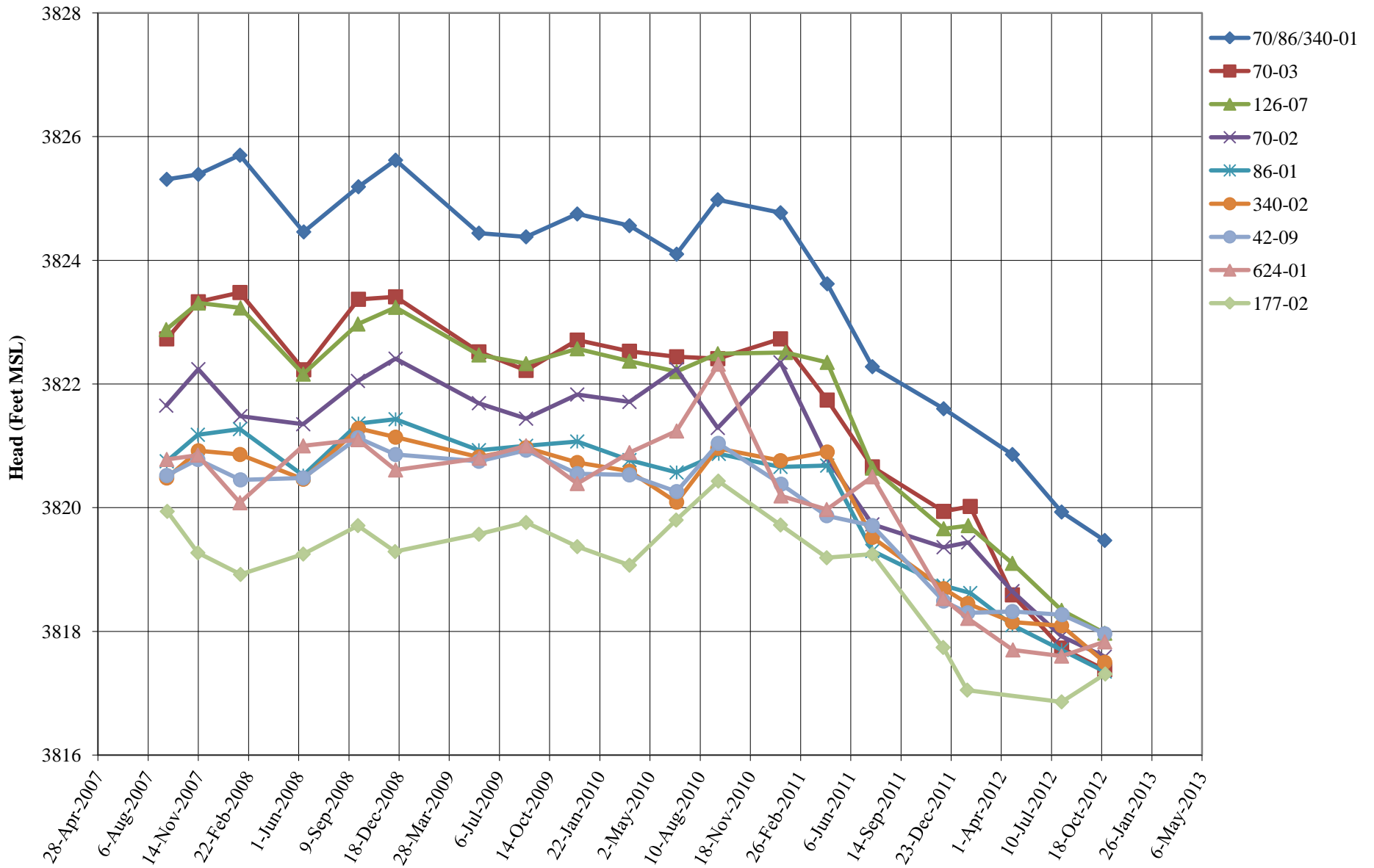
REMARKS:  
 ①  
 1CE  
 Dry Weight Basis Required  
 TRRP Report Required  
 Check If Special Reporting Limits Are Needed

