



Rincon Consultants, Inc.

1530 Monterey Street, Suite D
San Luis Obispo, California 93401
805 547 0900

info@rinconconsultants.com
www.rinconconsultants.com

February 20, 2014
Project 13-01481

Raymond Dienzo, P.E.
Water Resource Control Engineer
County of San Luis Obispo Public Works
1144 Monterey, Suite B
San Luis Obispo, California 92501-3348

Subject: Los Osos Water Recycling Facility Baseline Groundwater Quality Monitoring Report - County of San Luis Obispo, California

Dear Mr. Dienzo:

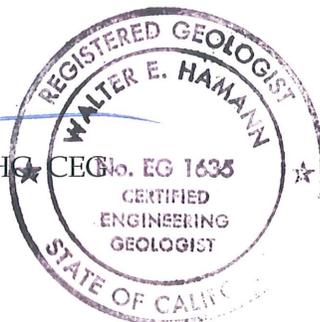
Rincon Consultants, Inc. has prepared the Baseline Groundwater Quality Monitoring Report for the Los Osos Water Recycling Facility located in San Luis Obispo County, California. The objective of the study is to establish baseline groundwater quality conditions prior to discharge of treated municipal wastewater into the upper aquifer prior to facility startup. The groundwater quality monitoring is being performed in accordance with Waste Discharge Requirements Order No. R3-2011-0001 and its Monitoring and Reporting Program to establish baseline conditions prior to discharge of treated water from the water recycling facility.

Please contact us with questions regarding the results of the Baseline Groundwater Quality Monitoring Report.

Sincerely,
RINCON CONSULTANTS, INC.


Kelly Steffen
Staff Geologist


Walt Hamann, PG, CHG
Vice President




Torin R. Snyder, PG, CHG
Senior Hydrogeologist

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INTRODUCTION

This report presents the results of the January 2014 Baseline Groundwater Quality Monitoring event for the Los Osos Water Recycling Facility located in San Luis Obispo County, California (Figure 1). The objective of the study is to establish baseline groundwater quality conditions prior to discharge of treated municipal wastewater into the upper aquifer prior to facility startup.

The County of San Luis Obispo developed and operated a groundwater Monitoring and Reporting Program (MRP) from 1982 through 1998 (County of San Luis Obispo, 1999). In 2002, twelve monitoring network wells were reconstructed with deeper sanitary seals (Cleath & Associates, 2002), leading to the Los Osos Community Services District groundwater monitoring program that was operated through 2006 (Cleath & Associates, 2006). The reconstructed wells are designated by the letter “r” at the end of the well ID, as in “13L5r”.

In order to establish baseline groundwater quality conditions, the RWQCB requires semi-annual baseline water quality monitoring of the groundwater well network. The first sampling event was completed in August 2012 and the second event was completed in June 2013. The groundwater monitoring activities performed during January, 2014 conform with Waste Discharge Requirements (WDR) Order No. R3-2011-0001 and its MRP. During the January, 2014 monitoring event, Rincon measured the depth to groundwater, collected groundwater samples, and analyzed groundwater samples for pH, nitrate, nitrite, organic nitrogen, ammonia, total Kjeldahl nitrogen, and total nitrogen, total dissolved solids, sodium, chloride, sulfate, and boron from 26 network groundwater monitoring wells located within Los Osos, California. This report presents the geologic and hydrogeologic setting, groundwater elevations and gradient, groundwater sampling methodology, water quality data results, and our conclusions.

GEOLOGIC AND HYDROGEOLOGIC SETTING

The Los Osos Basin is an east/west trending syncline covering ten square miles comprised of Tertiary and Quaternary age sediments that unconformably lie on top of Miocene and Jurassic age bedrock of the Pismo and Franciscan Formations, respectively. The onshore portion of the Los Osos Basin underlies the bay and sandspit, as well as the community of Los Osos, Baywood Park, and the Los Osos Creek Valley. The basin is bounded to the north, east and south by relatively impermeable bedrock formations and to the west where the aquifer outcrops on the ocean floor.

The upper aquifer zones include the unconfined perched aquifer (Old Dune Sand deposits), the upper transitional aquifer, and the main water supply aquifer (interbedded clay, silt, sand and gravel layers of the Paso Robles Formation). The upper aquifer extends to a depth of approximately 200 feet below sea level where it meets the regional aquitard. Recent studies indicate that the regional aquitard (a 50-foot-thick and relatively continuous clay layer) is leaky, allowing the upper aquifer to recharge the lower aquifer. The deepest portions of the lower aquifer freshwater supply extend to depths of approximately 700 feet below sea level (Hopkins, 2008). For the past decade the lower aquifer (also comprised of the Paso Robles Formation) has provided the main supply of fresh water for three local water purveyors, agricultural irrigation



and domestic use. Increased pumping of the lower aquifer has resulted in recharge primarily by the upper aquifer; other sources include subsurface inflow from the Creek Valley Alluvial Aquifer (creek compartment) and seawater intrusion (Cleath & Associates, 2008).

The monitoring well network for WDR compliance monitoring consists of 26 wells, including 20 public agency wells and six private wells located within the upper aquifer system of the Los Osos Valley Groundwater Basin (Los Osos Basin). Well construction information is summarized in Table 1 and well locations are presented in Figure 2.

GROUNDWATER ELEVATIONS AND GRADIENT

Rincon measured the depth to water in 21 of the 26 groundwater monitoring wells using an electronic water level indicator between January 6 and 9, 2014 (Table 2). Rincon was unable to measure the depth to water in five of the network monitoring wells due to the fact the depth to water monitoring port was not present or access was restricted at the well head. However, groundwater quality samples were collected from the five groundwater monitoring wells since the pumps in the wells were operating and there was access to the water quality sampling ports.

The groundwater elevations onsite ranged from 8.19 feet Above Mean Sea Level (AMSL) in groundwater monitoring well 13G to 98.97 in groundwater monitoring well 18J6r (Table 2 and Figure 3). Groundwater elevations generally decreased slightly or remained stable compared to the Second Semi-Annual 2013 groundwater sampling event, as shown in Figure 5.

The groundwater gradient ranged from 0.009 feet/foot (calculated using groundwater monitoring wells 8N2r, 7L3r, and 18C1r) to 0.023 feet/foot (calculated using groundwater monitoring wells 18E1, 18C1r, and 18B1r). The predominant direction of groundwater flow ranged from northwest to west towards Morro Bay. East of Los Osos where the water flow direction splits and groundwater flows east towards Los Osos Creek. Elevation data and flow direction is depicted in Figure 3.

GROUNDWATER SAMPLING METHODOLOGY

During the January 2014 groundwater monitoring event, samples were collected from 26 groundwater monitoring wells. Prior to sampling, depth to water was measured using an electronic water level indicator. A submersible pump or a disposable polyethylene bailer was used to purge the groundwater monitoring wells. The well was considered sufficiently purged when consecutive water quality measurements varied by less than 10 percent and a minimum of three casing volumes were purged from the well. Alternatively, the well was considered sufficiently purged if it was purged dry. The following water quality parameters were measured during the purging process: temperature, pH, turbidity, total dissolved solids, electrical conductivity, and dissolved oxygen. The water quality parameters were monitored to verify that the parameters stabilized and the groundwater sample collected was representative of the aquifer conditions at that location (Appendix 1).



Once the well was purged, a disposable bailer was used to collect the groundwater samples. The groundwater samples were transferred into preserved and non-preserved containers supplied by Calscience Laboratories, Inc. The containers were capped, labeled, placed in Ziploc bags, and stored on ice in a cooler pending delivery to Calscience Laboratories, Inc. The groundwater samples were analyzed for pH, total dissolved solids, nitrate, nitrite, organic nitrogen, ammonia, total Kjeldahl nitrogen (TKN), total nitrogen, sodium, chloride, sulfate, and boron.

Purged groundwater and decontamination water was discharged to the ground or stored in a water trailer, and discharged to a pre-approved discharge point at the end of each day.

GROUNDWATER QUALITY SAMPLE RESULTS

The groundwater quality samples collected during the January 2014 sampling event were analyzed by Calscience Laboratories in Garden Grove, California. The constituents of analysis required for this monitoring event included pH, total dissolved solids, nitrate, nitrite, organic nitrogen, ammonia, total Kjeldahl nitrogen, total nitrogen, sodium, chloride, sulfate, and boron (Table 3). Laboratory reports are included as Appendix B of this report.

pH

The pH of the groundwater samples collected during the January 2014 sampling event ranged from 5.95 to 10.49 and the average pH was 6.7.

Total Dissolved Solids (TDS)

During the January 2014 sampling event, TDS concentrations in shallow groundwater ranged from 95 milligrams per liter (mg/L) in well 8N2 to 795 mg/L in well 13Q1 with an average of 407 mg/L. TDS concentrations increased from 290 mg/L to 440 mg/L from June of 2013 to January of 2014, respectively in groundwater monitoring well 13G, which is the greatest increase in TDS concentrations. TDS concentrations decreased by 25% in groundwater monitoring well 8Mb and increased by 34% in groundwater monitoring well 13G. Historically, TDS concentrations ranged from 67 mg/L to 1,100 mg/L with an average of 372 mg/L. Groundwater wells 13Q1r, 24A, 18N1r, 7R1r, 18C1r, 18B1r are noted as having an increase in TDS concentration of over 100 mg/L since 2005. However, groundwater concentrations from the January 2014 sampling event were within the historical average and in general TDS appears to be stable. Results from the January 2014 sampling are presented in a bar graph on Figure 7 with results from 2013, 2012, and 2005 for comparison.

Nitrate as Nitrogen (N)

Nitrate as N concentrations in groundwater samples collected during the January 2014 sampling event ranged from 0.92 mg/L to 57 mg/L. Seventeen of the 26 wells exceeded the Maximum Contaminant Level (MCL) for drinking water standard set by the Environmental Protection Agency (EPA) of 10 mg/L N, and one well was equal to the MCL.

Nitrate concentrations increased from 3.6 mg/L to 14 mg/L from June of 2013 to January of 2014, in groundwater monitoring well 18J6r, which is the greatest increase in nitrate concentrations. Nitrate concentrations decreased by 85% in groundwater monitoring well 18A



and increased by 74% in groundwater monitoring well 18J6r. Nitrate as N concentrations from the January 2014 sampling are summarized in Table 3. Figure 4 presents a map of the nitrate concentration data with iso-concentration contours. A bar graph on Figure 6 illustrates and compares results from the 2014, 2013, 2012, and 2005 sampling events.

Other forms of Nitrogen

Ammonia and nitrites are ions commonly measured in groundwater. During the January 2014 sampling event nitrite was not detected above the reporting limit of 0.1 mg/L, which is below the MCL for Nitrite (1 mg/L). Ammonia (NH₃⁺) is the primary form of nitrogen in septic system effluent, and it is converted to nitrate during the leaching process through the vadose zone. Ammonia was detected in 13Q1r, 17E9, and 18J6r with concentrations of 0.11 mg/L, 1.4 mg/L, and 2.4 mg/L, respectively.

Organic nitrogen and TKN were detected in 16 of the 26 groundwater monitoring wells. Concentrations of organic nitrogen ranged from <0.5 mg/L to 7.6 mg/L. TKN concentrations ranged from <0.5 mg/L to 7.6 mg/L.

CONCLUSIONS

The January 2014 groundwater flow pattern is consistent with historical flow direction and gradient. Shallow groundwater generally flows northwest to west towards Morro Bay, however east of Los Osos groundwater flows east towards Los Osos Creek. Groundwater elevations averaged one foot higher in January 2014 compared to July 2013.

During the January 2014 sampling event, TDS concentrations in shallow groundwater ranged from 95 mg/L in well 8N2 to 795 mg/L in well 13Q1 with an average of 407 mg/L. TDS concentrations decreased by 25% in groundwater monitoring well 8Mb and increased by 34% in groundwater monitoring well 13G. The TDS groundwater concentrations from the January 2014 sampling event were within the historical average and in general TDS appears to be stable.

Twenty of the 26 wells exceeded the MCL drinking water standard set by the EPA of 10 mg/L nitrate and two wells were equal to the MCL. Nitrate concentrations decreased by 85% in groundwater monitoring well 18A and increased by 74% in groundwater monitoring well 18J6r. In general the nitrate concentrations in groundwater are similar to the historical nitrate concentrations in the upper Los Osos groundwater basin.

LIMITATIONS

This report has been prepared for and is intended for the exclusive use of the County of San Luis Obispo. The contents of this report should not be relied upon by any other party without the written consent of Rincon Consultants, Inc.

Our conclusions regarding the site are based on observations of existing site conditions, our interpretation of site usage information, and the results of a limited subsurface sampling and chemical testing program. The concentrations of contaminants measured at any given location



may not be representative of conditions at other locations intermediate to those locations sampled. Further, conditions may change at any particular location as a function of time in response to natural conditions, chemical reactions and other events. Conclusions regarding the condition of the site do not represent a warranty that all areas within the site are similar to those sampled.

REFERENCES

- Cleath & Associates. November 2002. Los Osos Nitrate Monitoring Program, June-July 2002 Ground Water Monitoring.
- Cleath & Associates. April 2005. Los Osos Nitrate Monitoring Program, April 2005 Ground Water Monitoring.
- Cleath & Associates. December 2006. Los Osos Nitrate Monitoring Program, October 2006 Ground Water Monitoring.
- Cleath & Associates. August 2008. Basin hydrologic budget with simulated ground water elevation contour maps.
- Cleath-Harris Geologists. July 2013. Los Osos Water Recycling Facility Baseline Groundwater Quality Monitoring Report.
- Hopkins. October 31, 2008. Final Report of Preliminary Hydrogeological Impacts Study, Los Osos Wastewater Project, Los Osos, California, Prepared for the County of San Luis Obispo.



Table 1
Groundwater Monitoring Well Construction Details

Well ID	Location	Well Ownership	Total Well Depth (ft bgs)	Well Screen Interval (ft bgs)	Well Diameter (in)	TOC Elevation (ft AMSL)
13G	South Court	CSD	52	47-52	2	50.95
13H	Broderson/Skyline	CSD	34	29-34	2	49.33
13L5r	Howard/Del Norte	CSD	37	26-36	2	32.63
13Q1r	Woodland Dr.	CSD	105	95-105	2	101.27
17D	Pismo/18th St.	Private	120	NA	10	NA
17E9	Nipomo/South Bay	CSD	204	184-194	2	105.85
17F4	Hollister Lane	Private	72	48-72	8	78.57
17N4	Willow Dr.	Private	60	40-60	6	162.61
18A	San Luis Ave.	Private	40	NA	6	NA
18B1r	Ramona Ave/10th St.	CSD	35	25-35	2	79.89
18Clr	Pismo Ave/5th St.	CSD	35	25-35	2	34.55
18E1	Ramona/Private Road	Private	100	40-60	6	39.61
18J6r	Los Olivos/Fairchild	CSD	35	25-35	2	125.74
18L3r	Palisades Ave.	CSD	55	43-53	2	88.02
18L4r	Ferrell Ave.	CSD	35	25-35	2	103.85
18N1r	Manzanita/Ravenna	CSD	95	85-95	2	125.53
18R1	Los Osos Valley Rd.	Private	50	40-50	8	170.96
24A	Highland/Alexander	CSD	164	154-164	2	193.04
7K3r	12th/Santa Ysabel	CSD	70	55-65	2	90.71
7L3r	Santa Ysabel/5th	CSD	50	40-50	2	45.76
7N1	3rd St.	CSD	83	61-71, 73-83	8	11
7Q1	El Moro/8th St.	CSD	75	29-43, 54-75	8	25.29
7R1r	El Moro/12th St.	CSD	35	25-35	2	61.93
8Ma	Santa Ysabel/South Bay	CSD	45	35-45	2	91
8Mb	South Bay/18th St.	CSD	47	37-47	2	95
8N2r	South Bay/El Moro	CSD	50	40-50	2	95.99

Notes: Well ID's ending with "r" are reconstructed wells
bgs - below ground surface
AMSL - above mean sea level
TOC - Top of Casing Elevation
CSD - Los Osos Community Service District Monitoring Well
Private - Owned by a private party
NA - not available

Table 2
 Depth to Water
 (2006-Present)

Well ID	Depth to Water (feet)			
	October 2006*	August 2012	June 2013	January 2014
13G	39.33	40.25	40.90	42.76
13H	25.79	27.11	29.35	30.39
13L5r	21.50	22.36	22.81	23.80
13Q1r	83.58	84.48	85.20	85.83
17D	--	--	--	NM
17E9	91.50	89.00	93.05	90.23
17F4	--	43.89	44.98	44.65
17N4	--	--	--	NM
18A	--	--	--	NM
18B1r	17.83	19.27	20.90	22.24
18C1r	16.21	17.41	18.56	21.31
18E1	24.00	25.94	26.70	26.96
18J6r	19.50	23.90	23.49	26.77
18L3r	38.58	41.82	44.63	38.66
18L4r	19.52	20.60	21.73	22.54
18N1r	72.63	77.25	78.91	76.84
18R1	10.50	13.60	12.48	NM
24A	154.17	157.21	157.77	157.80
7K3r	51.17	51.96	52.96	53.64
7L3r	36.46	36.80	37.60	35.82
7N1	6.25	3.45	7.30	NM
7Q1	2.67	5.70	7.03	8.90
7R1r	21.00	21.95	23.19	23.95
8Ma	39.83	41.25	43.00	44.14
8Mb	40.17	41.90	43.84	44.99
8N2r	34.35	36.06	39.03	40.66

Notes: NM = Depth to water not measured
 -- = data not available

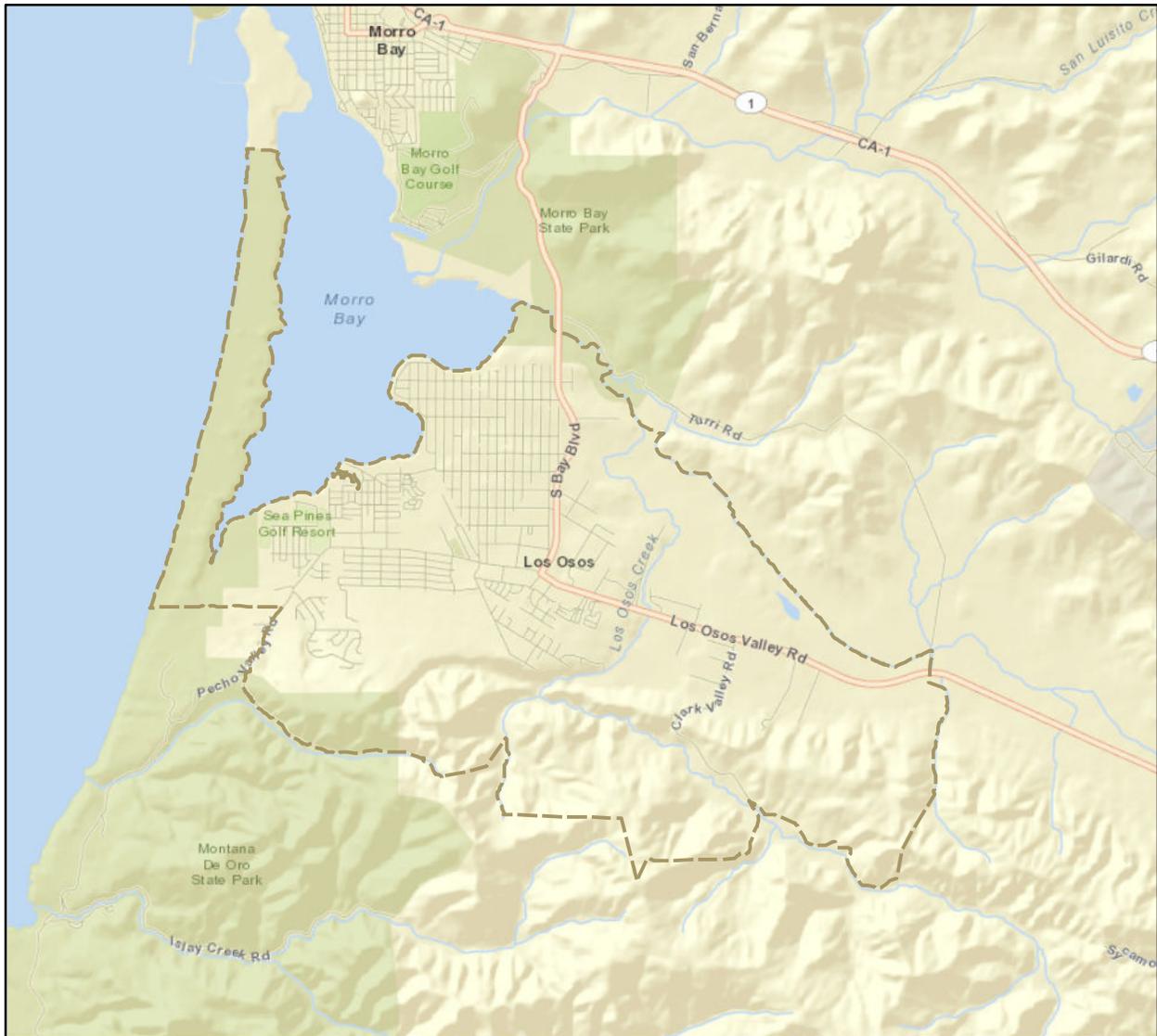
*October 2006 was last nitrate monitoring program sampling event prior to August 2012

Table 3
January 2014 Water Quality Results

Well ID	Sample Date	pH	TDS mg/L	Total N mg/L	NO ₃ ⁻ mg/L	NO ₂ ⁻ mg/L	NH ₃ ⁺ mg/L	Org. N mg/L	TKN mg/L	Na mg/L	Cl mg/L	SO ₄ mg/L	B mg/L
13G	01/09/14	6.27	440	12	13	ND	ND	ND	ND	72	140	17	0.0529
13H	01/10/14	6.52	140	4.4	3.6	ND	ND	0.56	0.56	17.4	12	11	0.0489
13L5r	01/09/14	6.3	435	10	10	ND	ND	ND	ND	113	99	27	0.118
13Q1r	01/09/14	7.06	795	24	19	ND	0.11	2.1	2.2	128	160	66	0.132
17D	01/09/14	6.69	405	20	19	ND	ND	ND	ND	64.2	94	32	0.0893
17E9	01/09/14	10.49	375	18	14	ND	1.4	3.5	4.9	45.6	64	24	0.0581
17F4	01/07/14	6.61	350	1.1	0.92	ND	ND	ND	ND	69.1	130	16	0.0238
17N4	01/08/14	5.95	225	7.9	7.4	ND	ND	0.56	0.56	33	46	15	0.0469
18A	01/09/14	6.35	400	7.6	16	ND	ND	0.56	0.56	50.4	97	33	0.122
18B1r	01/08/14	6.17	580	22	20	ND	ND	ND	ND	80.2	170	33	0.183
18C1r	01/10/14	6.27	545	16	18	ND	ND	ND	ND	91.6	150	49	0.161
18E1	01/10/14	6.37	270	16	8.9	ND	ND	7.6	7.6	48.6	63	21	0.0749
18J6r	01/07/14	6.44	340	17	12	ND	2.4	0.70	3.1	53.4	55	28	0.127
18L3r	01/07/14	6.47	215	10	9.4	ND	ND	0.56	0.56	38	54	17	0.0642
18L4r	01/06/14	6.24	430	16	18	ND	ND	ND	ND	62.7	120	33	0.136
18N1r	01/10/14	6.31	475	26	28	ND	ND	0.98	0.98	62.7	96	42	0.151
18R1	01/09/14	6.04	365	18	18	ND	ND	ND	ND	58.5	89	23	0.162
24A	01/09/14	6.63	410	15	15	ND	ND	1.5	1.5	54.1	130	7.1	ND
7K3r	01/08/14	6.78	560	15	15	ND	ND	ND	ND	96.1	160	42	0.137
7L3r	01/08/14	6.74	520	21	21	ND	ND	0.56	0.56	82.6	150	41	0.269
7N1	01/09/14	6.9	200	6.0	5.5	ND	ND	0.56	0.56	24.3	33	8.6	0.0325
7Q1	01/08/14	6.83	525	18	18	ND	ND	0.56	0.56	111	160	42	0.266
7R1r	01/08/14	6.3	530	19	18	ND	ND	1.4	1.4	73.1	160	45	0.165
8Ma	01/07/14	7.09	205	3.3	2.5	ND	ND	0.70	0.7	27.6	51	9.2	0.0205
8Mb	01/07/14	6.69	775	58	57	ND	ND	0.56	0.56	90.8	220	68	0.0784
8N2r	01/07/14	7.1	95	2.9	2.8	ND	ND	ND	ND	8.93	13	4.9	ND

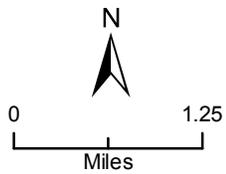
Notes: TDS=Total Dissolved Solids; NO₃⁻=Nitrate as Nitrogen; NO₂⁻=Nitrite as Nitrogen; NH₃⁺=Ammonia as Nitrogen; Org. N=Organic Nitrogen; TKN=Total Kjeldahl Nitrogen; Na=Sodium; Cl=Chloride; SO₄=Sulfate; B=Boron; DTW=Depth to Water; ND=Not Detected; See laboratory reports for practical quantitation limits; mg/L = milligrams per liter

Los Osos Wastewater Treatment Facility
January 2014 Baseline Groundwater Quality Monitoring