Carrier # Carry IN 25 48542685

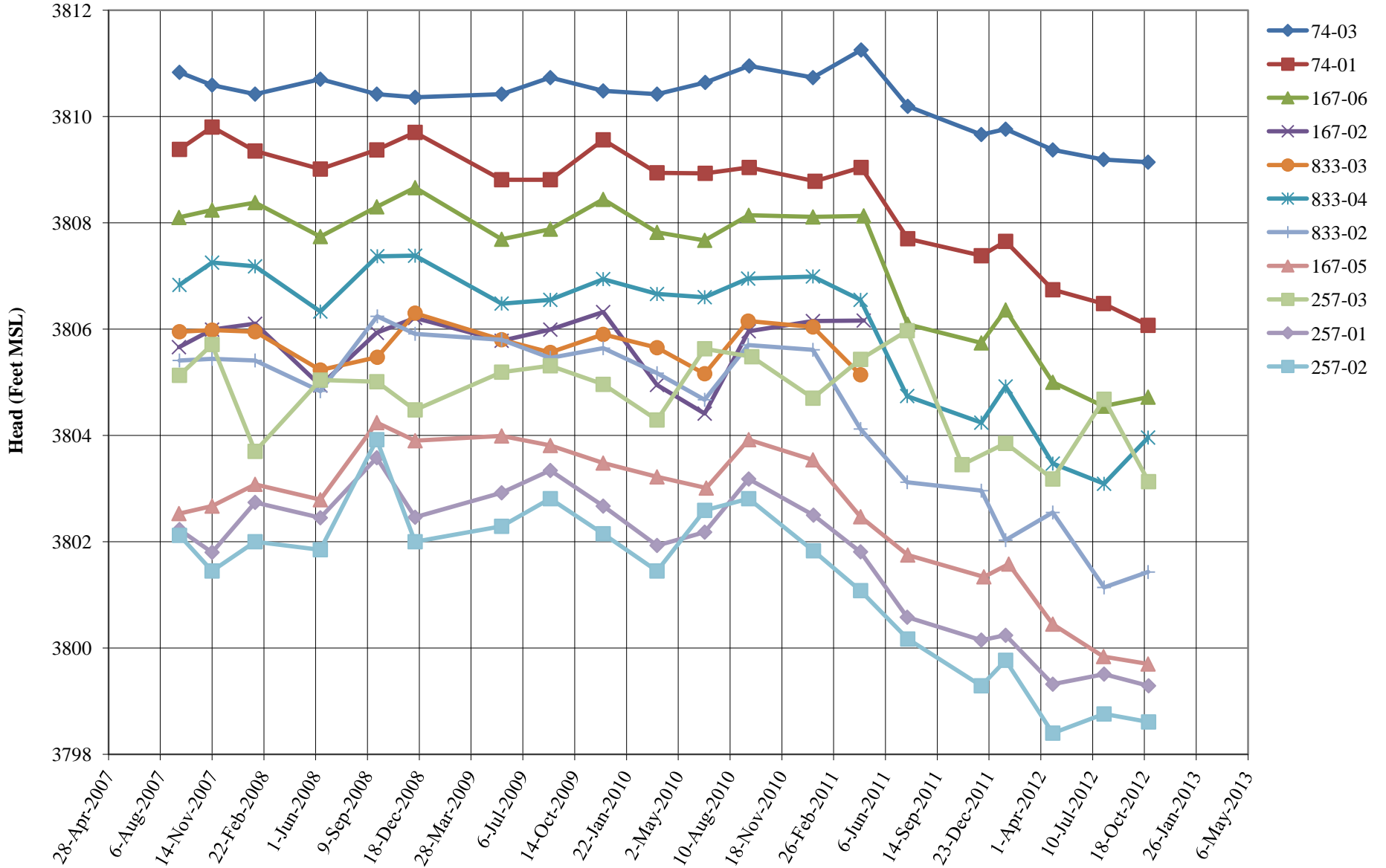
Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.  
 ORIGINAL COPY

**APPENDIX C  
HYDROGRAPHS**

## HYDROGRAPHS FOR DP MONITORING WELLS NORTHERN PORTION



## HYDROGRAPHS FOR DP MONITORING WELLS CENTRAL PORTION

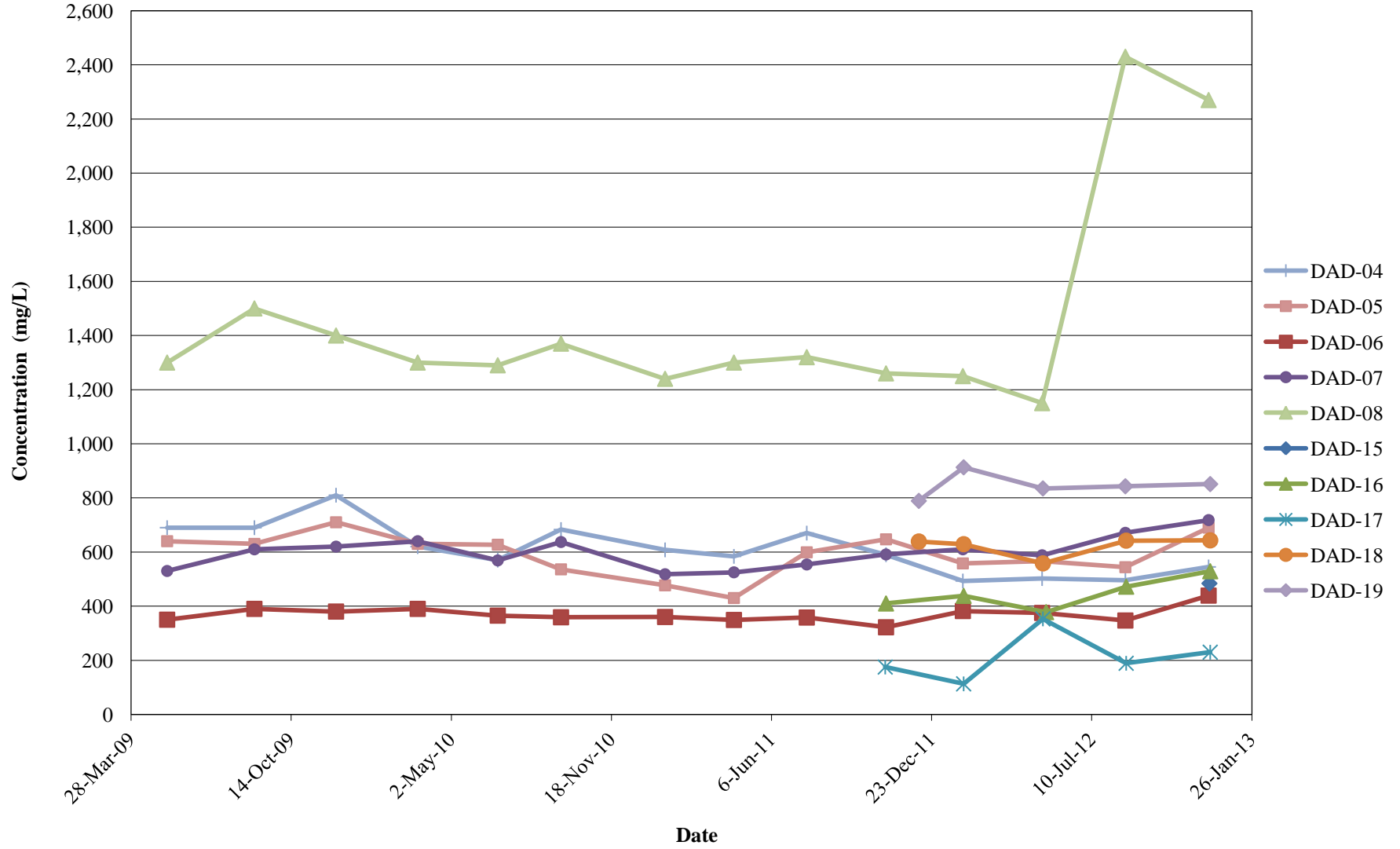




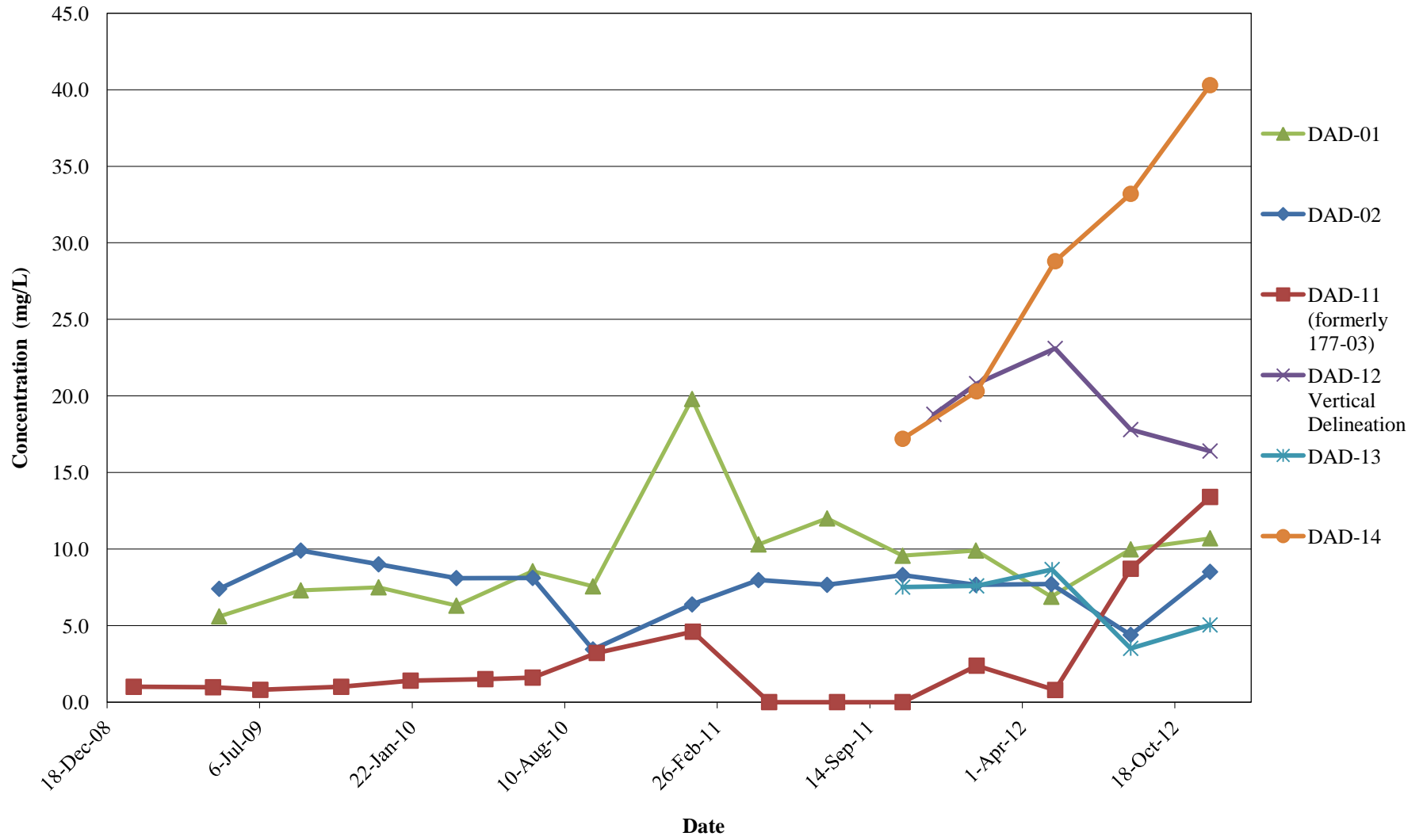


**APPENDIX D**  
**CONCENTRATION TRENDS**

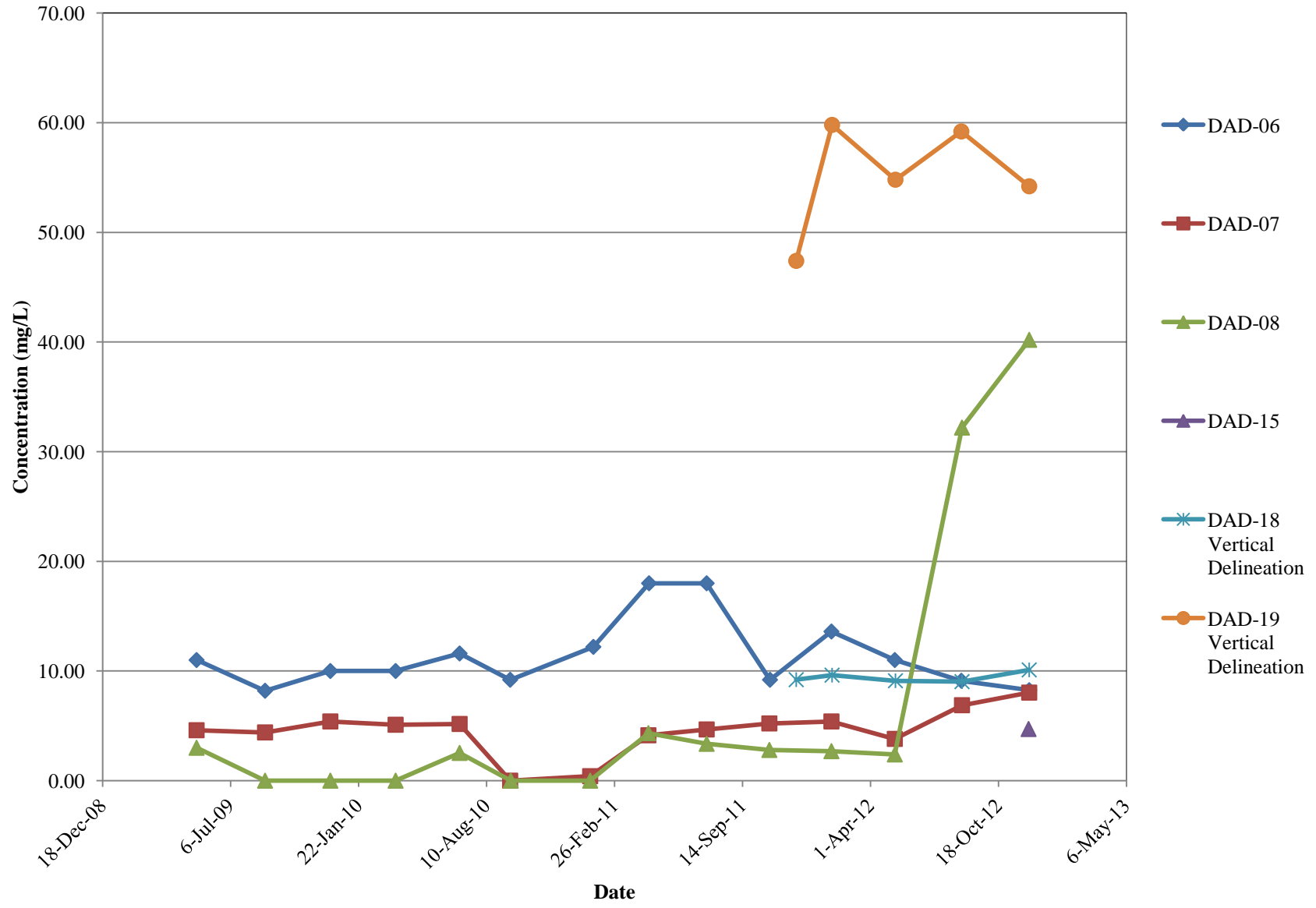