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 City of Los Osos



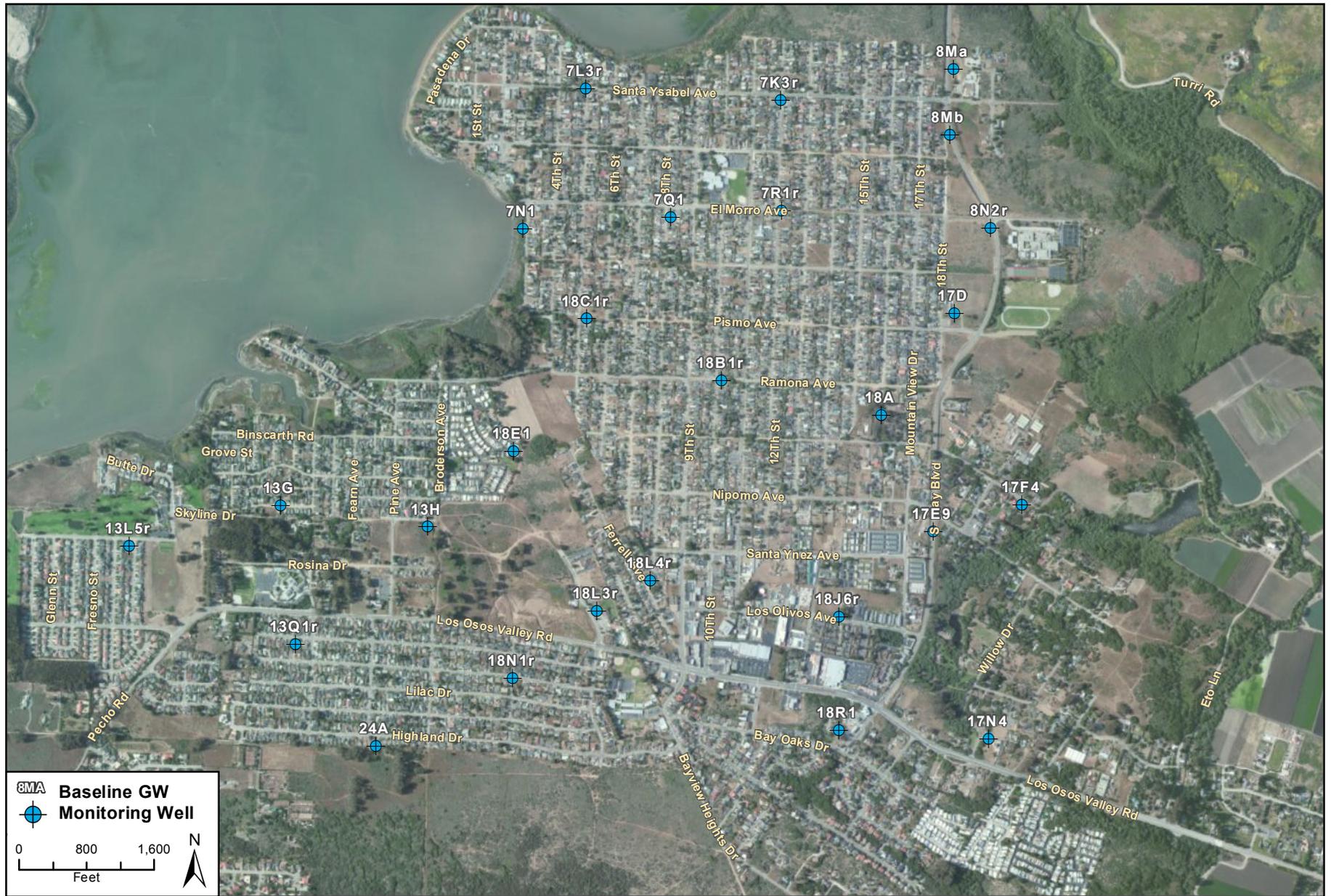
Vicinity Map

Figure 1

County of San Luis Obispo

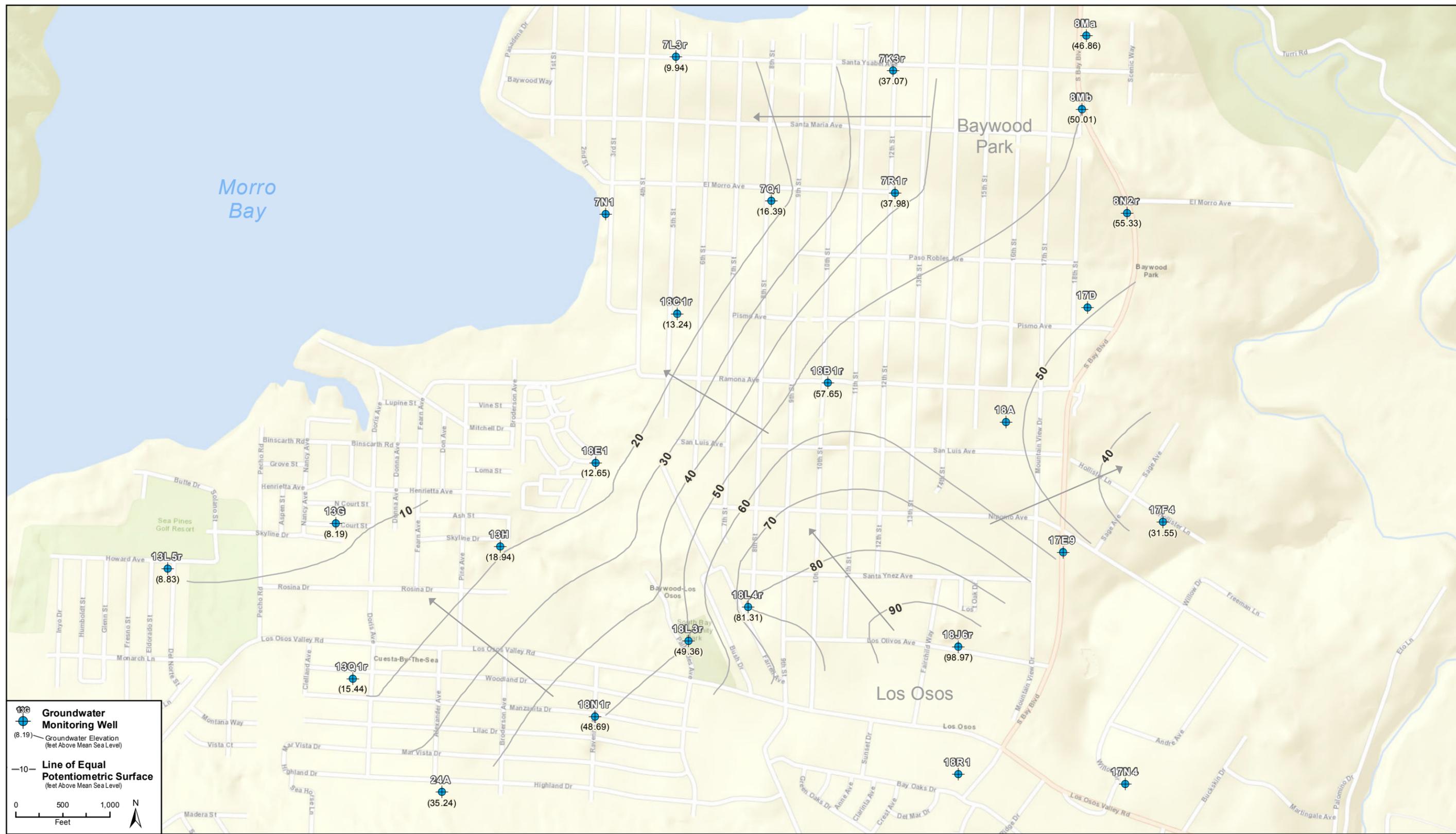


Los Osos Wastewater Treatment Facility
January 2014 Baseline Groundwater Quality Monitoring



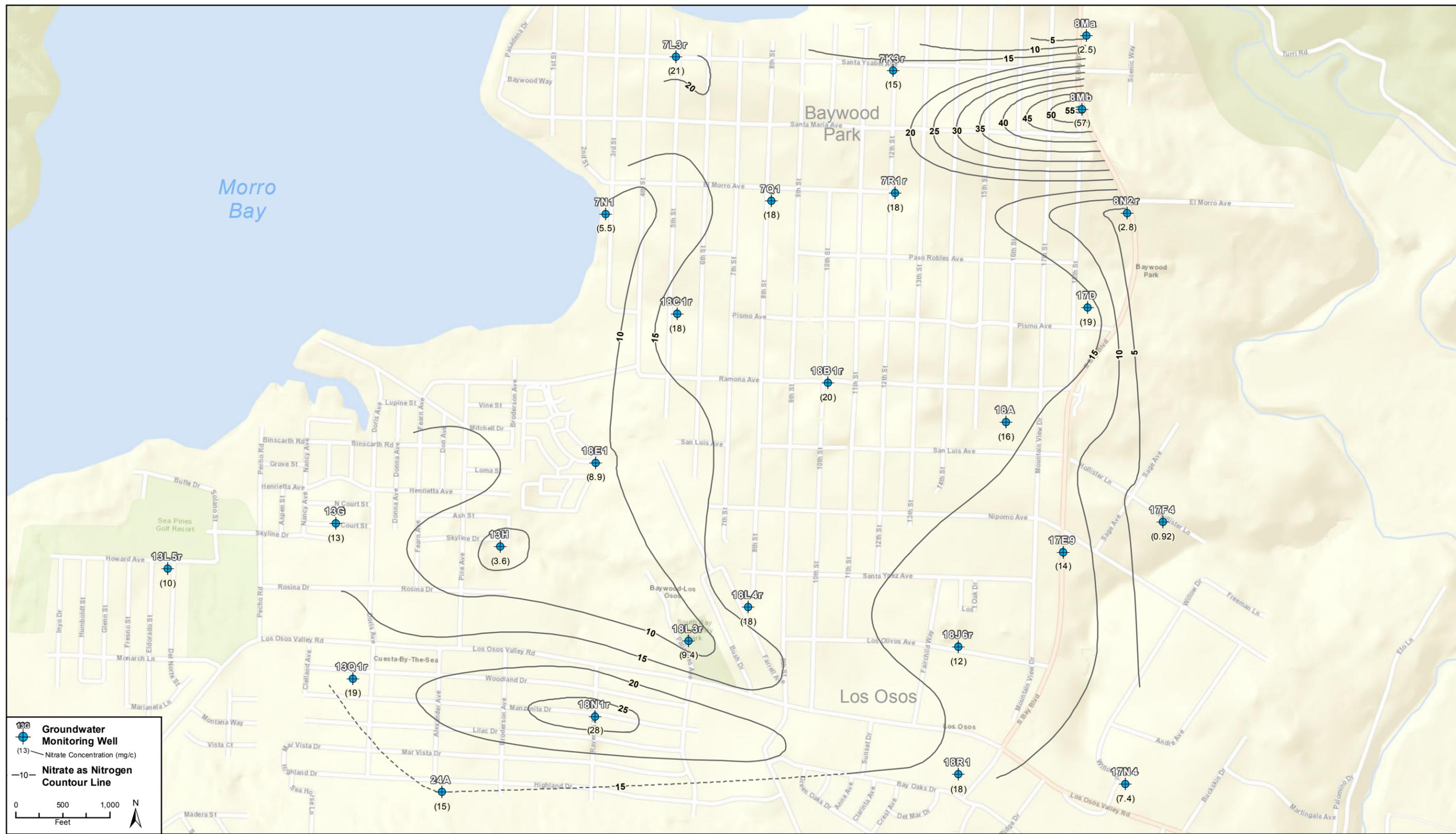
Baseline Groundwater Monitoring Well Locations

Figure 2



Groundwater Elevations and Contour Map

Figure 3
 County of San Luis Obispo



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Nitrate as Nitrogen Concentration Contour Map

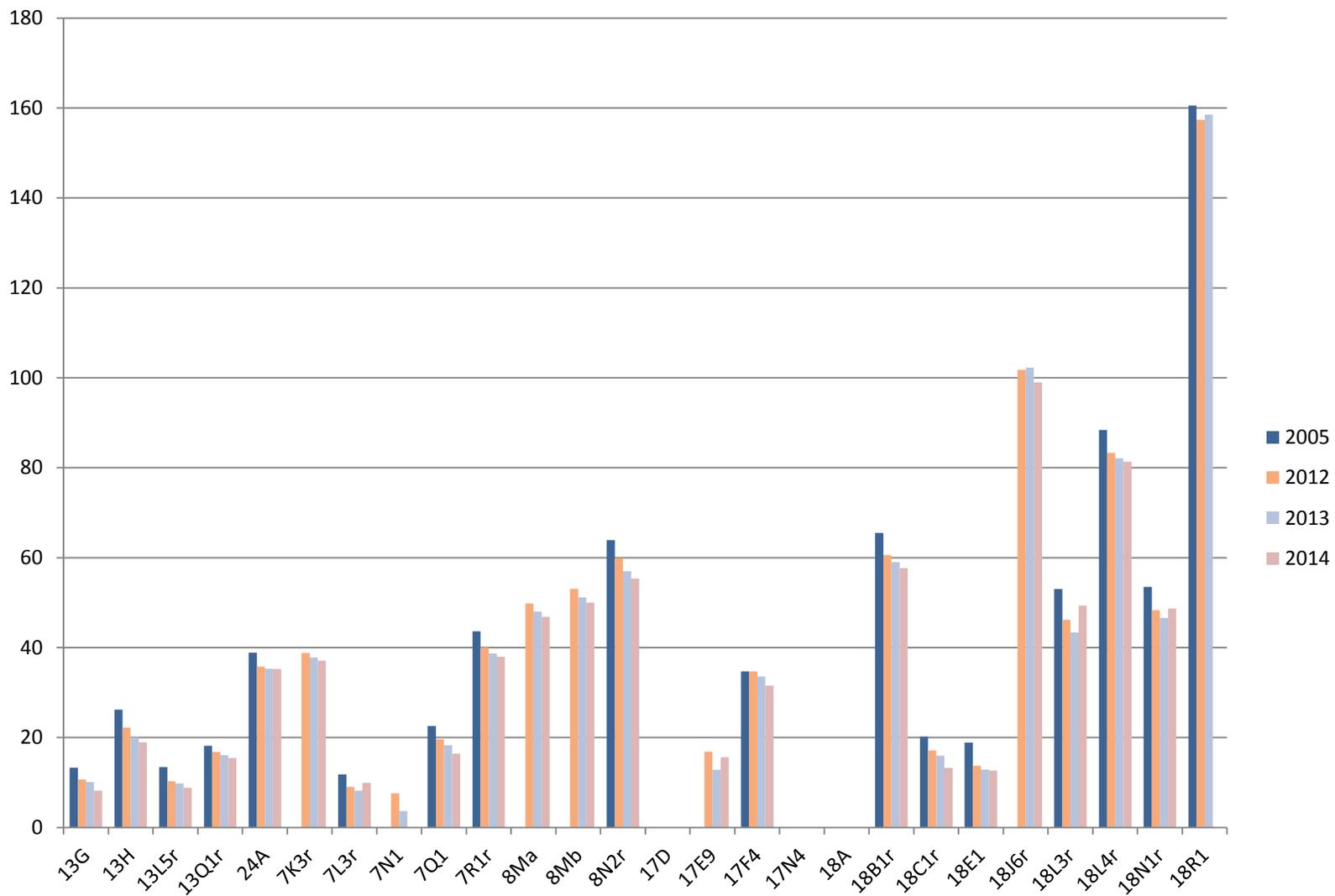


Figure 5. Historical Groundwater Elevations Graph
 Los Osos Water Treatment Facility
 County of San Luis Obispo

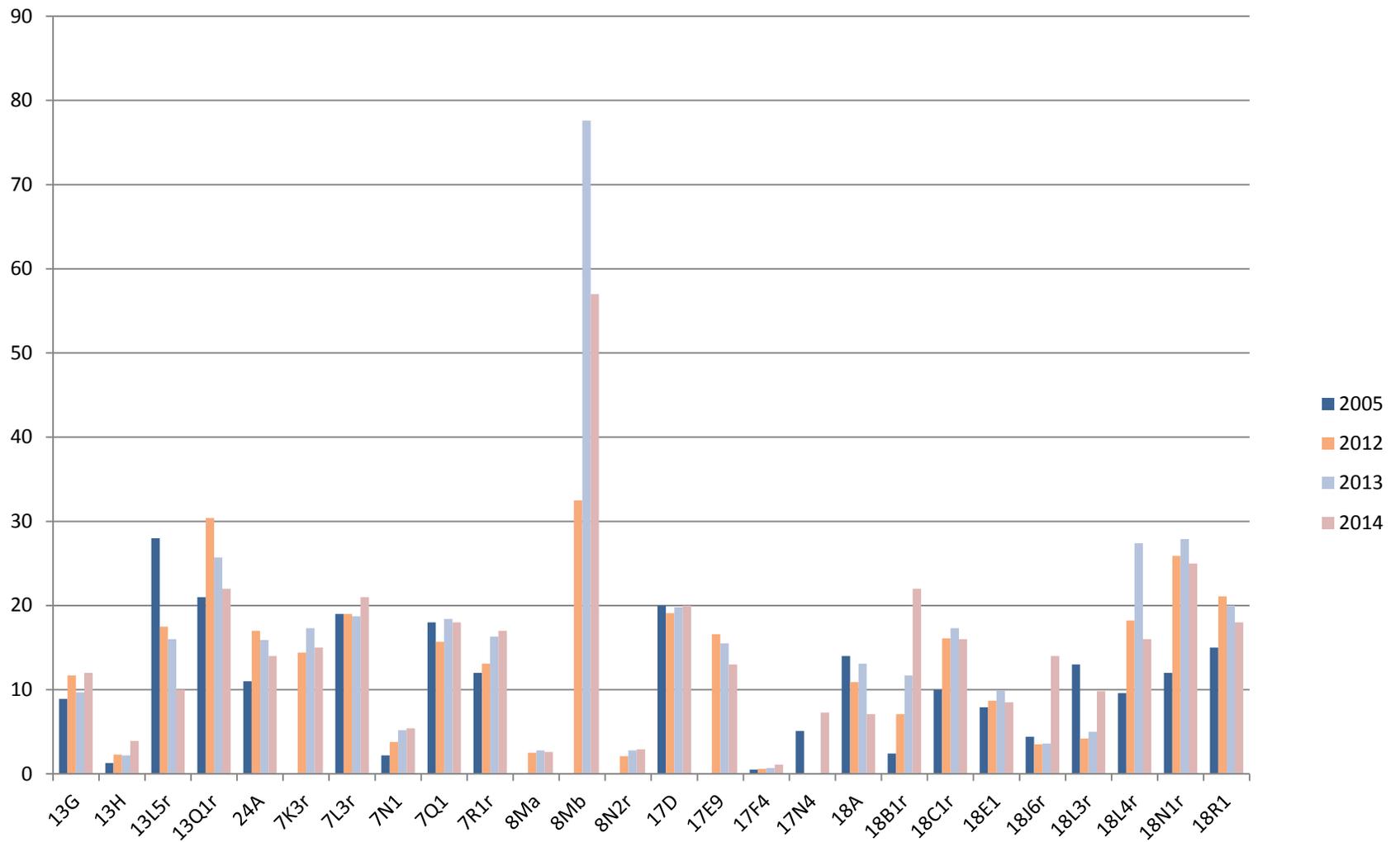


Figure 6. NO3 Concentration Graph
 Los Osos Water Recycling Facility
 County of San Luis Obispo

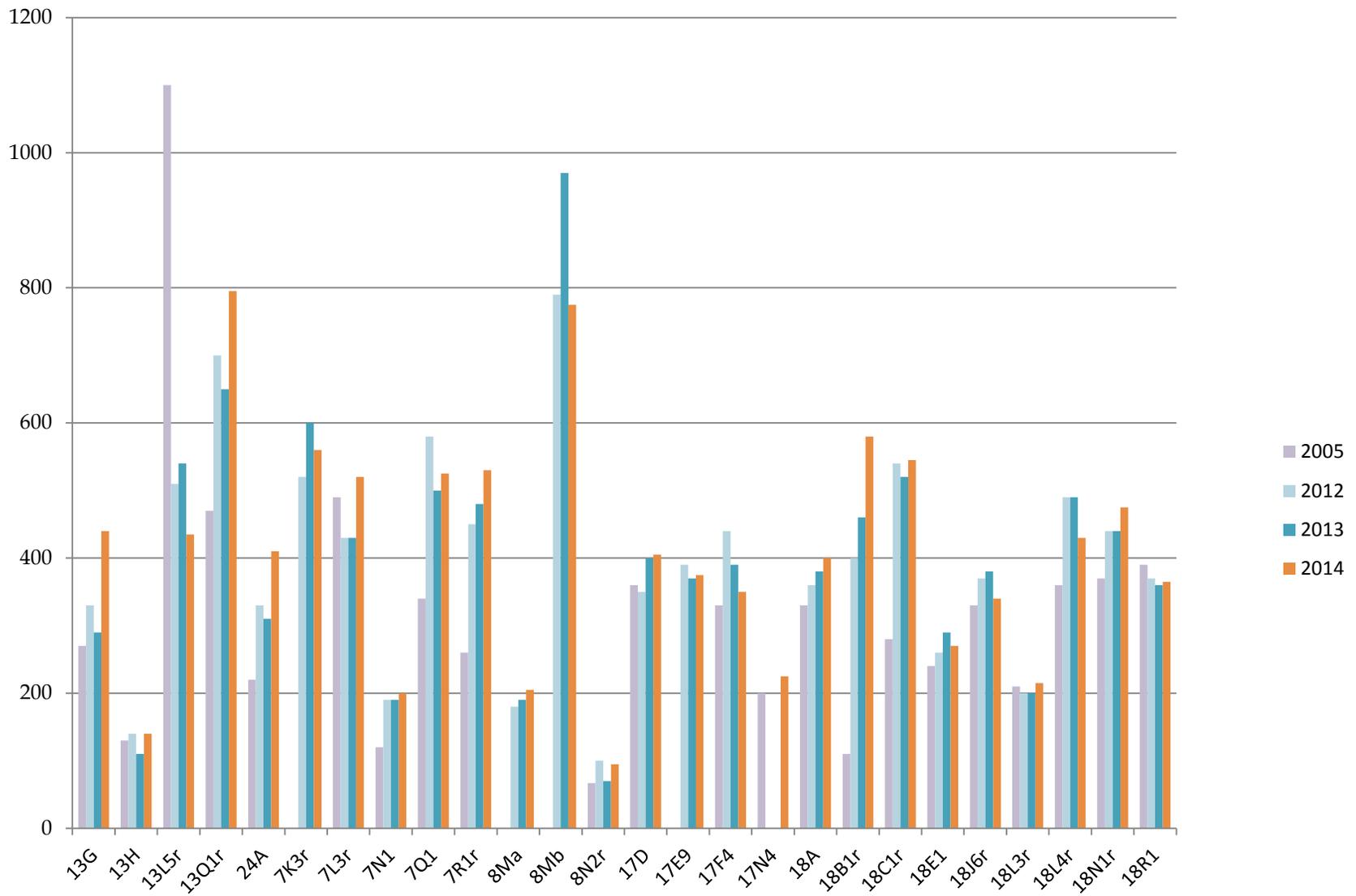


Figure 7. TDS Concentration Graph
 Los Osos Water Recycling Facility
 County of San Luis Obispo

Appendix A

Groundwater Sampling/Purging Data Logs

Rincon Consultants, Inc.

GROUND WATER SAMPLING/PURGING DATA SHEET

Job No: <u>13-01481</u>	Date: <u>1/7/14</u>
Project/Location: <u>Los Osos GW Monitoring</u>	Well Number: <u>8 Ma</u>
Observation Period Start: <u>1436</u> Stop: <u>1500</u>	Survey Reference Point: <u>NA</u>
Sampled By: <u>KS</u>	Witnessed By: <u>NA</u>

PURGING DATA

Type of Pump	<u>Gruntfos/Bailer</u>	Pump Inlet Depth (ft)	<u>44.5</u>
Well Diameter (in)	<u>2"</u>	Depth of Well (ft)	<u>45</u>
Initial/Static Depth to Water (ft)	<u>44.14</u>	Length of Water Column (ft)	<u>0.9</u>
Product Thickness (ft)	<u>NA</u>	Volume Multiplier (gal/ft)	<u>0.16</u>
One Casing Volume (gal)	<u>0.16</u>	Three Casing Volumes (gal)	<u>0.5</u>
Purge Time, Start	<u>1436</u>	Purge Time, Stop	<u>1500</u>
Total Purge Time (minutes)	<u>24</u>	Purge Rate (gpm)	<u>0.1</u>
Purge Volume (gal)	<u>2 gal</u>	Depth to Water (ft) at Sampling	<u>44.46</u>

CASING OR BOREHOLE VOLUME

0.5-inch Diameter = 0.010 gal/ft 0.75-inch Diameter = 0.023 gal/ft 1-inch Diameter = 0.041 gal/ft 1.5-inch Diameter = 0.092 gal/ft 2-inch Diameter = 0.16 gal/ft	4-inch Diameter = 0.65 gal/ft 6-inch Diameter = 1.46 gal/ft 9-inch Diameter = 3.30 gal/ft 12-inch Diameter = 5.87 gal/ft 15-inch Diameter = 9.18 gal/ft
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INDICATOR DATA

Volume Pumped (gal)	Before Purge							At Sampling		
TDS (ppm)	<u>136</u>	<u>129</u>	<u>127</u>	<u>126</u>	<u>127</u>			<u>127</u>		
Turbidity (measured or visual) cloudy, clear, muddy	<u>muddy</u>	<u>muddy</u>	<u>muddy</u>	<u>cloudy</u>	<u>cloudy</u>			<u>cloudy</u>		
Temperature (C)	<u>17.7</u>	<u>18.0</u>	<u>18.2</u>	<u>18.3</u>	<u>18.3</u>			<u>18.3</u>		
Conductivity (micromhos) <u>NS</u>	<u>273</u>	<u>257</u>	<u>255</u>	<u>253</u>	<u>254</u>			<u>254</u>		
pH	<u>7.21</u>	<u>7.14</u>	<u>7.14</u>	<u>7.13</u>	<u>7.12</u>			<u>7.12</u>		
Dissolved Oxygen (mg/L & %)	<u>3.20</u>	<u>33.9%</u>	<u>4.15</u>	<u>35.1%</u>	<u>4.23</u>	<u>44.8%</u>	<u>4.17</u>	<u>46.4%</u>	<u>4.16</u>	<u>44.1%</u>
Comments:	<u>Pumped well dry - purged / sampled w/ bailer</u>									
	Depth to Water at End of Purge (ft)							<u>NA</u>		
	Drawdown (ft)							<u>NA</u>		

MISCELLANEOUS DATA

Condition of Traffic Box: <u>GOOD</u>
Drum Identification labeling: <u>NA</u>
Water Level Indicator: <u>Bobinist</u>
Weather Conditions: <u>Sunny</u>

Comments: Well Recovery Calculation
 Static Depth to Water in feet + (0.2) (maximum Drawdown in feet) = Depth to Water at 80% Recovery

Sampled at: 1500

_____ + 0.2 * _____ = _____

Rincon Consultants, Inc.

GROUND WATER SAMPLING/PURGING DATA SHEET

Job No: 13-01481	Date: 1/7/14
Project/Location: Los Osos GW Monitoring	Well Number: 8N2r
Observation Period Start: 1550 Stop: 1612	Survey Reference Point: NA
Sampled By: KS	Witnessed By: NA

PURGING DATA

Type of Pump	Grinfos	Pump Inlet Depth (ft)	44.0
Well Diameter (in)	2	Depth of Well (ft)	44.62
Initial/Static Depth to Water (ft)	40.66	Length of Water Column (ft)	3.96
Product Thickness (ft)	NA	Volume Multiplier (gal/ft)	0.16
One Casing Volume (gal)	0.6336	Three Casing Volumes (gal)	1.9
Purge Time, Start	1550	Purge Time, Stop	1405
Total Purge Time (minutes)	22	Purge Rate (gpm)	0.1
Purge Volume (gal)	2	Depth to Water (ft) at Sampling	40.69

CASING OR BOREHOLE VOLUME

0.5-inch Diameter = 0.010 gal/ft 0.75-inch Diameter = 0.023 gal/ft 1-inch Diameter = 0.041 gal/ft 1.5-inch Diameter = 0.092 gal/ft 2-inch Diameter = 0.16 gal/ft	4-inch Diameter = 0.65 gal/ft 6-inch Diameter = 1.46 gal/ft 9-inch Diameter = 3.30 gal/ft 12-inch Diameter = 5.87 gal/ft 15-inch Diameter = 9.18 gal/ft
--	---

INDICATOR DATA

Volume Pumped (gal)	Before Purge								At Sampling
TDS (ppm)	53	50	50	51					51
Turbidity (measured or visual) cloudy, clear, muddy	clear	clear	clear	clear					clear
Temperature (C)	17.3	17.6	17.6	17.4					17.4
Conductivity (micromhos) <i>MS</i>	106	100	101	103					103
pH	7.29	7.27	7.20	7.19					7.19
Dissolved Oxygen (mg/L & %)	0.70 7.4%	0.96 10.1%	1.28 13.5%	1.54 15.5%					1.54 15.5%
Comments:									
Depth to Water at End of Purge (ft)									
Drawdown (ft)									

MISCELLANEOUS DATA

Condition of Traffic Box: <i>Good</i>
Drum Identification labeling: <i>NA</i>
Water Level Indicator: <i>Solinist</i>
Weather Conditions: <i>Sunny</i>

Comments: _____ Sampled at: 1612

Well Recovery Calculation
 Static Depth to Water in feet + (0.2) (maximum Drawdown in feet) = Depth to Water at 80% Recovery

_____ + 0.2 * _____ = _____

*Well is located on the west side of South Bay Blvd
 200 ft South of El Morro Ave. Monument in dirt next to curb*

Rincon Consultants, Inc.

GROUND WATER SAMPLING/PURGING DATA SHEET

Job No: 13-01481	Date: 1/7/14
Project/Location: Los Osos GW monitoring	Well Number: 8Mb
Observation Period Start: 1200 Stop: 1320	Survey Reference Point:
Sampled By: RS	Witnessed By:

PURGING DATA

Type of Pump: Bailer	Pump Inlet Depth (ft): NA
Well Diameter (in): 2"	Depth of Well (ft): 47
Initial/Static Depth to Water (ft): 45.30	Length of Water Column (ft): 1.7 ft
Product Thickness (ft): NA	Volume Multiplier (gal/ft): 0.16
One Casing Volume (gal): 0.272	Three Casing Volumes (gal): 0.816
Purge Time, Start: 1225	Purge Time, Stop: 1303
Total Purge Time (minutes): 30 mins	Purge Rate (gpm): 0.083
Purge Volume (gal): 2.5 gall	Depth to Water (ft) at Sampling: 45.60

CASING OR BOREHOLE VOLUME

0.5-inch Diameter = 0.010 gal/ft	4-inch Diameter = 0.65 gal/ft
0.75-inch Diameter = 0.023 gal/ft	6-inch Diameter = 1.46 gal/ft
1-inch Diameter = 0.041 gal/ft	9-inch Diameter = 3.30 gal/ft
1.5-inch Diameter = 0.092 gal/ft	12-inch Diameter = 5.87 gal/ft
2-inch Diameter = 0.16 gal/ft	15-inch Diameter = 9.18 gal/ft

INDICATOR DATA

Volume Pumped (gal)	1225	1256	1300	1303		At Sampling
TDS (ppm)	544	553	556	556		556
Turbidity (measured or visual) cloudy, clear, muddy	muddy	use	cloudy	cloudy	cloudy	cloudy
Temperature (C)	17.8	17.7	17.5	17.6		17.6
Conductivity (micromhos) us	1088	1107	1111	1114		1114
pH	6.64	6.63	6.67	6.61		6.61
Dissolved Oxygen (mg/L & %)		44.1%	42.2%	46.2%	46.9%	46.2%
Comments:	-Dry	4.17	4.04	4.22	4.18	4.22
Depth to Water at End of Purge (ft)						
Drawdown (ft)						

MISCELLANEOUS DATA

Condition of Traffic Box: Good

Drum Identification labeling: NA

Water Level Indicator: Solinst

Weather Conditions: Cloudy

Comments: Well Recovery Calculation
 Static Depth to Water in feet + (0.2) (maximum Drawdown in feet) = Depth to Water at 80% Recovery

Sampled at: 1310

_____ + 0.2 * _____ = _____

30 feet south of blue spigot across from driveway at 1279 18th street

Rincon Consultants, Inc.

GROUND WATER SAMPLING/PURGING DATA SHEET

Job No:	Date: 1/8/14
Project/Location: Los Osos Gwl Monitoring	Well Number: 7L3r
Observation Period Start: 1600 Stop:	Survey Reference Point:
Sampled By: KS	Witnessed By:

PURGING DATA

Type of Pump: Grinders	Pump Inlet Depth (ft): 38.8
Well Diameter (in): 2"	Depth of Well (ft): 44.93
Initial/Static Depth to Water (ft): 35.82	Length of Water Column (ft): 9.11
Product Thickness (ft): 0	Volume Multiplier (gal/ft): 0.16
One Casing Volume (gal): 1.46	Three Casing Volumes (gal): 4.37
Purge Time, Start: 16:10	Purge Time, Stop: 16:23
Total Purge Time (minutes): 13	Purge Rate (gpm): 0.54
Purge Volume (gal): 0.7	Depth to Water (ft) at Sampling: 36.25

CASING OR BOREHOLE VOLUME

0.5-inch Diameter = 0.010 gal/ft 0.75-inch Diameter = 0.023 gal/ft 1-inch Diameter = 0.041 gal/ft 1.5-inch Diameter = 0.092 gal/ft 2-inch Diameter = 0.16 gal/ft	4-inch Diameter = 0.65 gal/ft 6-inch Diameter = 1.46 gal/ft 9-inch Diameter = 3.30 gal/ft 12-inch Diameter = 5.87 gal/ft 15-inch Diameter = 9.18 gal/ft
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INDICATOR DATA

Volume Pumped (gal)	Before Purge							At Sampling
TDS (ppm)	419	425	419	410	411			411
Turbidity (measured or visual) cloudy, clear, muddy	clear	clear	clear	clear	clear			clear
Temperature (C)	15.9	16.5	17.3	17.3	17.4			17.4
Conductivity (micromhos)	807	807	795	791	794			794
pH	6.63	6.47	6.38	6.34	6.31			6.31
Dissolved Oxygen (mg/L & %)	4.8%	4.7%	4.9%	5.6%	6.2%			6.2%
Comments:	0.47	0.46	0.47	0.53	0.59			0.59
Depth to Water at End of Purge (ft)								
Drawdown (ft)								

MISCELLANEOUS DATA

Condition of Traffic Box: Good

Drum Identification labeling: ~~0~~

Water Level Indicator: Solinst

Weather Conditions: cloudy

Comments: Well Recovery Calculation
 Static Depth to Water in feet + (0.2) (maximum Drawdown in feet) = Depth to Water at 80% Recovery

Sampled at: 1625

_____ + 0.2 * _____ = 37.64

Well next to gate at 1199 5th / Santa Ysabel

Rincon Consultants, Inc.
GROUND WATER SAMPLING/PURGING DATA SHEET

Job No: <u>13-01481</u>	Date: <u>1/7/14</u>
Project/Location: <u>48218 LOS OSOS GW monitoring</u>	Well Number: <u>1843v</u>
Observation Period Start: <u>10:26 AM 940</u> Stop: <u>1040</u>	Survey Reference Point:
Sampled By: <u>KS</u>	Witnessed By:

PURGING DATA			
Type of Pump	<u>Grunfos</u>	Pump Inlet Depth (ft)	<u>35</u>
Well Diameter (in)	<u>2</u>	Depth of Well (ft)	103.10 <u>49.51</u>
Initial/Static Depth to Water (ft)	<u>38.66</u>	Length of Water Column (ft)	<u>10.85</u>
Product Thickness (ft)	<u>NA</u>	Volume Multiplier (gal/ft)	<u>0.16 gal/ft</u>
One Casing Volume (gal)	<u>1.736</u>	Three Casing Volumes (gal)	<u>5.2 gal</u>
Purge Time, Start	<u>10:21</u>	Purge Time, Stop	<u>10:32</u>
Total Purge Time (minutes)	10:32 <u>11</u>	Purge Rate (gpm)	<u>0.826</u>
Purge Volume (gal)	<u>9</u>	Depth to Water (ft) at Sampling	<u>38.70</u>

CASING OR BOREHOLE VOLUME	
0.5-inch Diameter = 0.010 gal/ft 0.75-inch Diameter = 0.023 gal/ft 1-inch Diameter = 0.041 gal/ft 1.5-inch Diameter = 0.092 gal/ft 2-inch Diameter = 0.16 gal/ft	4-inch Diameter = 0.65 gal/ft 6-inch Diameter = 1.46 gal/ft 9-inch Diameter = 3.30 gal/ft 12-inch Diameter = 5.87 gal/ft 15-inch Diameter = 9.18 gal/ft

INDICATOR DATA							
Volume Pumped (gal)	Before Purge						At Sampling
TDS (ppm)	<u>115</u>	<u>144</u>	<u>154</u>	<u>157</u>	<u>160</u>		<u>160</u>
Turbidity (measured or visual) cloudy, clear, muddy	<u>cloudy</u>	<u>clear</u>	<u>clear</u>	<u>clear</u>	<u>clear</u>		<u>clear</u>
Temperature (C)	<u>17.9</u>	<u>18.3</u>	<u>18.4</u>	<u>18.4</u>	<u>18.2</u>		<u>18.2</u>
Conductivity (micromhos)	<u>232</u>	<u>289</u>	<u>307</u>	<u>316</u>	<u>320</u>		<u>320</u>
pH	<u>5.76</u>	<u>5.94</u>	<u>5.98</u>	<u>6.02</u>	<u>6.08</u>		<u>6.08</u>
Dissolved Oxygen (mg/L & %)	<u>50.1%</u>	<u>54.1%</u>	<u>46.9</u>	<u>45.8</u>	<u>47.6</u>		<u>47.6</u>
Comments:	<u>4.84</u>	<u>5.15</u>	<u>4.20</u>	<u>4.29</u>	<u>4.25</u>		<u>4.25</u>
Depth to Water at End of Purge (ft)							
Drawdown (ft)							

MISCELLANEOUS DATA	
Condition of Traffic Box:	<u>Good</u>
Drum Identification labeling:	<u>NA</u>
Water Level Indicator:	<u>Solinst</u>
Weather Conditions:	<u>Sunny</u>
Comments:	Sampled at: <u>1032</u>
Well Recovery Calculation Static Depth to Water in feet + (0.2) (maximum Drawdown in feet) = Depth to Water at 80% Recovery <u>38.66</u> + 0.2 * 103.10 = _____	

located on sidewalk directly across from LIBRARY EXIT
 N. of tennis court on east side of street

Rincon Consultants, Inc.
GROUND WATER SAMPLING/PURGING DATA SHEET

Job No: 13-01481	Date: 1/7/14
Project/Location: Los Osos b/w Monitoring	Well Number: NA 18J6R
Observation Period Start: 1100 Stop: 1150	Survey Reference Point:
Sampled By: KS	Witnessed By:

PURGING DATA

Type of Pump: Gruntfos	Pump Inlet Depth (ft): 24
Well Diameter (in): 2"	Depth of Well (ft): 33.20
Initial/Static Depth to Water (ft): 26.81	Length of Water Column (ft): 6.39
Product Thickness (ft): NA	Volume Multiplier (gal/ft): 0.16
One Casing Volume (gal): 1.022	Three Casing Volumes (gal): 3.067
Purge Time, Start: 1100	Purge Time, Stop: 1145
Total Purge Time (minutes): 45	Purge Rate (gpm): 0.067
Purge Volume (gal): 3	Depth to Water (ft) at Sampling:

CASING OR BOREHOLE VOLUME

0.5-inch Diameter = 0.010 gal/ft	4-inch Diameter = 0.65 gal/ft
0.75-inch Diameter = 0.023 gal/ft	6-inch Diameter = 1.46 gal/ft
1-inch Diameter = 0.041 gal/ft	9-inch Diameter = 3.30 gal/ft
1.5-inch Diameter = 0.092 gal/ft	12-inch Diameter = 5.87 gal/ft
2-inch Diameter = 0.16 gal/ft	15-inch Diameter = 9.18 gal/ft

INDICATOR DATA

Volume Pumped (gal)	Before Purge						At Sampling
TDS (ppm)	272	249					249
Turbidity (measured or visual) cloudy, clear, muddy	cloudy	cloudy					cloudy
Temperature (C)	20.0	20.0					20.0
Conductivity (micromhos)	538	499					499
pH	6.18	6.20					6.21
Dissolved Oxygen (mg/L & %)	16.0%	26.1%					26.1%
Comments:	1.38	2.54					2.45
Depth to Water at End of Purge (ft)		33.5					
Drawdown (ft)							

Purged well dry

MISCELLANEOUS DATA

Condition of Traffic Box: Good

Drum Identification labeling: NA

Water Level Indicator: Solinst

Weather Conditions: cloudy

Comments: Well Recovery Calculation
 Static Depth to Water in feet + (0.2) (maximum Drawdown in feet) = Depth to Water at 80% Recovery
 26.81 + 0.2 = 27.01

Sampled at: 11:45

Located LOS OLIVOS ~~St~~ east of Fairchild North side of Street, Directly east of Mail Box @ 1250 LOS OLIVOS; photo facing # North

Rincon Consultants, Inc.

GROUND WATER SAMPLING/PURGING DATA SHEET

Job No:	Date: 1/8/14
Project/Location: Cos Osos GW Monitoring	Well Number: 18B1r
Observation Period Start: 1000 Stop: 1040	Survey Reference Point:
Sampled By: KS	Witnessed By:

PURGING DATA

Type of Pump: Grunfos	Pump Inlet Depth (ft): 19
Well Diameter (in): 2"	Depth of Well (ft): 31.77
Initial/Static Depth to Water (ft): 22.24	Length of Water Column (ft): 9.53
Product Thickness (ft): NA	Volume Multiplier (gal/ft): 0.16
One Casing Volume (gal): 1.52	Three Casing Volumes (gal): 4.6
Purge Time, Start: 1011	Purge Time, Stop: 1020
Total Purge Time (minutes): 9	Purge Rate (gpm): 0.89
Purge Volume (gal): 8	Depth to Water (ft) at Sampling: 22.42

CASING OR BOREHOLE VOLUME

0.5-inch Diameter = 0.010 gal/ft	4-inch Diameter = 0.65 gal/ft
0.75-inch Diameter = 0.023 gal/ft	6-inch Diameter = 1.46 gal/ft
1-inch Diameter = 0.041 gal/ft	9-inch Diameter = 3.30 gal/ft
1.5-inch Diameter = 0.092 gal/ft	12-inch Diameter = 5.87 gal/ft
2-inch Diameter = 0.16 gal/ft	15-inch Diameter = 9.18 gal/ft

INDICATOR DATA

Volume Pumped (gal)	Before Purge						At Sampling
TDS (ppm)	438	437	444	442	442		442
Turbidity (measured or visual) cloudy, clear, muddy	clear	clear	clear	clear			clear
Temperature (C)	18.6	18.4	18.3	18.2			18.2
Conductivity (micromhos)	875	842	852	850			850
pH	5.30	5.78	5.78	5.76			5.76
Dissolved Oxygen (mg/L & %)	0.43 4.1%	0.48 5.1%	0.49 5.2%	0.50 5.3%			0.50 5.3%
Comments:							
Depth to Water at End of Purge (ft)							
Drawdown (ft)							

MISCELLANEOUS DATA

Condition of Traffic Box: Good

Drum Identification labeling: \emptyset

Water Level Indicator: Solinst

Weather Conditions: Sunny

Comments: Well Recovery Calculation
 Static Depth to Water in feet + (0.2) (maximum Drawdown in feet) = Depth to Water at 80% Recovery

Sampled at: 10 20

_____ + 0.2 * _____ = 24.15

Well under SW Quadrant of the pine tree and iceplant - had to dig at a blue flag in front of 1056 10th street/Ramona Ave

Rincon Consultants, Inc.

GROUND WATER SAMPLING/PURGING DATA SHEET

Job No:	Date: 1/9/14
Project/Location: Los Osos GW Monitoring	Well Number: 13Q1R
Observation Period Start: 1210 Stop: 1340	Survey Reference Point:
Sampled By: TD	Witnessed By:

PURGING DATA

Type of Pump: hand purge	Pump Inlet Depth (ft): 85
Well Diameter (in): 21	Depth of Well (ft): 101.85
Initial/Static Depth to Water (ft): 85.83	Length of Water Column (ft): 16.02
Product Thickness (ft): NA	Volume Multiplier (gal/ft): 0.16
One Casing Volume (gal): 2.56	Three Casing Volumes (gal): 7.68
Purge Time, Start: 1230	Purge Time, Stop: 1300
Total Purge Time (minutes): 30	Purge Rate (gpm): 0.26
Purge Volume (gal): 7.7	Depth to Water (ft) at Sampling: 85.85

CASING OR BOREHOLE VOLUME

0.5-inch Diameter = 0.010 gal/ft	4-inch Diameter = 0.65 gal/ft
0.75-inch Diameter = 0.023 gal/ft	6-inch Diameter = 1.46 gal/ft
1-inch Diameter = 0.041 gal/ft	9-inch Diameter = 3.30 gal/ft
1.5-inch Diameter = 0.092 gal/ft	12-inch Diameter = 5.87 gal/ft
2-inch Diameter = 0.16 gal/ft	15-inch Diameter = 9.18 gal/ft

INDICATOR DATA

Volume Pumped (gal)	Before Purge	2.5	5	7.7				At Sampling
TDS (ppm)	544	453	401	407	/	/	/	488
Turbidity (measured or visual) cloudy, clear, muddy	cloudy	cloudy	muddy	muddy	/	/	/	muddy
Temperature (C)	17.9	17.5	16.9	16.8	/	/	/	17.4
Conductivity (micromhos)	1049	873	773	785	/	/	/	933
pH	6.37	6.44	6.14	6.10	/	/	/	6.39
Dissolved Oxygen (mg/L & %)	4.32	4.59	4.56	4.40	/	/	/	4.29
Comments:								
Depth to Water at End of Purge (ft)				85.85				
Drawdown (ft)				0.02				

MISCELLANEOUS DATA

Condition of Traffic Box: Good

Drum Identification labeling: NA

Water Level Indicator: Solonist

Weather Conditions: cloudy

Comments: Well Recovery Calculation
 Static Depth to Water in feet + (0.2) (maximum Drawdown in feet) = Depth to Water at 80% Recovery

Sampled at: 1330

_____ + 0.2 * _____ = _____

Located in right of way @ 333 Woodland Dr

Rincon Consultants, Inc.
GROUND WATER SAMPLING/PURGING DATA SHEET

Job No:	Date: 1/9/14
Project/Location: Los Osos GW Monitoring	Well Number: 244
Observation Period Start: 1400 Stop: 1610	Survey Reference Point:
Sampled By: TD	Witnessed By:

PURGING DATA

Type of Pump: hand Bailered	Pump Inlet Depth (ft): 157.80 155
Well Diameter (in): 2"	Depth of Well (ft): 168.16
Initial/Static Depth to Water (ft): 157.80	Length of Water Column (ft): 108.36 9.36
Product Thickness (ft): N/A	Volume Multiplier (gal/ft): 6.16
One Casing Volume (gal): 1.5	Three Casing Volumes (gal): 4.5
Purge Time, Start: 1400	Purge Time, Stop: 1600
Total Purge Time (minutes): 120	Purge Rate (gpm): 0.042
Purge Volume (gal): 5	Depth to Water (ft) at Sampling: 157.8

CASING OR BOREHOLE VOLUME

0.5-inch Diameter = 0.010 gal/ft	4-inch Diameter = 0.65 gal/ft
0.75-inch Diameter = 0.023 gal/ft	6-inch Diameter = 1.46 gal/ft
1-inch Diameter = 0.041 gal/ft	9-inch Diameter = 3.30 gal/ft
1.5-inch Diameter = 0.092 gal/ft	12-inch Diameter = 5.87 gal/ft
2-inch Diameter = 0.16 gal/ft	15-inch Diameter = 9.18 gal/ft

INDICATOR DATA

Volume Pumped (gal)	Before Purge	1.5	3.00	4.5				At Sampling
TDS (ppm)	271	278	279	281				286
Turbidity (measured or visual) cloudy, clear, muddy	5 ⁺ cloudy	cloudy	cloudy	cloudy				cloudy
Temperature (C)	14.3	15.4	15.5	15.6				15.2
Conductivity (micromhos)	521	538	541	550				543
pH	7.00	6.55	6.52	6.50				6.55
Dissolved Oxygen (mg/L & %)	4.16	4.29	4.32	4.41				4.47
Comments:								
Depth to Water at End of Purge (ft)								
Drawdown (ft)								

MISCELLANEOUS DATA

Condition of Traffic Box: Good

Drum Identification Labeling: NA

Water Level Indicator: Solinst

Weather Conditions: Sunny

Comments: Well Recovery Calculation
 Static Depth to Water in feet + (0.2) (maximum Drawdown in feet) = Depth to Water at 80% Recovery

Sampled at: 1600

_____ + 0.2 * _____ = _____

Rincon Consultants, Inc.

GROUND WATER SAMPLING/PURGING DATA SHEET

Job No:	Date: 1/9/14
Project/Location: Los Osos GW Monitoring	Well Number: 13L 54
Observation Period Start: 1440 Stop: 1510	Survey Reference Point:
Sampled By: KS	Witnessed By:

PURGING DATA

Type of Pump: Grunfos	Pump Inlet Depth (ft): 21
Well Diameter (in): 2"	Depth of Well (ft): 31.4
Initial/Static Depth to Water (ft): 23.80	Length of Water Column (ft): 7.6
Product Thickness (ft): NA	Volume Multiplier (gal/ft): 0.16
One Casing Volume (gal): 1.2	Three Casing Volumes (gal): 3.6
Purge Time, Start: 1500	Purge Time, Stop: 1509
Total Purge Time (minutes): 9	Purge Rate (gpm): 1.44
Purge Volume (gal): 13 gal	Depth to Water (ft) at Sampling:

CASING OR BOREHOLE VOLUME

0.5-inch Diameter = 0.010 gal/ft	4-inch Diameter = 0.65 gal/ft
0.75-inch Diameter = 0.023 gal/ft	6-inch Diameter = 1.46 gal/ft
1-inch Diameter = 0.041 gal/ft	9-inch Diameter = 3.30 gal/ft
1.5-inch Diameter = 0.092 gal/ft	12-inch Diameter = 5.87 gal/ft
2-inch Diameter = 0.16 gal/ft	15-inch Diameter = 9.18 gal/ft

INDICATOR DATA

Volume Pumped (gal)	Before Purge						At Sampling
TDS (ppm)	240	248	259	263	268		268
Turbidity (measured or visual) cloudy, clear, muddy	clear	clear	clear	clear	clear		clear
Temperature (C)	64.5	64.5	64.5	65.9	64.8		64.4
Conductivity (micromhos)	481	499	519	527	528		525
pH	6.73	6.66	6.57	6.57	6.49		6.48
Dissolved Oxygen (mg/L & %)	2.2%	2.3%	2.4%	2.1%	2.8%		2.9%
Comments:	0.19	0.21	0.22	0.25	0.27		0.29
Depth to Water at End of Purge (ft)							
Drawdown (ft)							

MISCELLANEOUS DATA

Condition of Traffic Box: Good

Drum Identification labeling: NA

Water Level Indicator: Solinst

Weather Conditions: Sunny

Comments: Well Recovery Calculation
 Static Depth to Water in feet + (0.2) (maximum Drawdown in feet) = Depth to Water at 80% Recovery

Sampled at: 1510

_____ + 0.2 * _____ = _____

Located on the SW corner of Del Norte Stand
 Howard Ave across from 2104 Del Norte St.

Rincon Consultants, Inc.

GROUND WATER SAMPLING/PURGING DATA SHEET

Job No:	Date: <u>1/9/14</u>
Project/Location: <u>Cos Osos Groundwater Monitoring</u>	Well Number: <u>136</u>
Observation Period Start: <u>1336</u> Stop: <u>1420</u>	Survey Reference Point:
Sampled By: <u>KS</u>	Witnessed By:

PURGING DATA

Type of Pump	<u>Grunfos</u>	Pump Inlet Depth (ft)	<u>40</u>
Well Diameter (in)	<u>2"</u>	Depth of Well (ft)	<u>49.3</u>
Initial/Static Depth to Water (ft)	<u>42.76</u>	Length of Water Column (ft)	<u>6.54</u>
Product Thickness (ft)	<u>NA</u>	Volume Multiplier (gal/ft)	<u>0.16</u>
One Casing Volume (gal)	<u>1.1</u>	Three Casing Volumes (gal)	<u>3.3</u>
Purge Time, Start	<u>1336</u>	Purge Time, Stop	<u>1410</u>
Total Purge Time (minutes)	<u>34</u>	Purge Rate (gpm)	<u>0.118</u>
Purge Volume (gal)	<u>4 gall</u>	Depth to Water (ft) at Sampling	<u>42.79</u>

CASING OR BOREHOLE VOLUME

0.5-inch Diameter = 0.010 gal/ft 0.75-inch Diameter = 0.023 gal/ft 1-inch Diameter = 0.041 gal/ft 1.5-inch Diameter = 0.092 gal/ft 2-inch Diameter = 0.16 gal/ft	4-inch Diameter = 0.65 gal/ft 6-inch Diameter = 1.46 gal/ft 9-inch Diameter = 3.30 gal/ft 12-inch Diameter = 5.87 gal/ft 15-inch Diameter = 9.18 gal/ft
--	---

INDICATOR DATA

Volume Pumped (gal)	Before Purge							At Sampling
TDS (ppm)	<u>252</u>	<u>274</u>	<u>274</u>	<u>275</u>				<u>275</u>
Turbidity (measured or visual) cloudy, clear, muddy	<u>clear</u>	<u>clear</u>	<u>clear</u>	<u>clear</u>				<u>clear</u>
Temperature (C)	<u>69.2</u>	<u>63.6</u>	<u>63.3</u>	<u>63.1</u>				<u>63.1</u>
Conductivity (microhm/cm)	<u>505</u>	<u>550</u>	<u>550</u>	<u>548</u>				<u>548</u>
pH	<u>6.60</u>	<u>6.44</u>	<u>6.37</u>	<u>6.40</u>				<u>6.40</u>
Dissolved Oxygen (mg/L & %)	<u>0.29</u>	<u>0.32</u>	<u>0.33</u>	<u>0.33</u>				<u>0.33</u>
Comments:	<u>3.1%</u>	<u>3.4%</u>	<u>3.4%</u>	<u>3.4%</u>				<u>3.4%</u>
Depth to Water at End of Purge (ft)								
Drawdown (ft)								

MISCELLANEOUS DATA

Condition of Traffic Box: Good

Drum Identification labeling: NA

Water Level Indicator: Solinst

Weather Conditions: cloudy

Comments: Well Recovery Calculation
 Static Depth to Water in feet + (0.2) (maximum Drawdown in feet) = Depth to Water at 80% Recovery

Sampled at: 1410

_____ + 0.2 * _____ = _____

Rincon Consultants, Inc.
GROUND WATER SAMPLING/PURGING DATA SHEET

Job No:	Date: 1/10/14
Project/Location: Lososos GW Monitoring	Well Number: 18E1
Observation Period Start: 0930 Stop: 1145	Survey Reference Point:
Sampled By:	Witnessed By:

PURGING DATA

Type of Pump: Granfos	Pump Inlet Depth (ft): 24
Well Diameter (in): 6"	Depth of Well (ft): 92.1
Initial/Static Depth to Water (ft): 26.96	Length of Water Column (ft): 65.14
Product Thickness (ft): 0	Volume Multiplier (gal/ft): 1.46
One Casing Volume (gal): 95.1	Three Casing Volumes (gal): 285
Purge Time, Start: 1005	Purge Time, Stop: 1130
Total Purge Time (minutes): 25	Purge Rate (gpm): 3.6 galls
Purge Volume (gal): 90	Depth to Water (ft) at Sampling: 27.30

CASING OR BOREHOLE VOLUME

0.5-inch Diameter = 0.010 gal/ft	4-inch Diameter = 0.65 gal/ft
0.75-inch Diameter = 0.023 gal/ft	6-inch Diameter = 1.46 gal/ft
1-inch Diameter = 0.041 gal/ft	9-inch Diameter = 3.30 gal/ft
1.5-inch Diameter = 0.092 gal/ft	12-inch Diameter = 5.87 gal/ft
2-inch Diameter = 0.16 gal/ft	15-inch Diameter = 9.18 gal/ft

INDICATOR DATA

Volume Pumped (gal)	Before Purge	1031	1045	285				At Sampling
TDS (ppm)	208	186	184	187				186
Turbidity (measured or visual) cloudy, clear, muddy	clear	clear	clear	clear				clear
Temperature (C)	15.8	16.9	16.9	17.2				17.1
Conductivity (micromhos)	418	373	370	379				378
pH	6.71	6.72	6.70	6.74				6.75
Dissolved Oxygen (mg/L & %)	6.7%	10.8%	13.4%	14.7%				14.8%
Comments:	0.66	1.06	1.29	1.42				1.40
Depth to Water at End of Purge (ft)								
Drawdown (ft)								

MISCELLANEOUS DATA

Condition of Traffic Box: Good

Drum Identification labeling: NA

Water Level Indicator: Solinist

Weather Conditions: Sunny

Comments: Well Recovery Calculation
 Static Depth to Water in feet + (0.2) (maximum Drawdown in feet) = Depth to Water at 80% Recovery

_____ + 0.2 * _____ = 39.90

Sampled at: 1130

Well is located in the front yard of house #29 - hidden under a fake rock

845/57all
 16.85/gall/min
 605/45
 16.85 = 3.57 galls

Rincon Consultants, Inc.