### CHLORIDE CONCENTRATION TRENDS CENTRAL DAD MONITORING WELLS



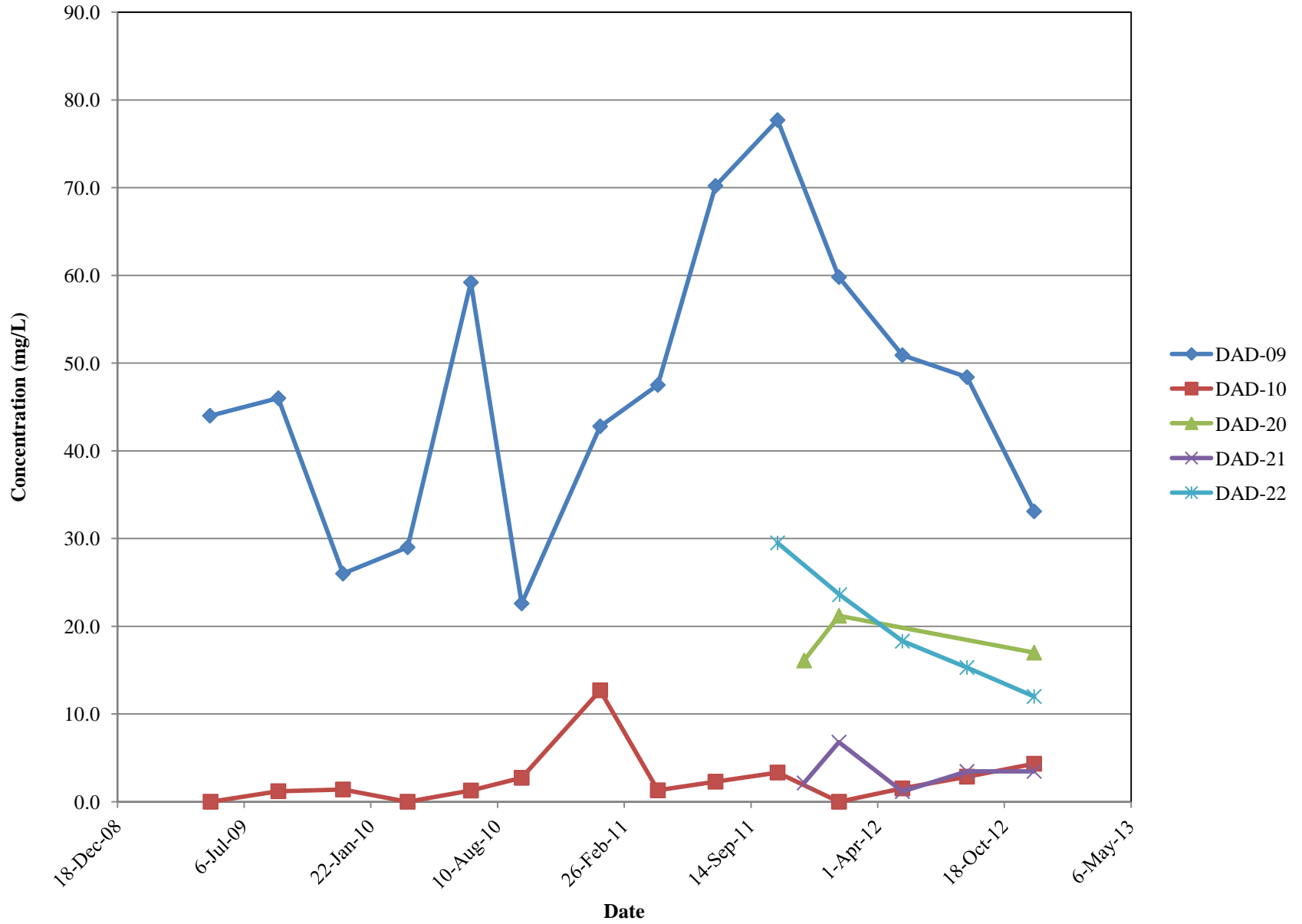
## NITRATE CONCENTRATION TRENDS IN SELECT