GROUND WATER SAMPLING/PURGING DATA SHEET

Job No:	Date: 1/10/14
Project/Location: Cos Osos GW Monitoring	Well Number: 134
Observation Period Start: 11:10 Stop: 1238	Survey Reference Point:
Sampled By: TD	Witnessed By:

PURGING DATA

Type of Pump: Hand Bail	Pump Inlet Depth (ft): NA
Well Diameter (in): 2	Depth of Well (ft): 34.6
Initial/Static Depth to Water (ft): 30.39	Length of Water Column (ft): 4.21
Product Thickness (ft): 1	Volume Multiplier (gal/ft): 0.16
One Casing Volume (gal): 67	Three Casing Volumes (gal): 2.02
Purge Time, Start: 1115	Purge Time, Stop: 1139
Total Purge Time (minutes): 24	Purge Rate (gpm): 0.083
Purge Volume (gal): 2	Depth to Water (ft) at Sampling: 30.40

CASING OR BOREHOLE VOLUME

0.5-inch Diameter = 0.010 gal/ft	4-inch Diameter = 0.65 gal/ft
0.75-inch Diameter = 0.023 gal/ft	6-inch Diameter = 1.46 gal/ft
1-inch Diameter = 0.041 gal/ft	9-inch Diameter = 3.30 gal/ft
1.5-inch Diameter = 0.092 gal/ft	12-inch Diameter = 5.87 gal/ft
2-inch Diameter = 0.16 gal/ft	15-inch Diameter = 9.18 gal/ft

INDICATOR DATA

Volume Pumped (gal)	Before Purge	-67	0.74	2			At Sampling
TDS (ppm)	89	86	83	99			99
Turbidity (measured or visual) cloudy, clear, muddy	Clear	cloudy	muddy	muddy	Purge Dry Return to sample		Muddy
Temperature (C)	18.1	17.8	17.6	17.6			17.6
Conductivity (micromhos)	173	163	162	191			191
pH	5.32	5.49	5.69	6.02			6.02
Dissolved Oxygen (mg/L & %)	3.07	3.49	3.70	2.83			2.83
Comments:							
				32.87			
				Drawdown (ft) 2.48			

MISCELLANEOUS DATA

Condition of Traffic Box: Good

Drum Identification labeling: NA

Water Level Indicator: Solinist

Weather Conditions: Sunny

Comments: Well Recovery Calculation
 Static Depth to Water in feet + (0.2) (maximum Drawdown in feet) = Depth to Water at 80% Recovery
 30.39 + 0.2 * 2.48 = 30.88

Sampled at: 1235

well located in vacant lot opposite house at end of street

Rincon Consultants, Inc.

GROUND WATER SAMPLING/PURGING DATA SHEET

Job No:	Date: 1/10/14
Project/Location: Los Osos GW Monitoring	Well Number: 18N1r
Observation Period Start: 12:00 Stop: 1259	Survey Reference Point:
Sampled By: TD	Witnessed By:

PURGING DATA

Type of Pump	Hand purge	Pump Inlet Depth (ft)	74
Well Diameter (in)	2	Depth of Well (ft)	92.68
Initial/Static Depth to Water (ft)	76.84	Length of Water Column (ft)	92.68 15.84
Product Thickness (ft)	1	Volume Multiplier (gal/ft)	15.84 0.16
One Casing Volume (gal)	2.53	Three Casing Volumes (gal)	0.16 7.60
Purge Time, Start	12:06	Purge Time, Stop	12:31
Total Purge Time (minutes)	25	Purge Rate (gpm)	0.76
Purge Volume (gal)	9	Depth to Water (ft) at Sampling	

CASING OR BOREHOLE VOLUME

0.5-inch Diameter = 0.010 gal/ft 0.75-inch Diameter = 0.023 gal/ft 1-inch Diameter = 0.041 gal/ft 1.5-inch Diameter = 0.092 gal/ft 2-inch Diameter = 0.16 gal/ft	4-inch Diameter = 0.65 gal/ft 6-inch Diameter = 1.46 gal/ft 9-inch Diameter = 3.30 gal/ft 12-inch Diameter = 5.87 gal/ft 15-inch Diameter = 9.18 gal/ft
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INDICATOR DATA

Volume Pumped (gal)	Before Purge						At Sampling
TDS (ppm)	253	273	274	275			278
Turbidity (measured or visual) cloudy, clear, muddy	clear	muddy	muddy	cloudy	Purge Dry - Return to Sample		cloudy
Temperature (C)	18.8	18.1	18.0	18.0			18.2
Conductivity (micromhos)	505	546	550	550			5.55
pH	6.61	6.60	6.53	6.63			6.61
Dissolved Oxygen (mg/L & %)	1.65	1.68	1.19	0.90			1.54
Comments:	16.5%	18.4%	12.5%	9.7%			9.7%
Depth to Water at End of Purge (ft)							
Drawdown (ft)							

MISCELLANEOUS DATA

Condition of Traffic Box: Good
Drum Identification labeling: NA
Water Level Indicator: Solinst
Weather Conditions: cloudy

Comments: Well Recovery Calculation
 Static Depth to Water in feet + (0.2) (maximum Drawdown in feet) = Depth to Water at 80% Recovery

Sampled at: 1250

_____ + 0.2 * _____ = _____

Rincon Consultants, Inc.

GROUND WATER SAMPLING/PURGING DATA SHEET

Job No:		Date: 1/10/14			
Project/Location: Los Osos 6W Monitoring		Well Number: 1824R			
Observation Period Start: 10:46 AM Stop: 1540		Survey Reference Point:			
Sampled By:		Witnessed By:			
PURGING DATA					
Type of Pump	6mufos	Pump Inlet Depth (ft)	19		
Well Diameter (in)	2	Depth of Well (ft)	33.73		
Initial/Static Depth to Water (ft)	22.54 22.54	Length of Water Column (ft)	11.11		
Product Thickness (ft)	0.1	Volume Multiplier (gal/ft)	0.16		
One Casing Volume (gal)	1.78	Three Casing Volumes (gal)	5.3		
Purge Time, Start	13:28	Purge Time, Stop	13:30		
Total Purge Time (minutes)	4	Purge Rate (gpm)	1.35		
Purge Volume (gal)	5.7	Depth to Water (ft) at Sampling	22.53		
CASING OR BOREHOLE VOLUME					
0.5-inch Diameter = 0.010 gal/ft 0.75-inch Diameter = 0.023 gal/ft 1-inch Diameter = 0.041 gal/ft 1.5-inch Diameter = 0.092 gal/ft 2-inch Diameter = 0.16 gal/ft		4-inch Diameter = 0.65 gal/ft 6-inch Diameter = 1.46 gal/ft 8-inch Diameter = 3.30 gal/ft 12-inch Diameter = 5.87 gal/ft 15-inch Diameter = 9.18 gal/ft			
INDICATOR DATA					
Volume Pumped (gal)	Before Purge	1.75	3.5	5.3	At Sampling
TDS (ppm)	476	371	374	372	372
Turbidity (measured or visual) cloudy, clear, muddy	sl cloudy	sl cloudy	sl cloudy	sl cloudy	sl cloudy
Temperature (C)	19.0	18.9	18.9	18.8	18.8
Conductivity (micromhos)	956	743	748	742	742
pH	6.06	6.30	6.28	6.31	6.31
Dissolved Oxygen (mg/L & %)	5.18	3.50	3.65	3.92	3.92
Comments:					
Depth to Water at End of Purge (ft)				22.5	
Drawdown (ft)				0.12	
MISCELLANEOUS DATA					
Condition of Traffic Box: Good					
Drum Identification labeling: NA					
Water Level Indicator: Spinist					
Weather Conditions: cloudy					
Comments:				Sampled at: 33 1535	
Well Recovery Calculation Static Depth to Water in feet + (0.2) (maximum Drawdown in feet) = Depth to Water at 80% Recovery 22.62 + 0.2 * 0.12 = 22.64					

located in front of 2056 Ferrell Ave on driveway in front of chain link gate (on EAST side of street) (photo facing east)

Rincon Consultants, Inc.

GROUND WATER SAMPLING/PURGING DATA SHEET

Job No:	Date: 1/8/14
Project/Location: Los Osos Gw Monitoring	Well Number: 7Q1
Observation Period Start: 1400 Stop: 1545	Survey Reference Point:
Sampled By:	Witnessed By:

PURGING DATA

Type of Pump: Gruntos	Pump Inlet Depth (ft): 40
Well Diameter (in): 6"	Depth of Well (ft): 67.39
Initial/Static Depth to Water (ft): 8.90	Length of Water Column (ft): 58.79
Product Thickness (ft): NA	Volume Multiplier (gal/ft): 1.46
One Casing Volume (gal): 85.8	Three Casing Volumes (gal): 257.5
Purge Time, Start: 1400	Purge Time, Stop: 1451
Total Purge Time (minutes): 1400 51	Purge Rate (gpm): 5 gpm
Purge Volume (gal): 257.5	Depth to Water (ft) at Sampling: 20.00

CASING OR BOREHOLE VOLUME

0.5-inch Diameter = 0.010 gal/ft	4-inch Diameter = 0.65 gal/ft
0.75-inch Diameter = 0.023 gal/ft	6-inch Diameter = 1.46 gal/ft
1-inch Diameter = 0.041 gal/ft	9-inch Diameter = 3.30 gal/ft
1.5-inch Diameter = 0.092 gal/ft	12-inch Diameter = 5.87 gal/ft
2-inch Diameter = 0.16 gal/ft	15-inch Diameter = 9.18 gal/ft

INDICATOR DATA

Volume Pumped (gal)	Before Purge							At Sampling
TDS (ppm)	368	384	384	405	408	406		406
Turbidity (measured or visual) cloudy, clear, muddy	cloudy	cloudy	cloudy	clear	clear	clear		clear
Temperature (C)	17.9	18.4	18.6	18.1	18.1	17.9		17.9
Conductivity (micromhos)	714	737	737	779	787	782		782
pH	7.00	6.70	6.50	6.48	6.43	6.39		6.39
Dissolved Oxygen (mg/L & %)	0.63 6.7%	0.66 7.1%	0.49 5.1	0.47 5.0%	0.50 5.5%	0.52 5.5%		0.52/5.5%
Comments:								
Depth to Water at End of Purge (ft)								
Drawdown (ft)								

MISCELLANEOUS DATA

Condition of Traffic Box: Good

Drum Identification labeling: NA

Water Level Indicator: Solinst

Weather Conditions: Cloudy

Comments: Well Recovery Calculation
 Static Depth to Water in feet + (0.2) (maximum Drawdown in feet) = Depth to Water at 80% Recovery

Sampled at: 1519

_____ + 0.2 * _____ = 20.36

Located in the truck yard belong²⁵ing to Los Osos CSD Water District on SE corner Elmore and 8th

Rincon Consultants, Inc.

GROUND WATER SAMPLING/PURGING DATA SHEET

Job No:	Date: 1/8/14
Project/Location: Los Osos GW Monitoring	Well Number: 7K3
Observation Period Start: 1130 Stop: 1220	Survey Reference Point:
Sampled By: KS	Witnessed By:

PURGING DATA

Type of Pump: Grunfos	Pump Inlet Depth (ft): 50
Well Diameter (in): 2"	Depth of Well (ft): 61.45
Initial/Static Depth to Water (ft): 53.64	Length of Water Column (ft): 7.81
Product Thickness (ft): 0	Volume Multiplier (gal/ft): 0.16
One Casing Volume (gal): 1.25	Three Casing Volumes (gal): 3.75
Purge Time, Start: 1130	Purge Time, Stop: 1215
Total Purge Time (minutes): 45	Purge Rate (gpm): 0.083
Purge Volume (gal): 3.75	Depth to Water (ft) at Sampling:

CASING OR BOREHOLE VOLUME

0.5-inch Diameter = 0.010 gal/ft	4-inch Diameter = 0.65 gal/ft
0.75-inch Diameter = 0.023 gal/ft	6-inch Diameter = 1.46 gal/ft
1-inch Diameter = 0.041 gal/ft	9-inch Diameter = 3.30 gal/ft
1.5-inch Diameter = 0.092 gal/ft	12-inch Diameter = 5.87 gal/ft
2-inch Diameter = 0.16 gal/ft	15-inch Diameter = 9.18 gal/ft

INDICATOR DATA

Volume Pumped (gal)	Before Purge							At Sampling
TDS (ppm)	416	418	418	420				420
Turbidity (measured or visual) cloudy, clear, muddy	clear	clear	clear	clear				clear
Temperature (C)	24.1	21.3	20.6	20.0				20.0
Conductivity (micromhos)	797	801	812	807				807
pH	6.31	6.25	6.16	6.15				6.15
Dissolved Oxygen (mg/L & %)	1.21 13.1%	1.45 15.7%	1.5 15.0%	1.5 15.0%				1.5 15.0%
Comments:								
Depth to Water at End of Purge (ft)								
Drawdown (ft)								

MISCELLANEOUS DATA

Condition of Traffic Box: Good

Drum Identification labeling: NA

Water Level Indicator: Solinst

Weather Conditions: Sunny

Comments: Well Recovery Calculation
 Static Depth to Water in feet + (0.2) (maximum Drawdown in feet) = Depth to Water at 80% Recovery

Sampled at: 1215

_____ + 0.2 * _____ = _____

Well is 5 feet north of driveway at 1201 ~~mon~~ 12th Street. On the SW corner of 12th St + Santa Isabel.

Rincon Consultants, Inc.

GROUND WATER SAMPLING/PURGING DATA SHEET

Job No:	Date: 1/9/14
Project/Location: Los Osos GW Monitoring	Well Number: 18R1
Observation Period Start: 1100 Stop: 1155	Survey Reference Point:
Sampled By: KS	Witnessed By:

PURGING DATA

Type of Pump: Dedicated - Domestic	Pump Inlet Depth (ft):
Well Diameter (in): 8"	Depth of Well (ft): 50'
Initial/Static Depth to Water (ft): ? Historic = 115.8	Length of Water Column (ft): 37.52
Product Thickness (ft): 0	Volume Multiplier (gal/ft):
One Casing Volume (gal):	Three Casing Volumes (gal):
Purge Time, Start: 1110	Purge Time, Stop: 1150
Total Purge Time (minutes): 40	Purge Rate (gpm): 3.05 gpm @ 19 gpd
Purge Volume (gal): 120	Depth to Water (ft) at Sampling:

CASING OR BOREHOLE VOLUME

0.5-inch Diameter = 0.010 gal/ft	4-inch Diameter = 0.65 gal/ft
0.75-inch Diameter = 0.023 gal/ft	6-inch Diameter = 1.46 gal/ft
1-inch Diameter = 0.041 gal/ft	9-inch Diameter = 3.30 gal/ft
1.5-inch Diameter = 0.092 gal/ft	12-inch Diameter = 5.87 gal/ft
2-inch Diameter = 0.16 gal/ft	15-inch Diameter = 9.18 gal/ft

INDICATOR DATA

Volume Pumped (gal)	Before Purge						At Sampling
TDS (ppm)	250	245	237	237	235	/	236
Turbidity (measured or visual) cloudy, clear, muddy	clear	clear	clear	clear	clear		clear
Temperature (C)	61.2	59.9	47.0 60.3	60.3	60.2		60.4
Conductivity (microhos)	508	498	470 4.70	470	4.70		480
pH	5.94	6.37	6.31	6.27	6.10		6.29
Dissolved Oxygen (mg/L & %)	0.56 4.8%	0.53 5.3%	0.51 5.2%	0.54 5.3%	0.53 5.2%		0.53 5.2%
Comments:							
Depth to Water at End of Purge (ft)							
Drawdown (ft)							

MISCELLANEOUS DATA

Condition of Traffic Box: Good

Drum Identification labeling: NA

Water Level Indicator: Solinst

Weather Conditions: cloudy

Comments: Well Recovery Calculation
 Static Depth to Water in feet + (0.2) (maximum Drawdown in feet) = Depth to Water at 80% Recovery

Sampled at: 1150

_____ + 0.2 * _____ = _____

Well spigot is outside the storage area at Oceanside International Real Estate. Driveway has an arch way and pavers, lined by oak trees. Across from Ralphs. ~~the~~ Solinst ~~and~~ Rat droppings in the shed. could not access well

Rincon Consultants, Inc.
GROUND WATER SAMPLING/PURGING DATA SHEET

Job No: <u>88</u>	Date: <u>1/10/14</u>
Project/Location: <u>Los Osos bw Monitoring</u>	Well Number: <u>18C1r</u>
Observation Period Start: <u>830</u> Stop: <u>855</u>	Survey Reference Point:
Sampled By: <u>TD</u>	Witnessed By:

PURGING DATA

Type of Pump: <u>Gruntos</u>	Pump Inlet Depth (ft): <u>18</u>
Well Diameter (in): <u>2</u>	Depth of Well (ft): <u>31.65</u>
Initial/Static Depth to Water (ft): <u>21.31</u>	Length of Water Column (ft): <u>10.34</u>
Product Thickness (ft): <u>NA</u>	Volume Multiplier (gal/ft): <u>0.16</u>
One Casing Volume (gal): <u>1.65</u>	Three Casing Volumes (gal): <u>4.96</u>
Purge Time, Start: <u>830</u>	Purge Time, Stop: <u>852</u>
Total Purge Time (minutes): <u>22</u>	Purge Rate (gpm): <u>0.23</u>
Purge Volume (gal): <u>4.96</u>	Depth to Water (ft) at Sampling: <u>21.49</u>

CASING OR BOREHOLE VOLUME

0.5-inch Diameter = 0.010 gal/ft	4-inch Diameter = 0.65 gal/ft
0.75-inch Diameter = 0.023 gal/ft	6-inch Diameter = 1.46 gal/ft
1-inch Diameter = 0.041 gal/ft	9-inch Diameter = 3.30 gal/ft
1.5-inch Diameter = 0.092 gal/ft	12-inch Diameter = 5.87 gal/ft
2-inch Diameter = 0.16 gal/ft	15-inch Diameter = 9.18 gal/ft

INDICATOR DATA

Volume Pumped (gal)	Before Purge						At Sampling
TDS (ppm)	<u>291</u>	<u>350</u>	<u>353</u>	<u>362</u>	<u>362</u>		<u>362</u>
Turbidity (measured or visual) cloudy, clear, muddy	<u>clear</u>	<u>clear</u>	<u>clear</u>	<u>clear</u>	<u>clear</u>		
Temperature (C)	<u>12.3</u>	<u>16.3</u>	<u>16.1</u>	<u>17.3</u>	<u>17.0</u>		
Conductivity (micro mhos)	<u>584</u>	<u>707</u>	<u>701</u>	<u>624</u>	<u>572</u>		
pH	<u>5.81</u>	<u>5.78</u>	<u>5.98</u>	<u>6.14</u>	<u>6.10</u>		
Dissolved Oxygen (mg/L & %)	<u>5.4%</u>	<u>5.1%</u>	<u>5.0%</u>	<u>5.7%</u>	<u>6.3%</u>		
Comments:	<u>0.57</u>	<u>0.50</u>	<u>0.50</u>	<u>0.55</u>	<u>0.62</u>		
Depth to Water at End of Purge (ft)				<u>20.35</u>			
Drawdown (ft)				<u>1.04</u>			

MISCELLANEOUS DATA

Condition of Traffic Box: good

Drum Identification labeling: NA

Water Level Indicator: Solinist

Weather Conditions: cloudy

Comments: Well Recovery Calculation
 Static Depth to Water in feet + (0.2) (maximum Drawdown in feet) = Depth to Water at 80% Recovery

21.31 + 0.2 * 1.04 = 21.51

Sampled at: 852

location on East side of street, vacant lot south of 1582 6th St

Appendix B

Analytical Laboratory Reports



CALSCIENCE

WORK ORDER NUMBER: 14-01-0565

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Rincon Consultants

Client Project Name: Los Osos - Groundwater Sampling

Attention: Torin Snyder
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

[Signature]
for

Approved for release on 01/22/2014 by:
Ranjit Clarke
Project Manager

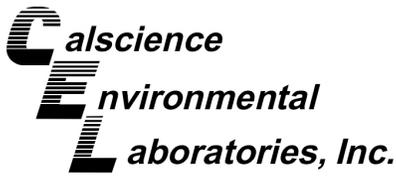
ResultLink ▶

Email your PM ▶



Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.





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Client Project Name: Los Osos - Groundwater Sampling
Work Order Number: 14-01-0565

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Work Order Narrative

Work Order: 14-01-0565

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Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 01/11/14. They were assigned to Work Order 14-01-0565.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

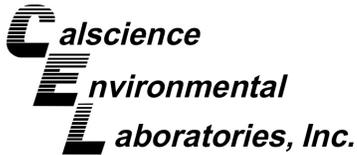
Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.



Analytical Report

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/11/14
Work Order: 14-01-0565
Preparation: N/A
Method: EPA 200.7
Units: mg/L

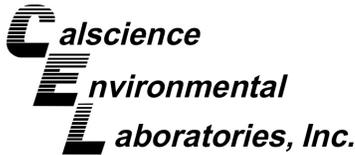
Project: Los Osos - Groundwater Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
18C1r	14-01-0565-1-C	01/10/14 08:53	Aqueous	ICP 7300	01/13/14	01/13/14 19:50	140113LA3
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Sodium		91.6		0.500		1	
Boron		0.161		0.0200		1	
18E1	14-01-0565-2-C	01/10/14 11:30	Aqueous	ICP 7300	01/13/14	01/13/14 19:52	140113LA3
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Sodium		48.6		0.500		1	
Boron		0.0749		0.0200		1	
18N1r	14-01-0565-3-C	01/10/14 12:50	Aqueous	ICP 7300	01/13/14	01/13/14 19:54	140113LA3
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Sodium		62.7		0.500		1	
Boron		0.151		0.0200		1	
13H	14-01-0565-4-C	01/10/14 12:35	Aqueous	ICP 7300	01/13/14	01/13/14 19:55	140113LA3
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Sodium		17.4		0.500		1	
Boron		0.0489		0.0200		1	
Method Blank	097-01-012-5631	N/A	Aqueous	ICP 7300	01/13/14	01/13/14 19:43	140113LA3
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Sodium		ND		0.500		1	
Boron		ND		0.0200		1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received:
Work Order:

01/11/14
14-01-0565

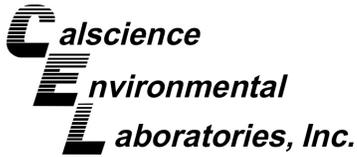
Project: Los Osos - Groundwater Sampling

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Client Sample Number	Lab Sample Number				Date/Time Collected		Matrix	
18C1r	14-01-0565-1				01/10/14 08:53		Aqueous	
Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Sulfate	49	1.0	1		mg/L	N/A	01/11/14	EPA 300.0
Chloride	150	2.0	2		mg/L	N/A	01/11/14	EPA 300.0
Solids, Total Dissolved	545	1.00	1		mg/L	01/17/14	01/17/14	SM 2540 C
pH	6.27	0.01	1	BV,BU	pH units	N/A	01/11/14	SM 4500 H+ B
Total Kjeldahl Nitrogen	ND	0.50	1		mg/L	01/20/14	01/20/14	SM 4500 N Org B
Nitrate-Nitrite (as N)	16	2.5	25		mg/L	01/17/14	01/17/14	SM 4500-NO3 E
Total Nitrogen	16	0.50	1		mg/L	N/A	01/21/14	Total Nitrogen by Calc
18E1	14-01-0565-2				01/10/14 11:30		Aqueous	
Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Chloride	63	1.0	1		mg/L	N/A	01/11/14	EPA 300.0
Sulfate	21	1.0	1		mg/L	N/A	01/11/14	EPA 300.0
Solids, Total Dissolved	270	1.00	1		mg/L	01/17/14	01/17/14	SM 2540 C
pH	6.37	0.01	1	BV,BU	pH units	N/A	01/11/14	SM 4500 H+ B
Total Kjeldahl Nitrogen	7.6	0.50	1		mg/L	01/20/14	01/20/14	SM 4500 N Org B
Nitrate-Nitrite (as N)	8.5	2.5	25		mg/L	01/17/14	01/17/14	SM 4500-NO3 E
Total Nitrogen	16	0.50	1		mg/L	N/A	01/21/14	Total Nitrogen by Calc
18N1r	14-01-0565-3				01/10/14 12:50		Aqueous	
Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Sulfate	42	1.0	1		mg/L	N/A	01/11/14	EPA 300.0
Chloride	96	2.0	2		mg/L	N/A	01/11/14	EPA 300.0
Solids, Total Dissolved	475	1.00	1		mg/L	01/17/14	01/17/14	SM 2540 C
pH	6.31	0.01	1	BV,BU	pH units	N/A	01/11/14	SM 4500 H+ B
Total Kjeldahl Nitrogen	0.98	0.50	1		mg/L	01/20/14	01/20/14	SM 4500 N Org B
Nitrate-Nitrite (as N)	25	5.0	50		mg/L	01/17/14	01/17/14	SM 4500-NO3 E
Total Nitrogen	26	0.50	1		mg/L	N/A	01/21/14	Total Nitrogen by Calc

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received:
Work Order:

01/11/14
14-01-0565

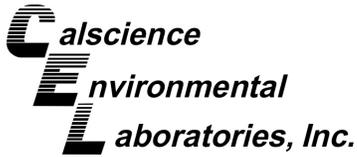
Project: Los Osos - Groundwater Sampling

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Client Sample Number	Lab Sample Number				Date/Time Collected		Matrix	
13H	14-01-0565-4				01/10/14 12:35		Aqueous	
<u>Parameter</u>	<u>Results</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>	<u>Units</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Method</u>
Chloride	12	1.0	1		mg/L	N/A	01/11/14	EPA 300.0
Sulfate	11	1.0	1		mg/L	N/A	01/11/14	EPA 300.0
Solids, Total Dissolved	140	1.00	1		mg/L	01/17/14	01/17/14	SM 2540 C
pH	6.52	0.01	1	BV,BU	pH units	N/A	01/11/14	SM 4500 H+ B
Total Kjeldahl Nitrogen	0.56	0.50	1		mg/L	01/20/14	01/20/14	SM 4500 N Org B
Nitrate-Nitrite (as N)	3.9	1.0	10		mg/L	01/17/14	01/17/14	SM 4500-NO3 E
Total Nitrogen	4.4	0.50	1		mg/L	N/A	01/21/14	Total Nitrogen by Calc
Method Blank						N/A	Aqueous	
<u>Parameter</u>	<u>Results</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>	<u>Units</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Method</u>
Chloride	ND	1.0	1		mg/L	N/A	01/11/14	EPA 300.0
Sulfate	ND	1.0	1		mg/L	N/A	01/11/14	EPA 300.0
Solids, Total Dissolved	ND	1.0	1		mg/L	01/17/14	01/17/14	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1		mg/L	01/20/14	01/20/14	SM 4500 N Org B
Nitrate-Nitrite (as N)	ND	0.10	1		mg/L	01/17/14	01/17/14	SM 4500-NO3 E

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - Spike/Spike Duplicate

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/11/14
Work Order: 14-01-0565
Preparation: N/A
Method: EPA 300.0

Project: Los Osos - Groundwater Sampling

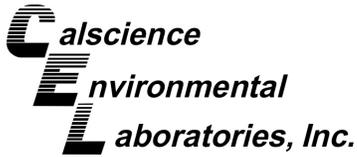
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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
18C1r	Sample	Aqueous	IC 10	N/A	01/11/14 13:37	140111S01
18C1r	Matrix Spike	Aqueous	IC 10	N/A	01/11/14 13:04	140111S01
18C1r	Matrix Spike Duplicate	Aqueous	IC 10	N/A	01/11/14 13:20	140111S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	151.7	5000	5289	103	5277	102	80-120	0	0-20	
Sulfate	48.57	5000	5129	102	5089	101	80-120	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

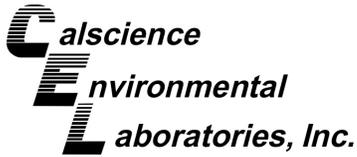
Date Received: 01/11/14
Work Order: 14-01-0565
Preparation: N/A
Method: SM 4500-NO3 E

Project: Los Osos - Groundwater Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-01-0397-1	Sample	Aqueous	UV 8	01/17/14	01/17/14 11:30	E0117NO3S1
14-01-0397-1	Matrix Spike	Aqueous	UV 8	01/17/14	01/17/14 11:30	E0117NO3S1
14-01-0397-1	Matrix Spike Duplicate	Aqueous	UV 8	01/17/14	01/17/14 11:30	E0117NO3S1

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	ND	0.5000	0.4860	97	0.4900	98	70-130	1	0-25	



Quality Control - Spike/Spike Duplicate

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/11/14
Work Order: 14-01-0565
Preparation: Filtered
Method: EPA 200.7

Project: Los Osos - Groundwater Sampling

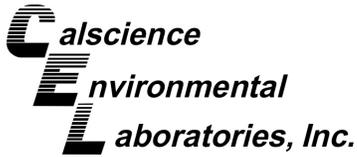
Page 3 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-01-0581-1	Sample	Aqueous	ICP 7300	01/13/14	01/13/14 19:46	140113SA3
14-01-0581-1	Matrix Spike	Aqueous	ICP 7300	01/13/14	01/13/14 19:48	140113SA3
14-01-0581-1	Matrix Spike Duplicate	Aqueous	ICP 7300	01/13/14	01/13/14 19:49	140113SA3

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Sodium	93.59	5.000	94.62	4X	99.53	4X	80-120	4X	0-20	Q
Boron	0.2471	0.5000	0.7813	107	0.8066	112	80-120	3	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Sample Duplicate

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

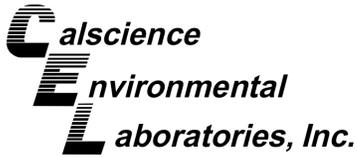
Date Received: 01/11/14
Work Order: 14-01-0565
Preparation: N/A
Method: SM 2540 C

Project: Los Osos - Groundwater Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
18C1r	Sample	Aqueous	SC 5	01/17/14 00:00	01/17/14 14:50	E0117TDSD2
18C1r	Sample Duplicate	Aqueous	SC 5	01/17/14 00:00	01/17/14 14:50	E0117TDSD2

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	545.0	565.0	4	0-20	



Quality Control - Sample Duplicate

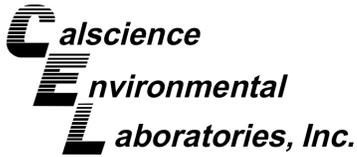
Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/11/14
Work Order: 14-01-0565
Preparation: N/A
Method: SM 4500 H+ B

Project: Los Osos - Groundwater Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
18C1r	Sample	Aqueous	PH 1	N/A	01/11/14 12:47	E0111PHD1
18C1r	Sample Duplicate	Aqueous	PH 1	N/A	01/11/14 12:47	E0111PHD1
<u>Parameter</u>		<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
pH		6.270	6.290	0	0-25	



Quality Control - Sample Duplicate

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Carlsbad, CA 92008-9999

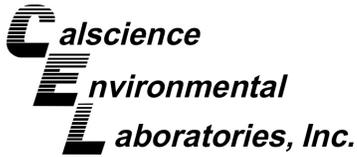
Date Received: 01/11/14
Work Order: 14-01-0565
Preparation: N/A
Method: SM 4500 N Org B

Project: Los Osos - Groundwater Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
14-01-0685-5	Sample	Aqueous	BUR05	01/20/14 00:00	01/20/14 16:49	E0120TKND1
14-01-0685-5	Sample Duplicate	Aqueous	BUR05	01/20/14 00:00	01/20/14 16:49	E0120TKND1

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Total Kjeldahl Nitrogen	56.70	56.98	0	0-25	



Quality Control - LCS

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/11/14
Work Order: 14-01-0565
Preparation: N/A
Method: EPA 300.0

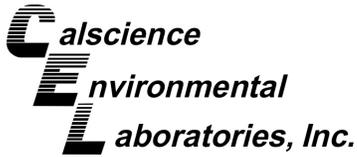
Project: Los Osos - Groundwater Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-906-4323	LCS	Aqueous	IC 10	N/A	01/11/14 11:42	140111L01
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chloride		50.00	50.64	101	90-110	
Sulfate		50.00	50.11	100	90-110	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS/LCSD

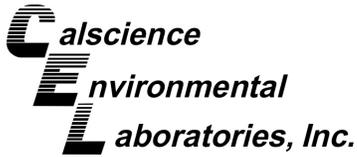
Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/11/14
Work Order: 14-01-0565
Preparation: N/A
Method: SM 2540 C

Project: Los Osos - Groundwater Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-12-180-3942	LCS	Aqueous	SC 5	01/17/14	01/17/14 14:50	E0117TDSL1			
099-12-180-3942	LCSD	Aqueous	SC 5	01/17/14	01/17/14 14:50	E0117TDSL1			
Parameter	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>LCSD Conc.</u>	<u>LCSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Solids, Total Dissolved	100.0	95.00	95	90.00	90	80-120	5	0-20	



Quality Control - LCS/LCSD

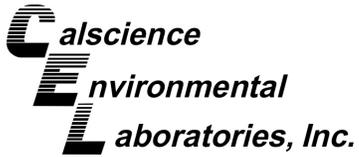
Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/11/14
Work Order: 14-01-0565
Preparation: N/A
Method: SM 4500-NO3 E

Project: Los Osos - Groundwater Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-14-282-234	LCS	Aqueous	UV 8	01/17/14	01/17/14 11:30	E0117NO3L1			
099-14-282-234	LCSD	Aqueous	UV 8	01/17/14	01/17/14 11:30	E0117NO3L1			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.5000	0.5040	101	0.5080	102	80-120	1	0-20	



Quality Control - LCS

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/11/14
Work Order: 14-01-0565
Preparation: N/A
Method: EPA 200.7

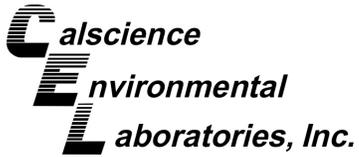
Project: Los Osos - Groundwater Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-012-5631	LCS	Aqueous	ICP 7300	01/13/14	01/13/14 19:45	140113LA3
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Sodium		5.000	5.301	106	85-115	
Boron		0.5000	0.4889	98	85-115	


Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Sample Analysis Summary Report

Work Order: 14-01-0565

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 200.7	N/A	598	ICP 7300	1
EPA 300.0	N/A	811	IC 10	1
SM 2540 C	N/A	722	SC 5	1
SM 4500 H+ B	N/A	688	PH 1	1
SM 4500 N Org B	N/A	685	BUR05	1
SM 4500-NO3 E	N/A	848	UV 8	1
Total Nitrogen by Calc	N/A	92	N/A	1


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Glossary of Terms and Qualifiers

Work Order: 14-01-0565

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSO or PES/PESO associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

WO # / LAB USE ONLY
14-01-0565

LABORATORY CLIENT: Rincon Consultants
ADDRESS: 5135 Avenida Encinas
CITY: Carlsbad STATE: CA ZIP: 92008
TEL: 925 457 4126 E-MAIL: KSteffen@rinconconsultants.com

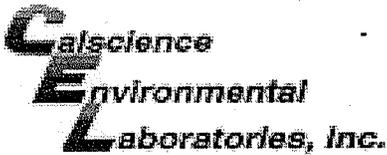
CLIENT PROJECT NAME / NUMBER: Los Osos GWMonitoring P.O. NO.:
PROJECT CONTACT: Torin Snyder
Kelly Steffen SAMPLER(S): (PRINT)
Kelly Steffen
Tim Delaney

TURNAROUND TIME:
 SAME DAY 24 HR 48 HR 72 HR 5 DAYS 10 DAYS
 COELT EDF GLOBAL ID: LOG CODE:

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH(g) or GRO	TPH(d) or DRO or (C6-C36) or (C6-C44)	TPH ()	BTEX / MTBE (8260) or ()	VOCs (8260)	Oxygenates (8260)	En Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	pH	Sodium Chloride sulfate 150ppm	TDS	TON (all forms)
		DATE	TIME																						
	18C1r	1/10/14	0853	water	4	X	X															X	X	X	X
	18E1	1/10/14	1130	water	4	X	X															X	X	X	X
	18N1r	1/10/14	1250	water	4	X	X															X	X	X	X
	13H	1/10/14	1235	water	4	X	X															X	X	X	X

Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature/Affiliation) <u>[Signature]</u>	Date: <u>1/10/14</u>	Time: <u>1340</u>
Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature/Affiliation) <u>[Signature]</u>	Date: <u>1/11/14</u>	Time: <u>0930</u>
Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature/Affiliation)	Date:	Time:



WORK ORDER #: 14-01-0565

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Rincon

DATE: 01/11/14

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 3.3 °C - 0.3 °C (CF) = 3.0 °C Blank Sample

Sample(s) outside temperature criteria (PM/APM contacted by: _____).

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: Air Filter

Checked by: 802

CUSTODY SEALS INTACT:

Cooler _____ No (Not Intact) Not Present N/A Checked by: 802

Sample _____ No (Not Intact) Not Present Checked by: 854

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> No analysis requested. <input type="checkbox"/> Not relinquished. <input type="checkbox"/> No date/time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples received within 15-minute holding time			
<input checked="" type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfides <input type="checkbox"/> Dissolved Oxygen.....	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve (____) EnCores® TerraCores® _____

Aqueous: VOA VOAh VOAna₂ 125AGB 125AGBh 125AGBp 1AGB 1AGBna₂ 1AGBs

500AGB 500AGJ 500AGJs 250AGB 250CGB 250CGBs 1PB 1PBna 500PB

250PB 250PBn 125PB 125PBzanna 100PJ 100PJna₂ _____ _____ _____

Air: Tedlar® Canister Other: _____ Trip Blank Lot#: _____ Labeled/Checked by: 854

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: 802

Preservative: h: HCL n: HNO₃ na₂:Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure zna: ZnAc₂+NaOH f: Filtered Scanned by: 802

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CALSCIENCE

WORK ORDER NUMBER: 14-01-0484

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Rincon Consultants

Client Project Name: Los Osos - Groundwater Sampling

Attention: Torin Snyder
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

[Signature]
for

Approved for release on 01/21/2014 by:
Ranjit Clarke
Project Manager

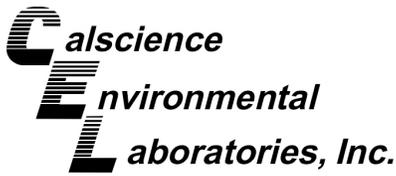


ResultLink ▶

Email your PM ▶

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.





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Client Project Name: Los Osos - Groundwater Sampling
Work Order Number: 14-01-0484

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Work Order Narrative

Work Order: 14-01-0484

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Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 01/10/14. They were assigned to Work Order 14-01-0484.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

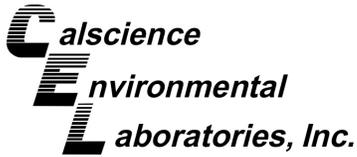
Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.



Analytical Report

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/10/14
Work Order: 14-01-0484
Preparation: N/A
Method: EPA 200.7
Units: mg/L

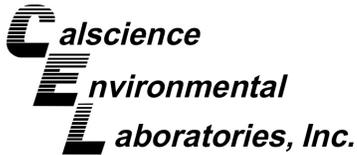
Project: Los Osos - Groundwater Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
7N1	14-01-0484-1-C	01/09/14 09:25	Aqueous	ICP 7300	01/10/14	01/11/14 12:41	140110LA3
<u>Parameter</u>		<u>Result</u>			<u>DF</u>		<u>Qualifiers</u>
Sodium		24.3			1		
Boron		0.0325			1		
17D	14-01-0484-2-C	01/09/14 10:05	Aqueous	ICP 7300	01/10/14	01/11/14 12:45	140110LA3
<u>Parameter</u>		<u>Result</u>			<u>DF</u>		<u>Qualifiers</u>
Sodium		64.2			1		
Boron		0.0893			1		
18A	14-01-0484-3-C	01/09/14 10:45	Aqueous	ICP 7300	01/10/14	01/11/14 12:47	140110LA3
<u>Parameter</u>		<u>Result</u>			<u>DF</u>		<u>Qualifiers</u>
Sodium		50.4			1		
Boron		0.122			1		
18R1	14-01-0484-4-C	01/09/14 11:50	Aqueous	ICP 7300	01/10/14	01/11/14 12:49	140110LA3
<u>Parameter</u>		<u>Result</u>			<u>DF</u>		<u>Qualifiers</u>
Sodium		58.5			1		
Boron		0.162			1		
17E9	14-01-0484-5-C	01/09/14 11:32	Aqueous	ICP 7300	01/10/14	01/11/14 12:51	140110LA3
<u>Parameter</u>		<u>Result</u>			<u>DF</u>		<u>Qualifiers</u>
Sodium		45.6			1		
Boron		0.0581			1		
13Q1r	14-01-0484-6-C	01/09/14 13:30	Aqueous	ICP 7300	01/10/14	01/11/14 12:53	140110LA3
<u>Parameter</u>		<u>Result</u>			<u>DF</u>		<u>Qualifiers</u>
Sodium		128			1		
Boron		0.132			1		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/10/14
Work Order: 14-01-0484
Preparation: N/A
Method: EPA 200.7
Units: mg/L

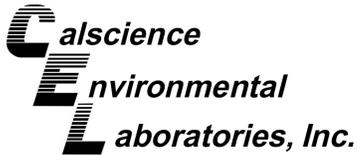
Project: Los Osos - Groundwater Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
24A	14-01-0484-7-C	01/09/14 16:00	Aqueous	ICP 7300	01/10/14	01/13/14 20:26	140110LA3
<u>Parameter</u>		<u>Result</u>			<u>DF</u>		<u>Qualifiers</u>
Sodium		54.1		0.500	1		
Boron		ND		0.0200	1		
13G	14-01-0484-8-C	01/09/14 14:10	Aqueous	ICP 7300	01/10/14	01/13/14 20:28	140110LA3
<u>Parameter</u>		<u>Result</u>			<u>DF</u>		<u>Qualifiers</u>
Sodium		72.0		0.500	1		
Boron		0.0529		0.0200	1		
13L5r	14-01-0484-9-C	01/09/14 15:10	Aqueous	ICP 7300	01/10/14	01/13/14 20:35	140110LA3
<u>Parameter</u>		<u>Result</u>			<u>DF</u>		<u>Qualifiers</u>
Sodium		113		0.500	1		
Boron		0.118		0.0200	1		
Method Blank	097-01-012-5630	N/A	Aqueous	ICP 7300	01/10/14	01/11/14 12:37	140110LA3
<u>Parameter</u>		<u>Result</u>			<u>DF</u>		<u>Qualifiers</u>
Sodium		ND		0.500	1		
Boron		ND		0.0200	1		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

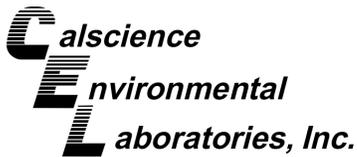
Date Received: 01/10/14
Work Order: 14-01-0484

Project: Los Osos - Groundwater Sampling

Page 1 of 3

Client Sample Number	Lab Sample Number				Date/Time Collected		Matrix	
7N1	14-01-0484-1				01/09/14 09:25		Aqueous	
Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Chloride	32	1.0	1		mg/L	N/A	01/11/14	EPA 300.0
Sulfate	8.6	1.0	1		mg/L	N/A	01/11/14	EPA 300.0
Solids, Total Dissolved	200	1.00	1		mg/L	01/16/14	01/16/14	SM 2540 C
pH	6.90	0.01	1	BV,BU	pH units	N/A	01/10/14	SM 4500 H+ B
Total Kjeldahl Nitrogen	0.56	0.50	1		mg/L	01/17/14	01/17/14	SM 4500 N Org B
Nitrate-Nitrite (as N)	5.4	1.0	10		mg/L	01/17/14	01/17/14	SM 4500-NO3 E
Total Nitrogen	6.0	0.50	1		mg/L	N/A	01/21/14	Total Nitrogen by Calc
17D	14-01-0484-2				01/09/14 10:05		Aqueous	
Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Sulfate	31	1.0	1		mg/L	N/A	01/11/14	EPA 300.0
Chloride	100	2.0	2		mg/L	N/A	01/11/14	EPA 300.0
Solids, Total Dissolved	405	1.00	1		mg/L	01/16/14	01/16/14	SM 2540 C
pH	6.69	0.01	1	BV,BU	pH units	N/A	01/10/14	SM 4500 H+ B
Total Kjeldahl Nitrogen	ND	0.50	1		mg/L	01/17/14	01/17/14	SM 4500 N Org B
Nitrate-Nitrite (as N)	20	5.0	50		mg/L	01/17/14	01/17/14	SM 4500-NO3 E
Total Nitrogen	20	0.50	1		mg/L	N/A	01/21/14	Total Nitrogen by Calc
18A	14-01-0484-3				01/09/14 10:45		Aqueous	
Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Chloride	94	1.0	1		mg/L	N/A	01/11/14	EPA 300.0
Sulfate	34	1.0	1		mg/L	N/A	01/11/14	EPA 300.0
Solids, Total Dissolved	400	1.00	1		mg/L	01/16/14	01/16/14	SM 2540 C
pH	6.35	0.01	1	BV,BU	pH units	N/A	01/10/14	SM 4500 H+ B
Total Kjeldahl Nitrogen	0.56	0.50	1		mg/L	01/17/14	01/17/14	SM 4500 N Org B
Nitrate-Nitrite (as N)	7.1	1.0	10		mg/L	01/17/14	01/17/14	SM 4500-NO3 E
Total Nitrogen	7.6	0.50	1		mg/L	N/A	01/21/14	Total Nitrogen by Calc

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/10/14

Work Order: 14-01-0484

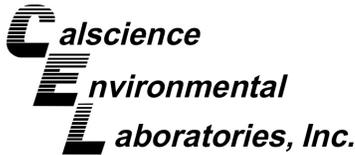
Project: Los Osos - Groundwater Sampling

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Client Sample Number	Lab Sample Number				Date/Time Collected		Matrix	
18R1	14-01-0484-4				01/09/14 11:50		Aqueous	
Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Chloride	87	1.0	1		mg/L	N/A	01/11/14	EPA 300.0
Sulfate	23	1.0	1		mg/L	N/A	01/11/14	EPA 300.0
Solids, Total Dissolved	365	1.00	1		mg/L	01/16/14	01/16/14	SM 2540 C
pH	6.04	0.01	1	BV,BU	pH units	N/A	01/10/14	SM 4500 H+ B
Total Kjeldahl Nitrogen	ND	0.50	1		mg/L	01/17/14	01/17/14	SM 4500 N Org B
Nitrate-Nitrite (as N)	18	2.5	25		mg/L	01/17/14	01/17/14	SM 4500-NO3 E
Total Nitrogen	18	0.50	1		mg/L	N/A	01/21/14	Total Nitrogen by Calc
17E9	14-01-0484-5				01/09/14 11:32		Aqueous	
Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Chloride	63	1.0	1		mg/L	N/A	01/11/14	EPA 300.0
Sulfate	24	1.0	1		mg/L	N/A	01/11/14	EPA 300.0
Solids, Total Dissolved	375	1.00	1		mg/L	01/16/14	01/16/14	SM 2540 C
pH	10.49	0.01	1	BV,BU	pH units	N/A	01/10/14	SM 4500 H+ B
Total Kjeldahl Nitrogen	4.9	0.50	1		mg/L	01/17/14	01/17/14	SM 4500 N Org B
Nitrate-Nitrite (as N)	13	2.5	25		mg/L	01/17/14	01/17/14	SM 4500-NO3 E
Total Nitrogen	18	0.50	1		mg/L	N/A	01/21/14	Total Nitrogen by Calc
13Q1r	14-01-0484-6				01/09/14 13:30		Aqueous	
Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Sulfate	64	1.0	1		mg/L	N/A	01/11/14	EPA 300.0
Chloride	160	5.0	5		mg/L	N/A	01/11/14	EPA 300.0
Solids, Total Dissolved	795	1.00	1		mg/L	01/16/14	01/16/14	SM 2540 C
pH	7.06	0.01	1	BV,BU	pH units	N/A	01/10/14	SM 4500 H+ B
Total Kjeldahl Nitrogen	2.2	0.50	1		mg/L	01/17/14	01/17/14	SM 4500 N Org B
Nitrate-Nitrite (as N)	22	5.0	50		mg/L	01/17/14	01/17/14	SM 4500-NO3 E
Total Nitrogen	24	0.50	1		mg/L	N/A	01/21/14	Total Nitrogen by Calc

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received:
Work Order:

01/10/14
14-01-0484

Project: Los Osos - Groundwater Sampling

Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
24A	14-01-0484-7	01/09/14 16:00	Aqueous

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Sulfate	7.1	1.0	1		mg/L	N/A	01/11/14	EPA 300.0
Chloride	120	2.0	2		mg/L	N/A	01/11/14	EPA 300.0
Solids, Total Dissolved	410	1.00	1		mg/L	01/16/14	01/16/14	SM 2540 C
pH	6.63	0.01	1	BV,BU	pH units	N/A	01/10/14	SM 4500 H+ B
Total Kjeldahl Nitrogen	1.5	0.50	1		mg/L	01/17/14	01/17/14	SM 4500 N Org B
Nitrate-Nitrite (as N)	14	2.5	25		mg/L	01/17/14	01/17/14	SM 4500-NO3 E
Total Nitrogen	15	0.50	1		mg/L	N/A	01/21/14	Total Nitrogen by Calc

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
13G	14-01-0484-8	01/09/14 14:10	Aqueous

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Sulfate	17	1.0	1		mg/L	N/A	01/11/14	EPA 300.0
Chloride	130	2.0	2		mg/L	N/A	01/11/14	EPA 300.0
Solids, Total Dissolved	440	1.00	1		mg/L	01/16/14	01/16/14	SM 2540 C
pH	6.27	0.01	1	BV,BU	pH units	N/A	01/10/14	SM 4500 H+ B
Total Kjeldahl Nitrogen	ND	0.50	1		mg/L	01/17/14	01/17/14	SM 4500 N Org B
Nitrate-Nitrite (as N)	12	2.5	25		mg/L	01/17/14	01/17/14	SM 4500-NO3 E
Total Nitrogen	12	0.50	1		mg/L	N/A	01/21/14	Total Nitrogen by Calc

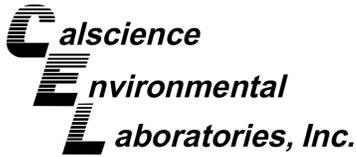
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
13L5r	14-01-0484-9	01/09/14 15:10	Aqueous

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Chloride	96	1.0	1		mg/L	N/A	01/11/14	EPA 300.0
Sulfate	28	1.0	1		mg/L	N/A	01/11/14	EPA 300.0
Solids, Total Dissolved	435	1.00	1		mg/L	01/16/14	01/16/14	SM 2540 C
pH	6.30	0.01	1	BV,BU	pH units	N/A	01/10/14	SM 4500 H+ B
Total Kjeldahl Nitrogen	ND	0.50	1		mg/L	01/17/14	01/17/14	SM 4500 N Org B
Nitrate-Nitrite (as N)	10	2.5	25		mg/L	01/17/14	01/17/14	SM 4500-NO3 E
Total Nitrogen	10	0.50	1		mg/L	N/A	01/21/14	Total Nitrogen by Calc

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
Method Blank	N/A	N/A	Aqueous

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Chloride	ND	1.0	1		mg/L	N/A	01/10/14	EPA 300.0
Sulfate	ND	1.0	1		mg/L	N/A	01/10/14	EPA 300.0
Chloride	ND	1.0	1		mg/L	N/A	01/11/14	EPA 300.0
Solids, Total Dissolved	ND	1.0	1		mg/L	01/16/14	01/16/14	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1		mg/L	01/17/14	01/17/14	SM 4500 N Org B
Nitrate-Nitrite (as N)	ND	0.10	1		mg/L	01/17/14	01/17/14	SM 4500-NO3 E

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - Spike/Spike Duplicate

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/10/14
Work Order: 14-01-0484
Preparation: N/A
Method: EPA 300.0

Project: Los Osos - Groundwater Sampling

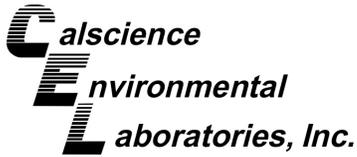
Page 1 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-01-0561-2	Sample	Aqueous	IC 7	N/A	01/10/14 20:54	140110S02
14-01-0561-2	Matrix Spike	Aqueous	IC 7	N/A	01/10/14 23:38	140110S02
14-01-0561-2	Matrix Spike Duplicate	Aqueous	IC 7	N/A	01/10/14 23:55	140110S02

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	612.2	5000	5690	102	5690	102	80-120	0	0-20	
Sulfate	128.5	5000	5166	101	5164	101	80-120	0	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/10/14
Work Order: 14-01-0484
Preparation: N/A
Method: SM 4500-NO3 E

Project: Los Osos - Groundwater Sampling

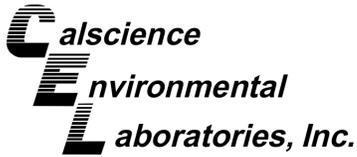
Page 2 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-01-0397-1	Sample	Aqueous	UV 8	01/17/14	01/17/14 11:30	E0117NO3S1
14-01-0397-1	Matrix Spike	Aqueous	UV 8	01/17/14	01/17/14 11:30	E0117NO3S1
14-01-0397-1	Matrix Spike Duplicate	Aqueous	UV 8	01/17/14	01/17/14 11:30	E0117NO3S1