NORTHERN DAD MONITORING WELLS



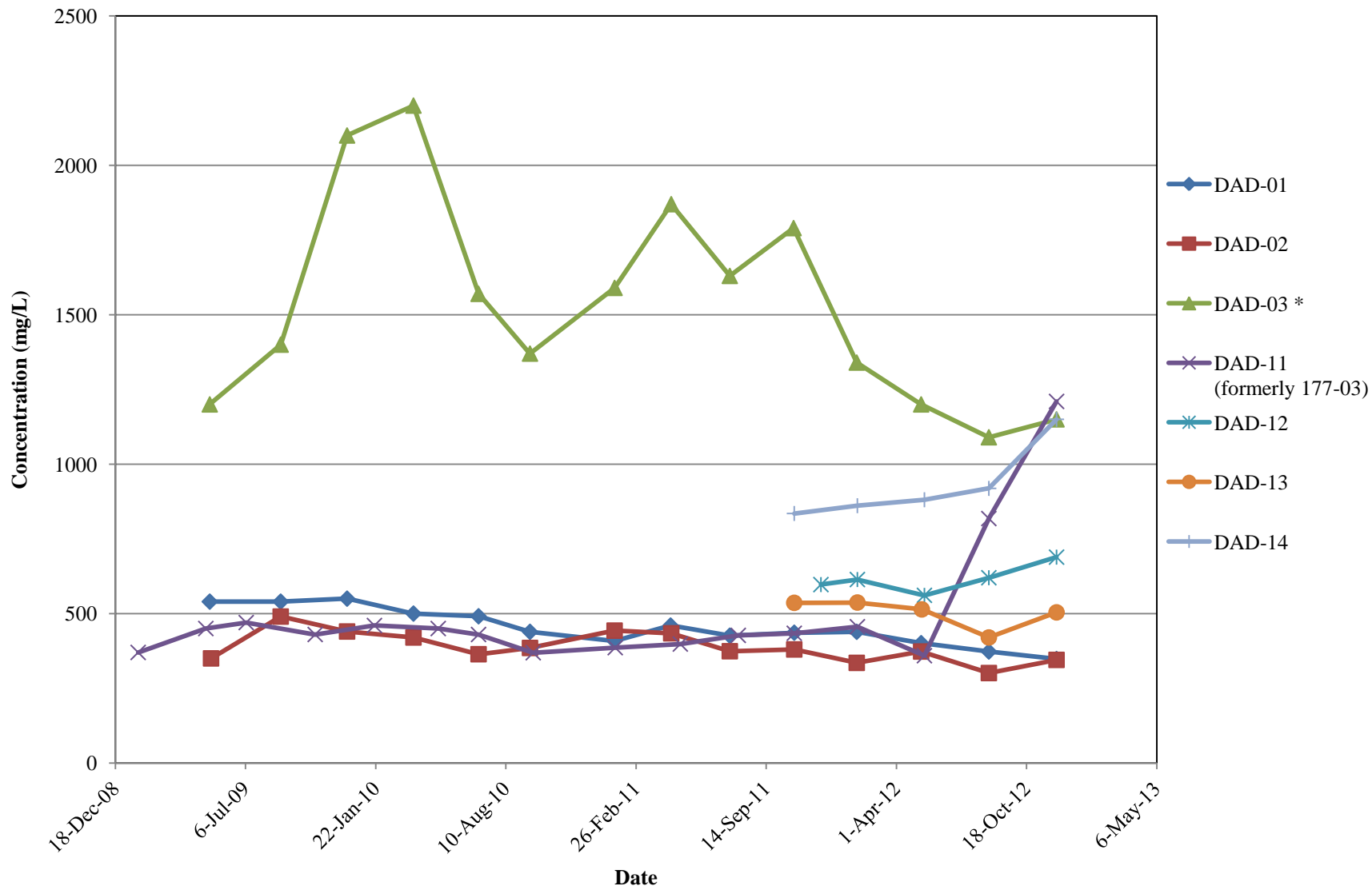
### NITRATE CONCENTRATION TRENDS IN SELECT CENTRAL DAD WELLS



### NITRATE CONCENTRATION TRENDS IN SELECT SOUTHERN DAD WELLS



## CHLORIDE CONCENTRATION TRENDS NORTHERN DAD WELLS



# CHLORIDE CONCENTRATION TRENDS SOUTHERN DAD WELLS