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	ND	0.5000	0.4860	97	0.4900	98	70-130	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/10/14
Work Order: 14-01-0484
Preparation: N/A
Method: EPA 200.7

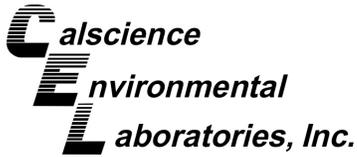
Project: Los Osos - Groundwater Sampling

Page 3 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
7N1	Sample	Aqueous	ICP 7300	01/10/14	01/11/14 12:41	140110SA3				
7N1	Matrix Spike	Aqueous	ICP 7300	01/10/14	01/11/14 12:42	140110SA3				
7N1	Matrix Spike Duplicate	Aqueous	ICP 7300	01/10/14	01/11/14 12:44	140110SA3				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Sodium	24.30	5.000	29.30	4X	29.83	4X	80-120	4X	0-20	Q
Boron	0.03255	0.5000	0.5584	105	0.5668	107	80-120	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Sample Duplicate

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

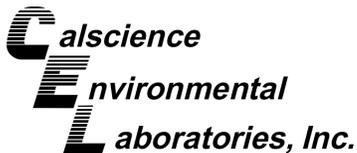
Date Received: 01/10/14
Work Order: 14-01-0484
Preparation: N/A
Method: SM 2540 C

Project: Los Osos - Groundwater Sampling

Page 1 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
7N1	Sample	Aqueous	N/A	01/16/14 00:00	01/16/14 14:40	E0116TDSD1
7N1	Sample Duplicate	Aqueous	SC 5	01/16/14 00:00	01/16/14 14:40	E0116TDSD1

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	200.0	195.0	3	0-20	



Quality Control - Sample Duplicate

Rincon Consultants
 5135 Avenida Encinas, Suite A
 Carlsbad, CA 92008-9999

Date Received: 01/10/14
 Work Order: 14-01-0484
 Preparation: N/A
 Method: SM 4500 H+ B

Project: Los Osos - Groundwater Sampling

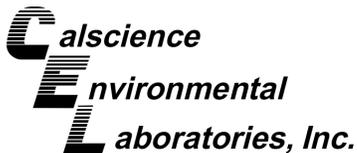
Page 2 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
14-01-0473-1	Sample	Aqueous	PH 1	N/A	01/10/14 16:38	E0110PHD1
14-01-0473-1	Sample Duplicate	Aqueous	PH 1	N/A	01/10/14 16:38	E0110PHD1

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
pH	7.600	7.640	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Sample Duplicate

Rincon Consultants
 5135 Avenida Encinas, Suite A
 Carlsbad, CA 92008-9999

Date Received: 01/10/14
 Work Order: 14-01-0484
 Preparation: N/A
 Method: SM 4500 N Org B

Project: Los Osos - Groundwater Sampling

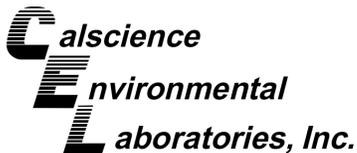
Page 3 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
14-01-0473-2	Sample	Aqueous	BUR05	01/17/14 00:00	01/17/14 15:20	E0117TKND1
14-01-0473-2	Sample Duplicate	Aqueous	BUR05	01/17/14 00:00	01/17/14 15:20	E0117TKND1

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Total Kjeldahl Nitrogen	9.100	8.820	3	0-25	



RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS

Rincon Consultants
 5135 Avenida Encinas, Suite A
 Carlsbad, CA 92008-9999

Date Received: 01/10/14
 Work Order: 14-01-0484
 Preparation: N/A
 Method: EPA 300.0

Project: Los Osos - Groundwater Sampling

Page 1 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-906-4324	LCS	Aqueous	IC 7	N/A	01/10/14 20:38	140110L02

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chloride	50.00	50.05	100	90-110	
Sulfate	50.00	49.60	99	90-110	



RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS/LCSD

Rincon Consultants
 5135 Avenida Encinas, Suite A
 Carlsbad, CA 92008-9999

Date Received: 01/10/14
 Work Order: 14-01-0484
 Preparation: N/A
 Method: EPA 300.0

Project: Los Osos - Groundwater Sampling

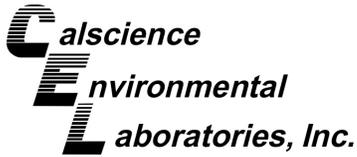
Page 2 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-906-4325	LCS	Aqueous	IC 7	N/A	01/11/14 13:54	140111L02
099-12-906-4325	LCSD	Aqueous	IC 7	N/A	01/11/14 14:11	140111L02

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	50.00	50.00	100	50.02	100	90-110	0	0-15	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS/LCSD

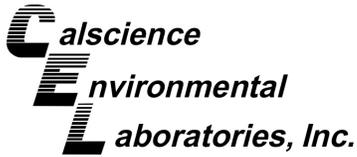
Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/10/14
Work Order: 14-01-0484
Preparation: N/A
Method: SM 2540 C

Project: Los Osos - Groundwater Sampling

Page 3 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-12-180-3939	LCS	Aqueous	SC 5	01/16/14	01/16/14 14:40	E0116TDSL1			
099-12-180-3939	LCSD	Aqueous	SC 5	01/16/14	01/16/14 14:40	E0116TDSL1			
Parameter	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>LCSD Conc.</u>	<u>LCSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Solids, Total Dissolved	100.0	95.00	95	105.0	105	80-120	10	0-20	



Quality Control - LCS/LCSD

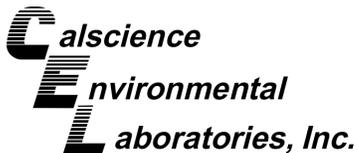
Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/10/14
Work Order: 14-01-0484
Preparation: N/A
Method: SM 4500-NO3 E

Project: Los Osos - Groundwater Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-14-282-234	LCS	Aqueous	UV 8	01/17/14	01/17/14 11:30	E0117NO3L1			
099-14-282-234	LCSD	Aqueous	UV 8	01/17/14	01/17/14 11:30	E0117NO3L1			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.5000	0.5040	101	0.5080	102	80-120	1	0-20	



Quality Control - LCS

Rincon Consultants
 5135 Avenida Encinas, Suite A
 Carlsbad, CA 92008-9999

Date Received: 01/10/14
 Work Order: 14-01-0484
 Preparation: N/A
 Method: EPA 200.7

Project: Los Osos - Groundwater Sampling

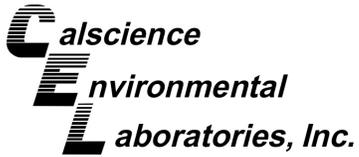
Page 5 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-012-5630	LCS	Aqueous	ICP 7300	01/10/14	01/11/14 12:39	140110LA3

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Sodium	5.000	4.923	98	85-115	
Boron	0.5000	0.4672	93	85-115	



RPD: Relative Percent Difference. CL: Control Limits



Sample Analysis Summary Report

Work Order: 14-01-0484

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 200.7	N/A	469	ICP 7300	1
EPA 200.7	N/A	598	ICP 7300	1
EPA 300.0	N/A	650	IC 7	1
SM 2540 C	N/A	722	N/A	1
SM 4500 H+ B	N/A	688	PH 1	1
SM 4500 N Org B	N/A	685	BUR05	1
SM 4500-NO3 E	N/A	848	UV 8	1
Total Nitrogen by Calc	N/A	92	N/A	1


Return to Contents

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 14-01-0484

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

DATE: 1/9/14
PAGE: 1 OF 1

WO # / LAB USE ONLY
14-01-0484

LABORATORY CLIENT: <u>Rincon Consultants</u>		CLIENT PROJECT NAME / NUMBER: <u>Los Osos Groundwater Monitoring</u>		P.O. NO.:
ADDRESS: <u>5135 Avenida Encinas</u>		PROJECT CONTACT: <u>Torin Snyder / Kelly Steffen</u>		SAMPLER(S): (PRINT) <u>Kelly Steffen</u> <u>Tom Delany</u>
CITY: <u>Carlsbad</u>	STATE: <u>CA</u>	ZIP: <u>92008</u>		
TEL: <u>925 457 4126</u>	E-MAIL: <u>Ksteffen@Rinconconsultants.com</u>			

REQUESTED ANALYSES

TURNAROUND TIME: <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> 10 DAYS																										
<input type="checkbox"/> COELT EDF		GLOBAL ID:		LOG CODE:																						
SPECIAL INSTRUCTIONS:																										
LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH(g) or GRO	TPH(d) or DRO or (C6-C36) or (C6-C44)	TPH ()	BTEX / MTBE (8260) or ()	VOCs (8260)	Oxygenates (8260)	En Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PNAAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7199 or 7199 or 218.6]	pH	Sulfate, Chloride, Boron	TDS	TON (all forms)	
		DATE	TIME																							
1	7N1 7N1	1/9/14	0925	Water	4	X	X																X	X	X	X
2	17D	1/9/14	1005	water	4	X	X																X	X	X	X
3	18A	1/9/14	1045	water	4	X	X																X	X	X	X
4	18R1	1/9/14	1150	water	4	X	X																X	X	X	X
5	17E9	1/9/14	1132	Water	4	X	X																X	X	X	X
6	13Q1r	1/9/14	1330	water	4	X	X																X	X	X	X
7	24A	1/9/14	1600	water	4	X	X																X	X	X	X

Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature/Affiliation) <u>[Signature]</u>	Date: <u>1/9/14</u>	Time: <u>16:45</u>
Relinquished by: (Signature) <u>[Signature]</u> 1/9/14 17:30	Received by: (Signature/Affiliation) <u>[Signature]</u>	Date:	Time:
Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature/Affiliation) <u>[Signature]</u>	Date: <u>1/10/14</u>	Time: <u>0900</u>

SAMPLE RECEIPT FORM

Cooler 1 of 2

CLIENT: Rincon

DATE: 01/10/14

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 3.4 °C - 0.3 °C (CF) = 3.1 °C Blank Sample

Sample(s) outside temperature criteria (PM/APM contacted by: _____).

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: Air Filter Checked by: 15

CUSTODY SEALS INTACT:

Cooler _____ No (Not Intact) Not Present N/A Checked by: 15

Sample _____ No (Not Intact) Not Present Checked by: 876

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels. <input type="checkbox"/> No analysis requested. <input type="checkbox"/> Not relinquished. <input type="checkbox"/> No date/time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples received within 15-minute holding time			
<input checked="" type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfides <input type="checkbox"/> Dissolved Oxygen.....	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve (____) EnCores® TerraCores® _____

Aqueous: VOA VOAh VOAna₂ 125AGB 125AGBh 125AGBp 1AGB 1AGBna₂ 1AGBs

500AGB 500AGJ 500AGJs 250AGB 250CGB 250CGBs 1PB 1PBna 500PB

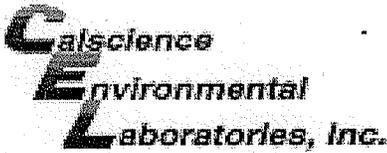
250PB 250PBn 125PB 125PBzanna 100PJ 100PJna₂ _____ _____ _____

Air: Tedlar® Canister **Other:** _____ **Trip Blank Lot#:** _____ **Labeled/Checked by:** 876

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** 659

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂+NaOH f: Filtered **Scanned by:** 659

Return to Contents



WORK ORDER #: 14-01-0484

SAMPLE RECEIPT FORM

Cooler 2 of 2

CLIENT: Rincon

DATE: 01/10/14

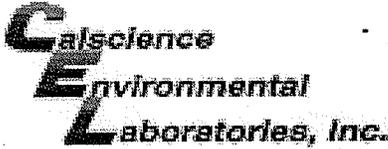
TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C - 6.0 °C, not frozen except sediment/tissue)
Temperature 2.8 °C - 0.3 °C (CF) = 2.45 °C
Sample(s) outside temperature criteria (PM/APM contacted by: 1/10)
Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.
Received at ambient temperature, placed on ice for transport by Courier.
Ambient Temperature: Air Filter Checked by: 15

CUSTODY SEALS INTACT:
Cooler No (Not Intact) Not Present N/A Checked by: 15
Sample No (Not Intact) Not Present Checked by: 836

Table with columns: SAMPLE CONDITION, Yes, No, N/A. Rows include Chain-Of-Custody (COC) document(s) received with samples, COC document(s) received complete, Sampler's name indicated on COC, Sample container label(s) consistent with COC, etc.

CONTAINER TYPE:
Solid: 4ozCGJ, 8ozCGJ, 16ozCGJ, Sleeve, EnCores, TerraCores
Aqueous: VOA, VOA h, VOAna2, 125AGB, 125AGBh, 125AGBp, 1AGB, 1AGBna2, 1AGBs, 500AGB, 500AGJ, 500AGJs, 250AGB, 250CGB, 250CGBs, 1PB, 1PBna, 500PB, 250PB, 250PBn, 125PB, 125PBzanna, 100PJ, 100PJna2
Air: Tedlar, Canister Other: Trip Blank Lot#: Labeled/Checked by: 836
Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: 659
Preservative: h: HCL n: HNO3 na2: Na2S2O3 na: NaOH p: H3PO4 s: H2SO4 u: Ultra-pure zanna: ZnAc2+NaOH f: Filtered Scanned by: 659

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WORK ORDER #: 14-01-0484

SAMPLE ANOMALY FORM

SAMPLES - CONTAINERS & LABELS:

- Sample(s) NOT RECEIVED but listed on COC
- Sample(s) received but NOT LISTED on COC
- Holding time expired – list sample ID(s) and test
- Insufficient quantities for analysis – list test
- Improper container(s) used – list test
- Improper preservative used – list test
- No preservative noted on COC or label – list test & notify lab
- Sample labels illegible – note test/container type
- Sample label(s) do not match COC – Note in comments
 - Sample ID
 - Date and/or Time Collected
 - Project Information
 - # of Container(s)
 - Analysis
- Sample container(s) compromised – Note in comments
 - Water present in sample container
 - Broken
- Sample container(s) not labeled
- Air sample container(s) compromised – Note in comments
 - Flat
 - Very low in volume
 - Leaking (Not transferred - duplicate bag submitted)
 - Leaking (transferred into Calscience Tedlar® Bag*)
 - Leaking (transferred into Client's Tedlar® Bag*)
- Other: _____

Comments:

Received (1) 1 liter plastic container (unpreserved), (1) 125 ml plastic container (unpreserved), (1) 250 ml plastic container (HNO₃) & (1) 250 ml clear glass container (H₂SO₄) not on COC, labeled as:
 (-8) 13 G, 1/9/14 @ 1410
 (-9) 13 L5 R, 1/9/14 @ 1510

Collection time per label:
 (-1) 0825
 (-4) 1152
 (-3) 1130

HEADSPACE – Containers with Bubble > 6mm or 1/4 inch:

Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Cont. received	Analysis

Comments: _____

*Transferred at Client's request.

Initial / Date: 836 01/10/14

al science
Environmental
laboratories, Inc.

7440 LINCOLN WAY
 GARDEN GROVE, CA 92841-1427
 TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD
 DATE: 1/9/14
 PAGE: 1 OF 1

WORK/LAB USE ONLY
14-01-0484

LABORATORY CLIENT: Rincon Consultants
 ADDRESS: 5135 Avenida Encinas
 CITY: Carlsbad STATE: CA ZIP: 92008

CLIENT PROJECT NAME / NUMBER: Los Osos Groundwater Monitoring
 PROJECT CONTACT: Torin Snyder / Kelly Steffen
 P.O. NO.:
 SAMPLER(S) (PRINT): Kelly Steffen
 T.M. Delaney

TEL: 925 457 4126 E-MAIL: Ksteffen@Rinconconsultants.com

TURNAROUND TIME:
 SAME DAY 24 HR 48 HR 72 HR 10 DAYS

COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	LOG CODE		TPH(g) or GRO	TPH(d) or DRO or (C6-C36) or (C6-C44)	TPH ()	BTEX / MTBE (8260) or ()	VOCs (8260)	Oxygenates (8260)	En Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) (7196 or 7199 or 218.6)	PH	Sulfides, Chloride, Sulfate, Boron	TDS	TON (all forms)	
		DATE	TIME			Unpreserved	Field Filled																		
1	18R1 7N1	1/9/14	0925	Water	4	X	X															X	X	X	
2	17D	1/9/14	1005	Water	4	X	X															X	X	X	
3	18A	1/9/14	1045	Water	4	X	X															X	X	X	
4	18R1	1/9/14	1150	Water	4	X	X															X	X	X	
5	17E9	1/9/14	1132	Water	4	X	X															X	X	X	
6	13Q1r	1/9/14	1330	Water	4	X	X															X	X	X	
7	24A	1/9/14	1600	Water	4	X	X															X	X	X	
	13G	1/9/14	1410	Water	4	X	X															X	X	X	
	13L5r	1/9/14	1510	Water	4	X	X															X	X	X	

Relinquished by: (Signature) *[Signature]* Received by: (Signature/Affiliation) *[Signature]* Date: 1/9/14 Time: 10:45

Relinquished by: (Signature) *[Signature]* Received by: (Signature/Affiliation) *[Signature]* Date: 1/9/14 Time:

Relinquished by: (Signature) *[Signature]* Received by: (Signature/Affiliation) *[Signature]* Date: 1/10/14 Time: 0900



Supplemental Report 1

Additional requested analyses have been added to the original report.



CALSCIENCE

WORK ORDER NUMBER: 14-01-0373

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Rincon Consultants

Client Project Name: Los Osos - Groundwater Sampling

Attention: Torin Snyder
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

[Signature]
for

Approved for release on 02/06/2014 by:
Ranjit Clarke
Project Manager

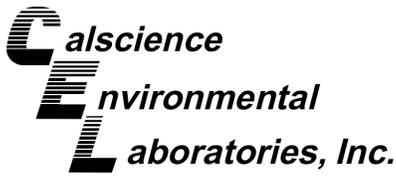
ResultLink ▶

Email your PM ▶



Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.





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Work Order Number: 14-01-0373

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Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 01/09/14. They were assigned to Work Order 14-01-0373.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

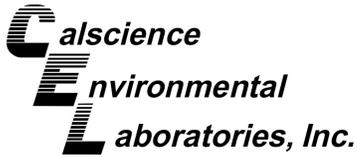
Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.



Analytical Report

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/09/14
Work Order: 14-01-0373
Preparation: N/A
Method: EPA 200.7
Units: mg/L

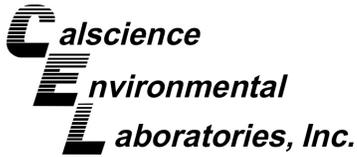
Project: Los Osos - Groundwater Sampling

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
17N4	14-01-0373-1-B	01/08/14 09:00	Aqueous	ICP 7300	01/09/14	01/10/14 15:44	140109LA3
<u>Parameter</u>		<u>Result</u>			<u>DF</u>		<u>Qualifiers</u>
Sodium		33.0		0.500	1		
Boron		0.0469		0.0200	1		
18B1r	14-01-0373-2-B	01/08/14 10:20	Aqueous	ICP 7300	01/09/14	01/10/14 15:46	140109LA3
<u>Parameter</u>		<u>Result</u>			<u>DF</u>		<u>Qualifiers</u>
Sodium		80.2		0.500	1		
Boron		0.183		0.0200	1		
7R1r	14-01-0373-3-B	01/08/14 11:15	Aqueous	ICP 7300	01/09/14	01/10/14 15:48	140109LA3
<u>Parameter</u>		<u>Result</u>			<u>DF</u>		<u>Qualifiers</u>
Sodium		73.1		0.500	1		
Boron		0.165		0.0200	1		
7K3r	14-01-0373-4-B	01/08/14 12:15	Aqueous	ICP 7300	01/09/14	01/10/14 15:49	140109LA3
<u>Parameter</u>		<u>Result</u>			<u>DF</u>		<u>Qualifiers</u>
Sodium		96.1		0.500	1		
Boron		0.137		0.0200	1		
7Q1	14-01-0373-5-B	01/08/14 14:51	Aqueous	ICP 7300	01/09/14	01/10/14 15:51	140109LA3
<u>Parameter</u>		<u>Result</u>			<u>DF</u>		<u>Qualifiers</u>
Sodium		111		0.500	1		
Boron		0.266		0.0200	1		
7L3r	14-01-0373-6-B	01/08/14 16:25	Aqueous	ICP 7300	01/09/14	01/10/14 15:53	140109LA3
<u>Parameter</u>		<u>Result</u>			<u>DF</u>		<u>Qualifiers</u>
Sodium		82.6		0.500	1		
Boron		0.269		0.0200	1		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/09/14
Work Order: 14-01-0373
Preparation: N/A
Method: EPA 200.7
Units: mg/L

Project: Los Osos - Groundwater Sampling

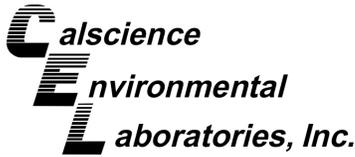
Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-012-5628	N/A	Aqueous	ICP 7300	01/09/14	01/10/14 11:37	140109LA3

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Sodium	ND	0.500	1	
Boron	ND	0.0200	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received:
Work Order:

01/09/14
14-01-0373

Project: Los Osos - Groundwater Sampling

Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
17N4	14-01-0373-1	01/08/14 09:00	Aqueous

Comment(s): (170) - Sample analysis requested after recommended holding time.

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Chloride (170)	46	1.0	1		mg/L	N/A	01/10/14	EPA 300.0
Nitrite (as N) (170)	ND	0.10	1	BU	mg/L	N/A	01/10/14	EPA 300.0
Nitrate (as N) (170)	7.4	0.10	1	BU	mg/L	N/A	01/10/14	EPA 300.0
Sulfate (170)	15	1.0	1		mg/L	N/A	01/10/14	EPA 300.0
Solids, Total Dissolved	225	1.00	1		mg/L	01/14/14	01/14/14	SM 2540 C
pH	5.95	0.01	1	BV,BU	pH units	N/A	01/09/14	SM 4500 H+ B
Total Kjeldahl Nitrogen	0.56	0.50	1		mg/L	01/15/14	01/15/14	SM 4500 N Org B
Nitrogen, Organic	0.56	0.50	1	BU	mg/L	02/05/14	02/05/14	SM 4500-N(org)
Ammonia (as N)	ND	0.10	1		mg/L	02/05/14	02/05/14	SM 4500-NH3 F
Nitrate-Nitrite (as N)	7.3	1.0	10		mg/L	01/09/14	01/09/14	SM 4500-NO3 E
Total Nitrogen	7.9	0.50	1		mg/L	N/A	01/20/14	Total Nitrogen by Calc

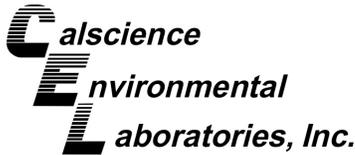
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
18B1r	14-01-0373-2	01/08/14 10:20	Aqueous

Comment(s): (68) - Dilution analysis was performed outside the recommended holding time.

(170) - Sample analysis requested after recommended holding time.

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Nitrite (as N) (170)	ND	0.10	1	BU	mg/L	N/A	01/10/14	EPA 300.0
Sulfate (170)	33	1.0	1		mg/L	N/A	01/10/14	EPA 300.0
Chloride (68)	170	5.0	5		mg/L	N/A	01/11/14	EPA 300.0
Nitrate (as N) (68)	20	0.50	5	BU	mg/L	N/A	01/11/14	EPA 300.0
Solids, Total Dissolved	580	1.00	1		mg/L	01/14/14	01/14/14	SM 2540 C
pH	6.17	0.01	1	BV,BU	pH units	N/A	01/09/14	SM 4500 H+ B
Total Kjeldahl Nitrogen	ND	0.50	1		mg/L	01/15/14	01/15/14	SM 4500 N Org B
Nitrogen, Organic	ND	0.50	1	BU	mg/L	02/05/14	02/05/14	SM 4500-N(org)
Ammonia (as N)	ND	0.10	1		mg/L	02/05/14	02/05/14	SM 4500-NH3 F
Nitrate-Nitrite (as N)	22	5.0	50		mg/L	01/09/14	01/09/14	SM 4500-NO3 E
Total Nitrogen	22	0.50	1		mg/L	N/A	01/20/14	Total Nitrogen by Calc

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/09/14
Work Order: 14-01-0373

Project: Los Osos - Groundwater Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
7R1r	14-01-0373-3	01/08/14 11:15	Aqueous

Comment(s): (68) - Dilution analysis was performed outside the recommended holding time.
(170) - Sample analysis requested after recommended holding time.

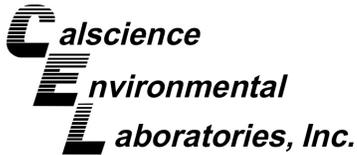
Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Nitrite (as N) (170)	ND	0.10	1	BU	mg/L	N/A	01/10/14	EPA 300.0
Sulfate (170)	45	1.0	1		mg/L	N/A	01/10/14	EPA 300.0
Chloride (68)	160	2.0	2		mg/L	N/A	01/11/14	EPA 300.0
Nitrate (as N) (68)	18	0.20	2	BU	mg/L	N/A	01/11/14	EPA 300.0
Solids, Total Dissolved	530	1.00	1		mg/L	01/14/14	01/14/14	SM 2540 C
pH	6.30	0.01	1	BV,BU	pH units	N/A	01/09/14	SM 4500 H+ B
Total Kjeldahl Nitrogen	1.4	0.50	1		mg/L	01/15/14	01/15/14	SM 4500 N Org B
Nitrogen, Organic	1.4	0.50	1	BU	mg/L	02/05/14	02/05/14	SM 4500-N(org)
Ammonia (as N)	ND	0.10	1		mg/L	02/05/14	02/05/14	SM 4500-NH3 F
Nitrate-Nitrite (as N)	17	2.5	25		mg/L	01/09/14	01/09/14	SM 4500-NO3 E
Total Nitrogen	19	0.50	1		mg/L	N/A	01/20/14	Total Nitrogen by Calc

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
7K3r	14-01-0373-4	01/08/14 12:15	Aqueous

Comment(s): (68) - Dilution analysis was performed outside the recommended holding time.
(170) - Sample analysis requested after recommended holding time.

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Nitrite (as N) (170)	ND	0.10	1	BU	mg/L	N/A	01/10/14	EPA 300.0
Sulfate (170)	42	1.0	1		mg/L	N/A	01/10/14	EPA 300.0
Chloride (68)	160	2.0	2		mg/L	N/A	01/11/14	EPA 300.0
Nitrate (as N) (68)	15	0.20	2	BU	mg/L	N/A	01/11/14	EPA 300.0
Solids, Total Dissolved	560	1.00	1		mg/L	01/14/14	01/14/14	SM 2540 C
pH	6.78	0.01	1	BV,BU	pH units	N/A	01/09/14	SM 4500 H+ B
Total Kjeldahl Nitrogen	ND	0.50	1		mg/L	01/15/14	01/15/14	SM 4500 N Org B
Nitrogen, Organic	ND	0.50	1	BU	mg/L	02/05/14	02/05/14	SM 4500-N(org)
Ammonia (as N)	ND	0.10	1		mg/L	02/05/14	02/05/14	SM 4500-NH3 F
Nitrate-Nitrite (as N)	15	2.5	25		mg/L	01/09/14	01/09/14	SM 4500-NO3 E
Total Nitrogen	15	0.50	1		mg/L	N/A	01/20/14	Total Nitrogen by Calc

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received:
Work Order:

01/09/14
14-01-0373

Project: Los Osos - Groundwater Sampling

Page 3 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
7Q1	14-01-0373-5	01/08/14 14:51	Aqueous

Comment(s): (68) - Dilution analysis was performed outside the recommended holding time.
(170) - Sample analysis requested after recommended holding time.

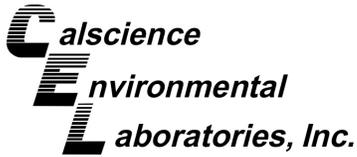
Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Nitrite (as N) (170)	ND	0.10	1	BU	mg/L	N/A	01/10/14	EPA 300.0
Sulfate (170)	42	1.0	1		mg/L	N/A	01/10/14	EPA 300.0
Chloride (68)	160	2.0	2		mg/L	N/A	01/11/14	EPA 300.0
Nitrate (as N) (68)	18	0.20	2	BU	mg/L	N/A	01/11/14	EPA 300.0
Solids, Total Dissolved	525	1.00	1		mg/L	01/14/14	01/14/14	SM 2540 C
pH	6.83	0.01	1	BV,BU	pH units	N/A	01/09/14	SM 4500 H+ B
Total Kjeldahl Nitrogen	0.56	0.50	1		mg/L	01/15/14	01/15/14	SM 4500 N Org B
Nitrogen, Organic	0.56	0.50	1	BU	mg/L	02/05/14	02/05/14	SM 4500-N(org)
Ammonia (as N)	ND	0.10	1		mg/L	02/05/14	02/05/14	SM 4500-NH3 F
Nitrate-Nitrite (as N)	18	2.5	25		mg/L	01/09/14	01/09/14	SM 4500-NO3 E
Total Nitrogen	18	0.50	1		mg/L	N/A	01/20/14	Total Nitrogen by Calc

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
7L3r	14-01-0373-6	01/08/14 16:25	Aqueous

Comment(s): (68) - Dilution analysis was performed outside the recommended holding time.
(170) - Sample analysis requested after recommended holding time.

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Nitrite (as N) (170)	ND	0.10	1	BU	mg/L	N/A	01/10/14	EPA 300.0
Sulfate (170)	41	1.0	1		mg/L	N/A	01/10/14	EPA 300.0
Chloride (68)	150	2.0	2		mg/L	N/A	01/11/14	EPA 300.0
Nitrate (as N) (68)	21	0.50	5	BU	mg/L	N/A	02/05/14	EPA 300.0
Solids, Total Dissolved	520	1.00	1		mg/L	01/14/14	01/14/14	SM 2540 C
pH	6.74	0.01	1	BV,BU	pH units	N/A	01/09/14	SM 4500 H+ B
Total Kjeldahl Nitrogen	0.56	0.50	1		mg/L	01/15/14	01/15/14	SM 4500 N Org B
Nitrogen, Organic	0.56	0.50	1	BU	mg/L	02/05/14	02/05/14	SM 4500-N(org)
Ammonia (as N)	ND	0.10	1		mg/L	02/05/14	02/05/14	SM 4500-NH3 F
Nitrate-Nitrite (as N)	21	5.0	50		mg/L	01/09/14	01/09/14	SM 4500-NO3 E
Total Nitrogen	21	0.50	1		mg/L	N/A	01/20/14	Total Nitrogen by Calc

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received:
Work Order:

01/09/14
14-01-0373

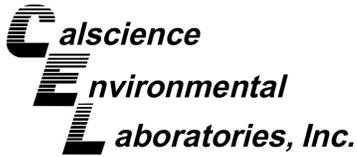
Project: Los Osos - Groundwater Sampling

Page 4 of 4

Client Sample Number	Lab Sample Number				Date/Time Collected	Matrix		
Method Blank				N/A		Aqueous		
Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Chloride	ND	1.0	1		mg/L	N/A	01/10/14	EPA 300.0
Nitrite (as N)	ND	0.10	1		mg/L	N/A	01/10/14	EPA 300.0
Nitrate (as N)	ND	0.10	1		mg/L	N/A	01/10/14	EPA 300.0
Sulfate	ND	1.0	1		mg/L	N/A	01/10/14	EPA 300.0
Chloride	ND	1.0	1		mg/L	N/A	01/11/14	EPA 300.0
Nitrate (as N)	ND	0.10	1		mg/L	N/A	01/11/14	EPA 300.0
Nitrate (as N)	ND	0.10	1		mg/L	N/A	02/04/14	EPA 300.0
Solids, Total Dissolved	ND	1.0	1		mg/L	01/14/14	01/14/14	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1		mg/L	01/15/14	01/15/14	SM 4500 N Org B
Nitrogen, Organic	ND	0.50	1		mg/L	02/05/14	02/05/14	SM 4500-N(org)
Ammonia (as N)	ND	0.10	1		mg/L	02/05/14	02/05/14	SM 4500-NH3 F
Nitrate-Nitrite (as N)	ND	0.10	1		mg/L	01/09/14	01/09/14	SM 4500-NO3 E

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - Spike/Spike Duplicate

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/09/14
Work Order: 14-01-0373
Preparation: N/A
Method: EPA 300.0

Project: Los Osos - Groundwater Sampling

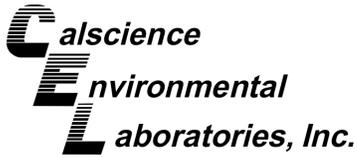
Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-01-0471-5	Sample	Aqueous	IC 7	N/A	01/10/14 17:05	140110S01
14-01-0471-5	Matrix Spike	Aqueous	IC 7	N/A	01/10/14 19:16	140110S01
14-01-0471-5	Matrix Spike Duplicate	Aqueous	IC 7	N/A	01/10/14 19:32	140110S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	7.637	5000	5028	100	5025	100	80-120	0	0-20	
Nitrite (as N)	ND	250.0	253.8	102	258.3	103	80-120	2	0-20	
Nitrate (as N)	ND	500.0	492.3	98	493.2	99	80-120	0	0-20	
Sulfate	ND	5000	4932	99	4937	99	80-120	0	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/09/14
Work Order: 14-01-0373
Preparation: N/A
Method: EPA 300.0

Project: Los Osos - Groundwater Sampling

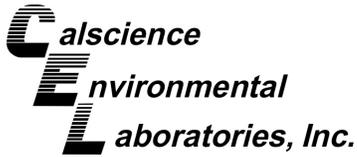
Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-02-0146-1	Sample	Aqueous	IC 10	N/A	02/04/14 20:29	140204S02
14-02-0146-1	Matrix Spike	Aqueous	IC 10	N/A	02/04/14 22:40	140204S02
14-02-0146-1	Matrix Spike Duplicate	Aqueous	IC 10	N/A	02/04/14 22:56	140204S02

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate (as N)	13.00	500.0	507.6	99	504.7	98	80-120	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/09/14
Work Order: 14-01-0373
Preparation: N/A
Method: SM 4500-NO3 E

Project: Los Osos - Groundwater Sampling

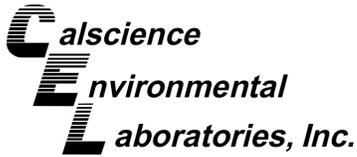
Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
7L3r	Sample	Aqueous	UV 8	01/09/14	01/09/14 15:30	E0109NO3S1
7L3r	Matrix Spike	Aqueous	UV 8	01/09/14	01/09/14 15:30	E0109NO3S1
7L3r	Matrix Spike Duplicate	Aqueous	UV 8	01/09/14	01/09/14 15:30	E0109NO3S1

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	20.77	25.00	46.80	104	46.65	104	70-130	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/09/14
Work Order: 14-01-0373
Preparation: N/A
Method: EPA 200.7

Project: Los Osos - Groundwater Sampling

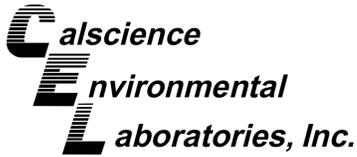
Page 4 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-01-0358-2	Sample	Aqueous	ICP 7300	01/09/14	01/13/14 14:11	140109SA3
14-01-0358-2	Matrix Spike	Aqueous	ICP 7300	01/09/14	01/13/14 14:13	140109SA3
14-01-0358-2	Matrix Spike Duplicate	Aqueous	ICP 7300	01/09/14	01/13/14 14:15	140109SA3

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Sodium	224.5	5.000	234.5	4X	231.1	4X	80-120	4X	0-20	Q
Boron	0.4103	0.5000	0.9595	110	0.9857	115	80-120	3	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Sample Duplicate

Rincon Consultants
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Carlsbad, CA 92008-9999

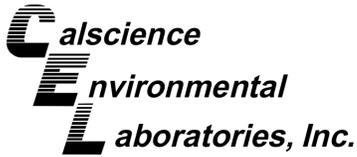
Date Received: 01/09/14
Work Order: 14-01-0373
Preparation: N/A
Method: SM 2540 C

Project: Los Osos - Groundwater Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
14-01-0389-2	Sample	Aqueous	SC 5	01/14/14 00:00	01/14/14 16:10	E0114TDSD1
14-01-0389-2	Sample Duplicate	Aqueous	SC 5	01/14/14 00:00	01/14/14 16:10	E0114TDSD1

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	510.0	495.0	3	0-20	



Quality Control - Sample Duplicate

Rincon Consultants
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Carlsbad, CA 92008-9999

Date Received: 01/09/14
Work Order: 14-01-0373
Preparation: N/A
Method: SM 4500 H+ B

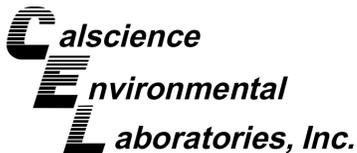
Project: Los Osos - Groundwater Sampling

Page 2 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
14-01-0389-2	Sample	Aqueous	PH 1	N/A	01/09/14 18:50	E0109PHD1
14-01-0389-2	Sample Duplicate	Aqueous	PH 1	N/A	01/09/14 18:50	E0109PHD1
<u>Parameter</u>		<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
pH		7.330	7.370	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Sample Duplicate

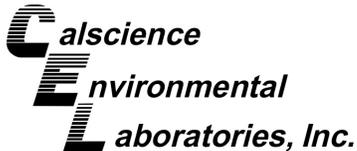
Rincon Consultants 5135 Avenida Encinas, Suite A Carlsbad, CA 92008-9999	Date Received: 01/09/14 Work Order: 14-01-0373 Preparation: N/A Method: SM 4500 N Org B
Project: Los Osos - Groundwater Sampling	Page 3 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
14-01-0397-1	Sample	Aqueous	BUR05	01/15/14 00:00	01/15/14 18:00	E0115TKND1
14-01-0397-1	Sample Duplicate	Aqueous	BUR05	01/15/14 00:00	01/15/14 18:00	E0115TKND1

<u>Parameter</u>	<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Total Kjeldahl Nitrogen	0.9800	0.9800	0	0-25	



RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS

Rincon Consultants
 5135 Avenida Encinas, Suite A
 Carlsbad, CA 92008-9999

Date Received: 01/09/14
 Work Order: 14-01-0373
 Preparation: N/A
 Method: EPA 300.0

Project: Los Osos - Groundwater Sampling

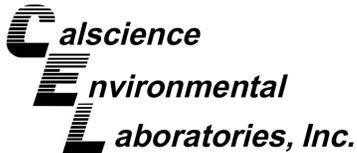
Page 1 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-906-4330	LCS	Aqueous	IC 7	N/A	01/10/14 11:40	140110L01

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chloride	50.00	49.94	100	90-110	
Nitrite (as N)	2.500	2.645	106	90-110	
Nitrate (as N)	5.000	4.899	98	90-110	
Sulfate	50.00	49.44	99	90-110	



RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS/LCSD

Rincon Consultants
 5135 Avenida Encinas, Suite A
 Carlsbad, CA 92008-9999

Date Received: 01/09/14
 Work Order: 14-01-0373
 Preparation: N/A
 Method: EPA 300.0

Project: Los Osos - Groundwater Sampling

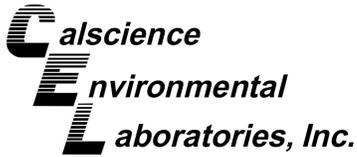
Page 2 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-906-4325	LCS	Aqueous	IC 7	N/A	01/11/14 13:54	140111L02
099-12-906-4325	LCSD	Aqueous	IC 7	N/A	01/11/14 14:11	140111L02

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	50.00	50.00	100	50.02	100	90-110	0	0-15	
Nitrate (as N)	5.000	4.940	99	4.946	99	90-110	0	0-15	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS/LCSD

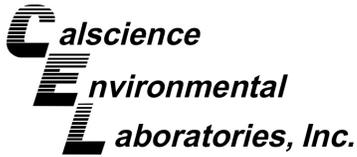
Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/09/14
Work Order: 14-01-0373
Preparation: N/A
Method: EPA 300.0

Project: Los Osos - Groundwater Sampling

Page 3 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-12-906-4381	LCS	Aqueous	IC 10	N/A	02/04/14 16:07	140204L02			
099-12-906-4381	LCSD	Aqueous	IC 10	N/A	02/04/14 16:46	140204L02			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate (as N)	5.000	4.767	95	4.987	100	90-110	5	0-15	



Quality Control - LCS/LCSD

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/09/14
Work Order: 14-01-0373
Preparation: N/A
Method: SM 2540 C

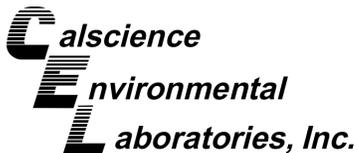
Project: Los Osos - Groundwater Sampling

Page 4 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-12-180-3937	LCS	Aqueous	SC 5	01/14/14	01/14/14 16:10	E0114TDSL1			
099-12-180-3937	LCSD	Aqueous	SC 5	01/14/14	01/14/14 16:10	E0114TDSL1			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	100.0	110.0	110	105.0	105	80-120	5	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS/LCSD

Rincon Consultants
 5135 Avenida Encinas, Suite A
 Carlsbad, CA 92008-9999

Date Received: 01/09/14
 Work Order: 14-01-0373
 Preparation: N/A
 Method: SM 4500-NH3 F

Project: Los Osos - Groundwater Sampling

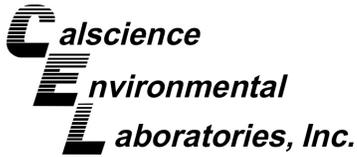
Page 5 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-052-449	LCS	Aqueous	BUR05	02/05/14	02/05/14 17:21	E0205NH3L2
099-12-052-449	LCSD	Aqueous	BUR05	02/05/14	02/05/14 17:21	E0205NH3L2

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Ammonia (as N)	5.000	4.648	93	4.732	95	80-120	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS/LCSD

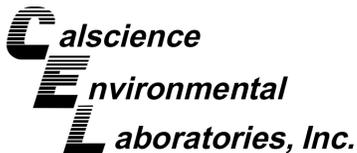
Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/09/14
Work Order: 14-01-0373
Preparation: N/A
Method: SM 4500-NO3 E

Project: Los Osos - Groundwater Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-14-282-233	LCS	Aqueous	UV 8	01/09/14	01/09/14 15:30	E0109NO3L1			
099-14-282-233	LCSD	Aqueous	UV 8	01/09/14	01/09/14 15:30	E0109NO3L1			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.5000	0.5330	107	0.5290	106	80-120	1	0-20	



Quality Control - LCS

Rincon Consultants
 5135 Avenida Encinas, Suite A
 Carlsbad, CA 92008-9999

Date Received: 01/09/14
 Work Order: 14-01-0373
 Preparation: N/A
 Method: EPA 200.7

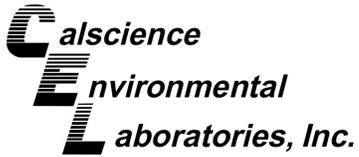
Project: Los Osos - Groundwater Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-012-5628	LCS	Aqueous	ICP 7300	01/09/14	01/10/14 11:39	140109LA3
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Sodium		5.000	5.103	102	85-115	
Boron		0.5000	0.4768	95	85-115	



RPD: Relative Percent Difference. CL: Control Limits



Sample Analysis Summary Report

Work Order: 14-01-0373

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 200.7	N/A	598	ICP 7300	1
EPA 300.0	N/A	811	IC 7	1
EPA 300.0	N/A	811	IC 10	1
SM 2540 C	N/A	722	SC 5	1
SM 4500 H+ B	N/A	688	PH 1	1
SM 4500 N Org B	N/A	685	BUR05	1
SM 4500-N(org)	N/A	685	N/A	1
SM 4500-NH3 F	N/A	685	BUR05	1
SM 4500-NO3 E	N/A	848	UV 8	1
Total Nitrogen by Calc	N/A	92	N/A	1

A blue arrow pointing upwards, with the text "Return to Contents" written vertically to its right.

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 14-01-0373

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDS or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

WO # LAB USE ONLY
14-01-0373

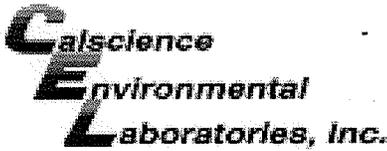
LABORATORY CLIENT: Rincon Consultants
ADDRESS: 5315 Avenida Encinas
CITY: Carlsbad STATE: CA ZIP: 92008
TEL: 925 457 4124 E-MAIL: ksteffen@rinconconsultants.com
PROJECT CONTACT: Torin Snyder
CLIENT PROJECT NAME / NUMBER: Los Osos- Groundwater Sampling
P.O. NO.:
SAMPLER(S) (PRINT): Kelly Steffen

TURNAROUND TIME:
 SAME DAY 24 HR 48 HR 72 HR 5 DAYS 10 DAYS
 COELT EDF GLOBAL ID:
LOG CODE:
SPECIAL INSTRUCTIONS:
48 hour hold

LAB USE ONLY	SAMPLE ID	SAMPLING TIME		MATRIX	NO. OF CONT.	FIELD FILTERED			TPH(g) or GRO	TPH(d) or DRO or (C6-C36) or (C6-C44)	TPH ()	BTEX / MTBE (8260) or ()	VOCs (8260)	En Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	pH	Sodium, Chloride, Sulfide, Boron	TDS	TON (all items)		
		DATE	TIME			Unpreserved	Preserved																			
1	17N4	1/8/14	0900	water	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																		
2	18B1r	1/8/14	1020	water	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																		
3	7R1r	1/8/14	1115	water	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																		
4	7K3r	1/8/14	1215	water	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																		
5	7Q1	1/8/14	1451	water	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																		
6	7L3r	1/8/14	1625	water	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																		

Requested Analyses

Received by: (Signature/Affiliation) *[Signature]* Date: 1/8/14 Time: 0600
 Relinquished by: (Signature) *[Signature]*
 Received by: (Signature/Affiliation) *[Signature]* Date: 1/9/14 Time: 0750
 Relinquished by: (Signature) *[Signature]*
 Received by: (Signature/Affiliation) *[Signature]* Date: Time:



WORK ORDER #: 14-01-0373

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: LINCON CONSULTANTS

DATE: 01/09/14

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0°C - 6.0°C, not frozen except sediment/tissue)

Temperature 2.7°C - 0.3°C (CF) = 2.4°C [] Blank [x] Sample

[] Sample(s) outside temperature criteria (PM/APM contacted by: _____).

[] Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

[] Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: [] Air [] Filter

Checked by: AZL

CUSTODY SEALS INTACT:

[] Cooler [] _____ [] No (Not Intact) [x] Not Present [] N/A Checked by: AZL

[] Sample [] _____ [] No (Not Intact) [x] Not Present Checked by: 836

SAMPLE CONDITION:

Table with 4 columns: Item, Yes, No, N/A. Rows include Chain-Of-Custody (COC) document(s) received with samples, COC document(s) received complete, Sampler's name indicated on COC, Sample container label(s) consistent with COC, Sample container(s) intact and good condition, Proper containers and sufficient volume for analyses requested, Analyses received within holding time, Aqueous samples received within 15-minute holding time, Proper preservation noted on COC or sample container, Volatile analysis container(s) free of headspace, Tedlar bag(s) free of condensation.

CONTAINER TYPE:

Solid: [] 4ozCGJ [] 8ozCGJ [] 16ozCGJ [] Sleeve (____) [] EnCores® [] TerraCores® [] _____

Aqueous: [] VOA [] VOA_h [] VOA_{na2} [] 125AGB [] 125AGB_h [] 125AGB_p [] 1AGB [] 1AGB_{na2} [] 1AGB_s

[] 500AGB [] 500AGJ [] 500AG_{Js} [] 250AGB [] 250CGB [x] 250CGB_s [x] 1PB [] 1PB_{na} [] 500PB

[x] 250PB [x] 250PB_n [x] 125PB [] 125PB_{znna} [] 100PJ [] 100PJ_{na2} [] _____ [] _____ [] _____

Air: [] Tedlar® [] Canister Other: [] _____ Trip Blank Lot#: _____ Labeled/Checked by: 836

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: 300

Preservative: h: HCL n: HNO₃ na₂:Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂+NaOH f: Filtered Scanned by: 836

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Supplemental Report 1

Additional requested analyses have been added to the original report.



CALSCIENCE

WORK ORDER NUMBER: 14-01-0299

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Rincon Consultants

Client Project Name: Los Osos - Groundwater Sampling

Attention: Torin Snyder
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Allyson
for

Approved for release on 02/06/2014 by:
Ranjit Clarke
Project Manager

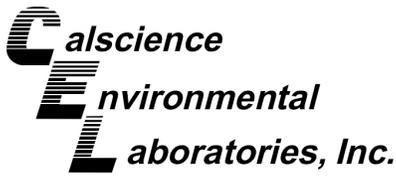
ResultLink ▶

Email your PM ▶



Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.





Contents

Client Project Name: Los Osos - Groundwater Sampling
Work Order Number: 14-01-0299

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Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 01/08/14. They were assigned to Work Order 14-01-0299.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

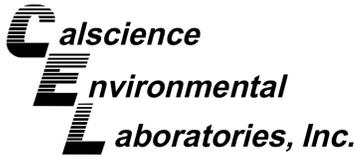
Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.



Analytical Report

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/08/14
Work Order: 14-01-0299
Preparation: N/A
Method: EPA 200.7
Units: mg/L

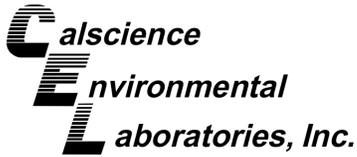
Project: Los Osos - Groundwater Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
18L3r	14-01-0299-1-C	01/07/14 10:32	Aqueous	ICP 7300	01/08/14	01/08/14 22:28	140108LA4
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Sodium		38.0		0.500		1	
Boron		0.0642		0.0200		1	
18J6r	14-01-0299-2-C	01/07/14 11:45	Aqueous	ICP 7300	01/08/14	01/08/14 22:30	140108LA4
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Sodium		53.4		0.500		1	
Boron		0.127		0.0200		1	
8Mb	14-01-0299-3-C	01/07/14 13:10	Aqueous	ICP 7300	01/08/14	01/08/14 22:36	140108LA4
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Sodium		90.8		0.500		1	
Boron		0.0784		0.0200		1	
8Ma	14-01-0299-4-C	01/07/14 15:00	Aqueous	ICP 7300	01/08/14	01/08/14 22:38	140108LA4
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Sodium		27.6		0.500		1	
Boron		0.0205		0.0200		1	
8N2r	14-01-0299-5-C	01/07/14 16:12	Aqueous	ICP 7300	01/08/14	01/08/14 22:40	140108LA4
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Sodium		8.93		0.500		1	
Boron		ND		0.0200		1	
17F4	14-01-0299-6-C	01/07/14 16:50	Aqueous	ICP 7300	01/08/14	01/08/14 22:41	140108LA4
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Sodium		69.1		0.500		1	
Boron		0.0238		0.0200		1	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/08/14
Work Order: 14-01-0299
Preparation: N/A
Method: EPA 200.7
Units: mg/L

Project: Los Osos - Groundwater Sampling

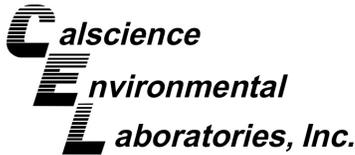
Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-012-5625	N/A	Aqueous	ICP 7300	01/08/14	01/08/14 22:16	140108LA4

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Sodium	ND	0.500	1	
Boron	ND	0.0200	1	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received:
Work Order:

01/08/14
14-01-0299

Project: Los Osos - Groundwater Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
18L3r	14-01-0299-1	01/07/14 10:32	Aqueous

Comment(s): (68) - Dilution analysis was performed outside the recommended holding time.

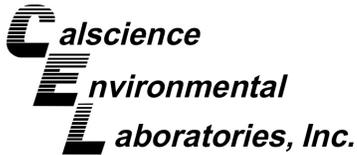
Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Chloride	54	1.0	1		mg/L	N/A	01/08/14	EPA 300.0
Nitrite (as N)	ND	0.10	1		mg/L	N/A	01/08/14	EPA 300.0
Sulfate	17	1.0	1		mg/L	N/A	01/08/14	EPA 300.0
Nitrate (as N) (68)	9.4	0.20	2	BU	mg/L	N/A	02/05/14	EPA 300.0
Solids, Total Dissolved	215	1.00	1		mg/L	01/11/14	01/11/14	SM 2540 C
pH	6.47	0.01	1	BV,BU	pH units	N/A	01/08/14	SM 4500 H+ B
Total Kjeldahl Nitrogen	0.56	0.50	1		mg/L	01/13/14	01/13/14	SM 4500 N Org B
Nitrogen, Organic	0.56	0.50	1	BU	mg/L	02/05/14	02/05/14	SM 4500-N(org)
Ammonia (as N)	ND	0.10	1	BU	mg/L	02/05/14	02/05/14	SM 4500-NH3 F
Nitrate-Nitrite (as N)	9.8	2.5	25		mg/L	01/09/14	01/09/14	SM 4500-NO3 E
Total Nitrogen	10	0.50	1		mg/L	N/A	01/16/14	Total Nitrogen by Calc

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
18J6r	14-01-0299-2	01/07/14 11:45	Aqueous

Comment(s): (68) - Dilution analysis was performed outside the recommended holding time.

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Chloride	55	1.0	1		mg/L	N/A	01/08/14	EPA 300.0
Nitrite (as N)	ND	0.10	1		mg/L	N/A	01/08/14	EPA 300.0
Sulfate	28	1.0	1		mg/L	N/A	01/08/14	EPA 300.0
Nitrate (as N) (68)	12	0.20	2	BU	mg/L	N/A	02/05/14	EPA 300.0
Solids, Total Dissolved	340	1.00	1		mg/L	01/11/14	01/11/14	SM 2540 C
pH	6.44	0.01	1	BV,BU	pH units	N/A	01/08/14	SM 4500 H+ B
Total Kjeldahl Nitrogen	3.1	0.50	1		mg/L	01/13/14	01/13/14	SM 4500 N Org B
Nitrogen, Organic	0.70	0.50	1	BU	mg/L	02/05/14	02/05/14	SM 4500-N(org)
Ammonia (as N)	2.4	0.10	1	BU	mg/L	02/05/14	02/05/14	SM 4500-NH3 F
Nitrate-Nitrite (as N)	14	2.5	25		mg/L	01/09/14	01/09/14	SM 4500-NO3 E
Total Nitrogen	17	0.50	1		mg/L	N/A	01/16/14	Total Nitrogen by Calc

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received:
Work Order:

01/08/14
14-01-0299

Project: Los Osos - Groundwater Sampling

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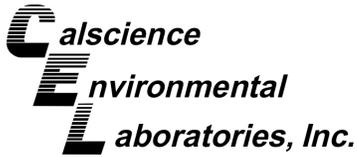
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
8Mb	14-01-0299-3	01/07/14 13:10	Aqueous

Comment(s): (68) - Dilution analysis was performed outside the recommended holding time.

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Nitrite (as N)	ND	0.10	1		mg/L	N/A	01/08/14	EPA 300.0
Sulfate	68	1.0	1		mg/L	N/A	01/08/14	EPA 300.0
Chloride (68)	220	5.0	5		mg/L	N/A	01/10/14	EPA 300.0
Nitrate (as N) (68)	57	1.0	10	BU	mg/L	N/A	02/05/14	EPA 300.0
Solids, Total Dissolved	775	1.00	1		mg/L	01/11/14	01/11/14	SM 2540 C
pH	6.69	0.01	1	BV,BU	pH units	N/A	01/08/14	SM 4500 H+ B
Total Kjeldahl Nitrogen	0.56	0.50	1		mg/L	01/13/14	01/13/14	SM 4500 N Org B
Nitrogen, Organic	0.56	0.50	1	BU	mg/L	02/05/14	02/05/14	SM 4500-N(org)
Ammonia (as N)	ND	0.10	1	BU	mg/L	02/05/14	02/05/14	SM 4500-NH3 F
Nitrate-Nitrite (as N)	57	10	100		mg/L	01/09/14	01/09/14	SM 4500-NO3 E
Total Nitrogen	58	0.50	1		mg/L	N/A	01/16/14	Total Nitrogen by Calc

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Chloride	51	1.0	1		mg/L	N/A	01/08/14	EPA 300.0
Nitrite (as N)	ND	0.10	1		mg/L	N/A	01/08/14	EPA 300.0
Nitrate (as N)	2.5	0.10	1		mg/L	N/A	01/08/14	EPA 300.0
Sulfate	9.2	1.0	1		mg/L	N/A	01/08/14	EPA 300.0
Solids, Total Dissolved	205	1.00	1		mg/L	01/11/14	01/11/14	SM 2540 C
pH	7.09	0.01	1	BV,BU	pH units	N/A	01/08/14	SM 4500 H+ B
Total Kjeldahl Nitrogen	0.70	0.50	1		mg/L	01/13/14	01/13/14	SM 4500 N Org B
Nitrogen, Organic	0.70	0.50	1	BU	mg/L	02/05/14	02/05/14	SM 4500-N(org)
Ammonia (as N)	ND	0.10	1	BU	mg/L	02/05/14	02/05/14	SM 4500-NH3 F
Nitrate-Nitrite (as N)	2.6	0.50	5		mg/L	01/09/14	01/09/14	SM 4500-NO3 E
Total Nitrogen	3.3	0.50	1		mg/L	N/A	01/16/14	Total Nitrogen by Calc

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received:
Work Order:

01/08/14
14-01-0299

Project: Los Osos - Groundwater Sampling

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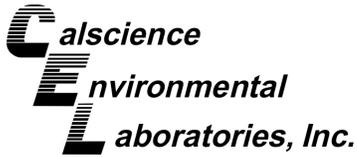
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
8N2r	14-01-0299-5	01/07/14 16:12	Aqueous

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Chloride	13	1.0	1		mg/L	N/A	01/08/14	EPA 300.0
Nitrite (as N)	ND	0.10	1		mg/L	N/A	01/08/14	EPA 300.0
Nitrate (as N)	2.8	0.10	1		mg/L	N/A	01/08/14	EPA 300.0
Sulfate	4.9	1.0	1		mg/L	N/A	01/08/14	EPA 300.0
Solids, Total Dissolved	95	1.0	1		mg/L	01/11/14	01/11/14	SM 2540 C
pH	7.10	0.01	1	BV,BU	pH units	N/A	01/08/14	SM 4500 H+ B
Total Kjeldahl Nitrogen	ND	0.50	1		mg/L	01/13/14	01/13/14	SM 4500 N Org B
Nitrogen, Organic	ND	0.50	1	BU	mg/L	02/05/14	02/05/14	SM 4500-N(org)
Ammonia (as N)	ND	0.10	1	BU	mg/L	02/05/14	02/05/14	SM 4500-NH3 F
Nitrate-Nitrite (as N)	2.9	0.50	5		mg/L	01/09/14	01/09/14	SM 4500-NO3 E
Total Nitrogen	2.9	0.50	1		mg/L	N/A	01/16/14	Total Nitrogen by Calc

17F4	14-01-0299-6	01/07/14 16:50	Aqueous
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Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Nitrite (as N)	ND	0.10	1		mg/L	N/A	01/08/14	EPA 300.0
Nitrate (as N)	0.92	0.10	1		mg/L	N/A	01/08/14	EPA 300.0
Sulfate	16	1.0	1		mg/L	N/A	01/08/14	EPA 300.0
Chloride	130	2.0	2		mg/L	N/A	01/10/14	EPA 300.0
Solids, Total Dissolved	350	1.00	1		mg/L	01/11/14	01/11/14	SM 2540 C
pH	6.61	0.01	1	BV,BU	pH units	N/A	01/08/14	SM 4500 H+ B
Total Kjeldahl Nitrogen	ND	0.50	1		mg/L	01/13/14	01/13/14	SM 4500 N Org B
Nitrogen, Organic	ND	0.50	1	BU	mg/L	02/05/14	02/05/14	SM 4500-N(org)
Ammonia (as N)	ND	0.10	1	BU	mg/L	02/05/14	02/05/14	SM 4500-NH3 F
Nitrate-Nitrite (as N)	1.1	0.20	2		mg/L	01/09/14	01/09/14	SM 4500-NO3 E
Total Nitrogen	1.1	0.50	1		mg/L	N/A	01/16/14	Total Nitrogen by Calc

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/08/14

Work Order: 14-01-0299

Project: Los Osos - Groundwater Sampling

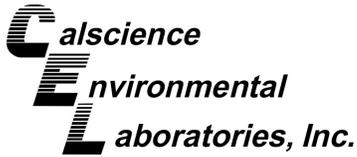
Page 4 of 4

Client Sample Number	Lab Sample Number				Date/Time Collected	Matrix			
Method Blank				N/A			Aqueous		
Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method	
Chloride	ND	1.0	1		mg/L	N/A	01/08/14	EPA 300.0	
Nitrite (as N)	ND	0.10	1		mg/L	N/A	01/08/14	EPA 300.0	
Nitrate (as N)	ND	0.10	1		mg/L	N/A	01/08/14	EPA 300.0	
Sulfate	ND	1.0	1		mg/L	N/A	01/08/14	EPA 300.0	
Nitrate (as N)	ND	0.10	1		mg/L	N/A	02/04/14	EPA 300.0	
Chloride	ND	1.0	1		mg/L	N/A	01/09/14	EPA 300.0	
Solids, Total Dissolved	ND	1.0	1		mg/L	01/11/14	01/11/14	SM 2540 C	
Total Kjeldahl Nitrogen	ND	0.50	1		mg/L	01/13/14	01/13/14	SM 4500 N Org B	
Nitrogen, Organic	ND	0.50	1		mg/L	02/05/14	02/05/14	SM 4500-N(org)	
Ammonia (as N)	ND	0.10	1		mg/L	02/05/14	02/05/14	SM 4500-NH3 F	
Nitrate-Nitrite (as N)	ND	0.10	1		mg/L	01/09/14	01/09/14	SM 4500-NO3 E	



Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - Spike/Spike Duplicate

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/08/14
Work Order: 14-01-0299
Preparation: N/A
Method: EPA 300.0

Project: Los Osos - Groundwater Sampling

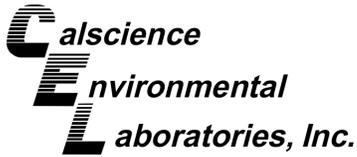
Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
18L3r	Sample	Aqueous	IC 10	N/A	01/08/14 17:42	140108S01
18L3r	Matrix Spike	Aqueous	IC 10	N/A	01/08/14 20:10	140108S01
18L3r	Matrix Spike Duplicate	Aqueous	IC 10	N/A	01/08/14 20:26	140108S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	53.63	5000	5019	99	5006	99	80-120	0	0-20	
Nitrite (as N)	ND	250.0	250.2	100	249.6	100	80-120	0	0-20	
Nitrate (as N)	10.25	500.0	499.5	98	502.7	98	80-120	1	0-20	
Sulfate	16.95	5000	4909	98	4914	98	80-120	0	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/08/14
Work Order: 14-01-0299
Preparation: N/A
Method: EPA 300.0

Project: Los Osos - Groundwater Sampling

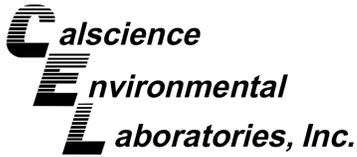
Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-02-0146-1	Sample	Aqueous	IC 10	N/A	02/04/14 20:29	140204S02
14-02-0146-1	Matrix Spike	Aqueous	IC 10	N/A	02/04/14 22:40	140204S02
14-02-0146-1	Matrix Spike Duplicate	Aqueous	IC 10	N/A	02/04/14 22:56	140204S02

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate (as N)	13.00	500.0	507.6	99	504.7	98	80-120	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/08/14
Work Order: 14-01-0299
Preparation: N/A
Method: SM 4500-NO3 E

Project: Los Osos - Groundwater Sampling

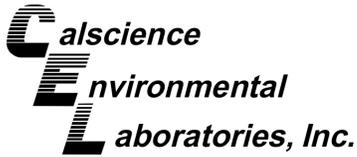
Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-01-0373-6	Sample	Aqueous	UV 8	01/09/14	01/09/14 15:30	E0109NO3S1
14-01-0373-6	Matrix Spike	Aqueous	UV 8	01/09/14	01/09/14 15:30	E0109NO3S1
14-01-0373-6	Matrix Spike Duplicate	Aqueous	UV 8	01/09/14	01/09/14 15:30	E0109NO3S1

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	20.77	25.00	46.80	104	46.65	104	70-130	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

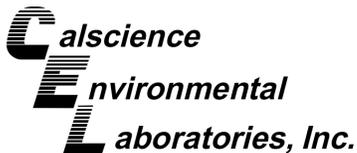
Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/08/14
Work Order: 14-01-0299
Preparation: N/A
Method: EPA 200.7

Project: Los Osos - Groundwater Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
14-01-0266-4	Sample	Aqueous	ICP 7300	01/08/14	01/08/14 22:19	140108SA4				
14-01-0266-4	Matrix Spike	Aqueous	ICP 7300	01/08/14	01/08/14 22:21	140108SA4				
14-01-0266-4	Matrix Spike Duplicate	Aqueous	ICP 7300	01/08/14	01/08/14 22:23	140108SA4				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Sodium	97.97	5.000	103.2	4X	102.8	4X	80-120	4X	0-20	Q
Boron	0.1143	0.5000	0.6456	106	0.6743	112	80-120	4	0-20	



Quality Control - Sample Duplicate

Rincon Consultants
 5135 Avenida Encinas, Suite A
 Carlsbad, CA 92008-9999

Date Received: 01/08/14
 Work Order: 14-01-0299
 Preparation: N/A
 Method: SM 2540 C

Project: Los Osos - Groundwater Sampling

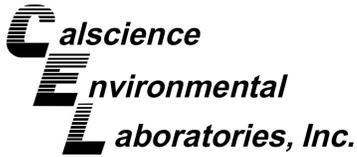
Page 1 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
14-01-0315-1	Sample	Aqueous	SC 5	01/11/14 00:00	01/11/14 15:30	E0111TDSD1
14-01-0315-1	Sample Duplicate	Aqueous	SC 5	01/11/14 00:00	01/11/14 15:30	E0111TDSD1

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	2750	2690	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Sample Duplicate

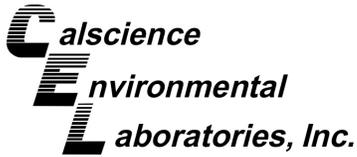
Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/08/14
Work Order: 14-01-0299
Preparation: N/A
Method: SM 4500 H+ B

Project: Los Osos - Groundwater Sampling

Page 2 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
18L3r	Sample	Aqueous	PH 1	N/A	01/08/14 16:35	E0108PHD1
18L3r	Sample Duplicate	Aqueous	PH 1	N/A	01/08/14 16:35	E0108PHD1
<u>Parameter</u>		<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
pH		6.470	6.470	0	0-25	



Quality Control - Sample Duplicate

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

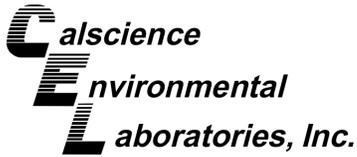
Date Received: 01/08/14
Work Order: 14-01-0299
Preparation: N/A
Method: SM 4500 N Org B

Project: Los Osos - Groundwater Sampling

Page 3 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
14-01-0331-5	Sample	Aqueous	BUR05	01/13/14 00:00	01/13/14 15:22	E0113TKND1
14-01-0331-5	Sample Duplicate	Aqueous	BUR05	01/13/14 00:00	01/13/14 15:22	E0113TKND1

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Total Kjeldahl Nitrogen	38.78	38.36	1	0-25	



Quality Control - LCS

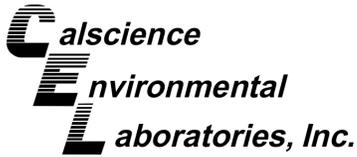
Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/08/14
Work Order: 14-01-0299
Preparation: N/A
Method: EPA 300.0

Project: Los Osos - Groundwater Sampling

Page 1 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-906-4319	LCS	Aqueous	IC 10	N/A	01/08/14 17:09	140108L01
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chloride		50.00	48.83	98	90-110	
Nitrite (as N)		2.500	2.495	100	90-110	
Nitrate (as N)		5.000	4.832	97	90-110	
Sulfate		50.00	48.60	97	90-110	



Quality Control - LCS/LCSD

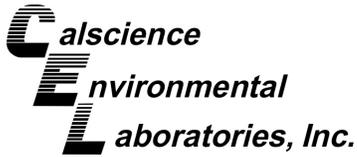
Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/08/14
Work Order: 14-01-0299
Preparation: N/A
Method: EPA 300.0

Project: Los Osos - Groundwater Sampling

Page 2 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-12-906-4320	LCS	Aqueous	IC 10	N/A	01/09/14 23:16	140109L03			
099-12-906-4320	LCSD	Aqueous	IC 10	N/A	01/09/14 23:32	140109L03			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	50.00	49.19	98	49.23	98	90-110	0	0-15	



Quality Control - LCS/LCSD

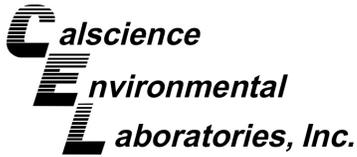
Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/08/14
Work Order: 14-01-0299
Preparation: N/A
Method: EPA 300.0

Project: Los Osos - Groundwater Sampling

Page 3 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-12-906-4381	LCS	Aqueous	IC 10	N/A	02/04/14 16:07	140204L02			
099-12-906-4381	LCSD	Aqueous	IC 10	N/A	02/04/14 16:46	140204L02			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate (as N)	5.000	4.767	95	4.987	100	90-110	5	0-15	



Quality Control - LCS/LCSD

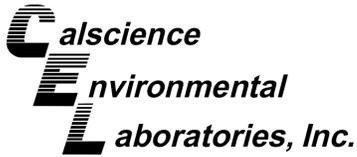
Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/08/14
Work Order: 14-01-0299
Preparation: N/A
Method: SM 2540 C

Project: Los Osos - Groundwater Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-12-180-3935	LCS	Aqueous	SC 5	01/11/14	01/11/14 15:30	E0111TDSL1			
099-12-180-3935	LCSD	Aqueous	SC 5	01/11/14	01/11/14 15:30	E0111TDSL1			
Parameter	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>LCSD Conc.</u>	<u>LCSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Solids, Total Dissolved	100.0	95.00	95	90.00	90	80-120	5	0-20	



Quality Control - LCS/LCSD

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/08/14
Work Order: 14-01-0299
Preparation: N/A
Method: SM 4500-NH3 F

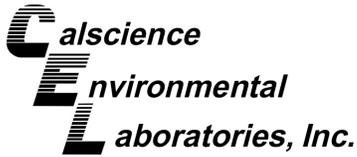
Project: Los Osos - Groundwater Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-12-052-449	LCS	Aqueous	BUR05	02/05/14	02/05/14 17:21	E0205NH3L2			
099-12-052-449	LCSD	Aqueous	BUR05	02/05/14	02/05/14 17:21	E0205NH3L2			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Ammonia (as N)	5.000	4.648	93	4.732	95	80-120	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS/LCSD

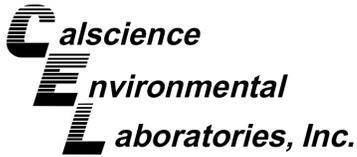
Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/08/14
Work Order: 14-01-0299
Preparation: N/A
Method: SM 4500-NO3 E

Project: Los Osos - Groundwater Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-14-282-233	LCS	Aqueous	UV 8	01/09/14	01/09/14 15:30	E0109NO3L1			
099-14-282-233	LCSD	Aqueous	UV 8	01/09/14	01/09/14 15:30	E0109NO3L1			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.5000	0.5330	107	0.5290	106	80-120	1	0-20	



Quality Control - LCS

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/08/14
Work Order: 14-01-0299
Preparation: N/A
Method: EPA 200.7

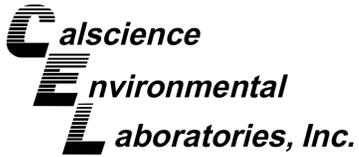
Project: Los Osos - Groundwater Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-012-5625	LCS	Aqueous	ICP 7300	01/08/14	01/08/14 22:18	140108LA4
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Sodium		5.000	4.824	96	85-115	
Boron		0.5000	0.4596	92	85-115	


Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Sample Analysis Summary Report

Work Order: 14-01-0299

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 200.7	N/A	598	ICP 7300	1
EPA 300.0	N/A	811	IC 10	1
SM 2540 C	N/A	868	SC 5	1
SM 4500 H+ B	N/A	688	PH 1	1
SM 4500 N Org B	N/A	685	BUR05	1
SM 4500-N(org)	N/A	685	N/A	1
SM 4500-NH3 F	N/A	685	BUR05	1
SM 4500-NO3 E	N/A	848	UV 8	1
Total Nitrogen by Calc	N/A	92	N/A	1

A blue arrow pointing upwards, with the text 'Return to Contents' written vertically to its right.

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 14-01-0299

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

WORK ORDER #: **14-01-0299**

SAMPLE RECEIPT FORM

Cooler 1 of 2

CLIENT: Rincon Consultants

DATE: 01/8/14

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Temperature 2.7 °C - 0.3°C (CF) = 2.4 °C Blank Sample

Sample(s) outside temperature criteria (PM/APM contacted by: _____).

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: Air Filter

Checked by: 836

CUSTODY SEALS INTACT:

Cooler _____ No (Not Intact) Not Present N/A

Checked by: 836

Sample _____ No (Not Intact) Not Present

Checked by: 836

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> No analysis requested. <input checked="" type="checkbox"/> Not relinquished. <input checked="" type="checkbox"/> No date/time relinquished.			
Sampler's name indicated on COC.....	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples received within 15-minute holding time			
<input checked="" type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfides <input type="checkbox"/> Dissolved Oxygen.....	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve (____) EnCores® TerraCores® _____

Aqueous: VOA VOA_h VOA_{na2} 125AGB 125AGB_h 125AGB_p 1AGB 1AGB_{na2} 1AGB_s

500AGB 500AGJ 500AGJ_s 250AGB 250CGB 250CGB_s 1PB 1PB_{na} 500PB

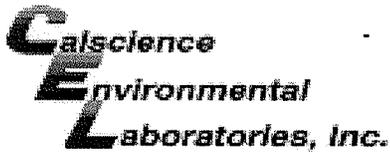
250PB 250PB_n 125PB 125PB_z 100PJ 100PJ_{na2} _____ _____ _____

Air: Tedlar® Canister Other: _____ Trip Blank Lot#: _____ Labeled/Checked by: 836

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: 836

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure z_{na}: ZnAc₂+NaOH f: Filtered Scanned by: 836

Return to Contents



WORK ORDER #: 14-01-0299

SAMPLE RECEIPT FORM

Cooler 2 of 2

CLIENT: Rincon Consultants

DATE: 01/8/14

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Temperature 2.9°C - 0.3°C (CF) = 2.6°C [] Blank [x] Sample

[] Sample(s) outside temperature criteria (PM/APM contacted by: _____).

[] Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

[] Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: [] Air [] Filter

Checked by: 836

CUSTODY SEALS INTACT:

[] Cooler [] _____ [] No (Not Intact) [x] Not Present [] N/A Checked by: 836

[] Sample [] _____ [] No (Not Intact) [x] Not Present Checked by: 836

SAMPLE CONDITION:

Chain-Of-Custody (COC) document(s) received with samples..... [x] Yes [] No [] N/A

COC document(s) received complete..... [] Yes [x] No [] N/A

[] Collection date/time, matrix, and/or # of containers logged in based on sample labels.

[] No analysis requested. [x] Not relinquished. [x] No date/time relinquished.

Sampler's name indicated on COC..... [] Yes [x] No [] N/A

Sample container label(s) consistent with COC..... [x] Yes [] No [] N/A

Sample container(s) intact and good condition..... [x] Yes [] No [] N/A

Proper containers and sufficient volume for analyses requested..... [x] Yes [] No [] N/A

Analyses received within holding time..... [x] Yes [] No [] N/A

Aqueous samples received within 15-minute holding time

[x] pH [] Residual Chlorine [] Dissolved Sulfides [] Dissolved Oxygen..... [] Yes [x] No [] N/A

Proper preservation noted on COC or sample container..... [x] Yes [] No [] N/A

[] Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace..... [] Yes [] No [x] N/A

Tedlar bag(s) free of condensation..... [] Yes [] No [x] N/A

CONTAINER TYPE:

Solid: [] 4ozCGJ [] 8ozCGJ [] 16ozCGJ [] Sleeve (____) [] EnCores® [] TerraCores® [] _____

Aqueous: [] VOA [] VOA_h [] VOA_{na2} [] 125AGB [] 125AGB_h [] 125AGB_p [] 1AGB [] 1AGB_{na2} [] 1AGB_s

[] 500AGB [] 500AGJ [] 500AGJ_s [] 250AGB [] 250CGB [x] 250CGB_s [x] 1PB [] 1PB_{na} [] 500PB

[] 250PB [x] 250PB_n [x] 125PB [] 125PB_{znna} [] 100PJ [] 100PJ_{na2} [] _____ [] _____ [] _____

Air: [] Tedlar® [] Canister Other: [] _____ Trip Blank Lot#: _____ Labeled/Checked by: 836

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: 836

Preservative: h: HCL n: HNO₃ na₂:Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂+NaOH f: Filtered Scanned by: 836

Return to Contents



Supplemental Report 1

Additional requested analyses have been added to the original report.



CALSCIENCE

WORK ORDER NUMBER: 14-01-0192

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Rincon Consultants

Client Project Name: SLO County

Attention: Torin Snyder
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Allyson
for

Approved for release on 02/06/2014 by:
Ranjit Clarke
Project Manager

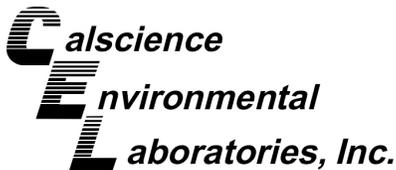
ResultLink ▶

Email your PM ▶



Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.





Contents

Client Project Name: SLO County
Work Order Number: 14-01-0192

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Work Order Narrative

Work Order: 14-01-0192

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Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 01/07/14. They were assigned to Work Order 14-01-0192.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

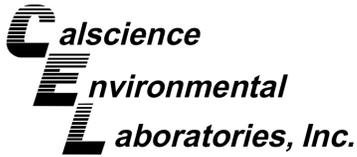
Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.



Analytical Report

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/07/14
Work Order: 14-01-0192
Preparation: N/A
Method: EPA 200.7
Units: mg/L

Project: SLO County

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
18L4	14-01-0192-1-B	01/06/14 15:35	Aqueous	ICP 7300	01/07/14	01/07/14 18:42	140107LA3

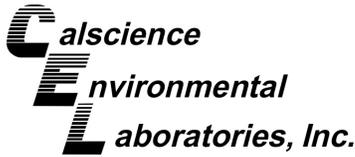
Parameter	Result	RL	DF	Qualifiers
Sodium	62.7	0.500	1	B
Boron	0.136	0.0200	1	

Method Blank	097-01-012-5623	N/A	Aqueous	ICP 7300	01/07/14	01/07/14 18:38	140107LA3
--------------	-----------------	-----	---------	----------	----------	-------------------	-----------

Parameter	Result	RL	DF	Qualifiers
Sodium	0.610	0.500	1	
Boron	ND	0.0200	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Rincon Consultants
 5135 Avenida Encinas, Suite A
 Carlsbad, CA 92008-9999
 Project: SLO County

Date Received: 01/07/14
 Work Order: 14-01-0192

Page 1 of 1

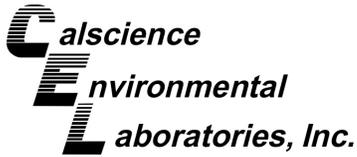
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
18L4	14-01-0192-1	01/06/14 15:35	Aqueous

Comment(s): (68) - Dilution analysis was performed outside the recommended holding time.
 (170) - Sample analysis requested after recommended holding time.

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Nitrite (as N) (170)	ND	0.10	1	BU	mg/L	N/A	01/08/14	EPA 300.0
Sulfate (170)	33	1.0	1		mg/L	N/A	01/08/14	EPA 300.0
Chloride (68)	120	2.0	2		mg/L	N/A	01/09/14	EPA 300.0
Nitrate (as N) (68)	18	0.20	2	BU	mg/L	N/A	01/09/14	EPA 300.0
Solids, Total Dissolved	430	1.00	1		mg/L	01/10/14	01/10/14	SM 2540 C
pH	6.24	0.01	1	BV	pH units	01/07/13	01/07/13	SM 4500 H+ B
Total Kjeldahl Nitrogen	ND	0.50	1		mg/L	01/09/14	01/09/14	SM 4500 N Org B
Nitrogen, Organic	ND	0.50	1	BU	mg/L	02/05/14	02/05/14	SM 4500-N(org)
Ammonia (as N)	ND	0.10	1	BU	mg/L	02/05/14	02/05/14	SM 4500-NH3 F
Nitrate-Nitrite (as N)	16	2.5	25		mg/L	01/07/14	01/07/14	SM 4500-NO3 E
Total Nitrogen	16	0.50	1		mg/L	N/A	01/13/14	Total Nitrogen by Calc

Method Blank	N/A						Aqueous	
Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Nitrite (as N)	ND	0.10	1		mg/L	N/A	01/08/14	EPA 300.0
Sulfate	ND	1.0	1		mg/L	N/A	01/08/14	EPA 300.0
Chloride	ND	1.0	1		mg/L	N/A	01/09/14	EPA 300.0
Nitrate (as N)	ND	0.10	1		mg/L	N/A	01/09/14	EPA 300.0
Solids, Total Dissolved	ND	1.0	1		mg/L	01/10/14	01/10/14	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1		mg/L	01/09/14	01/09/14	SM 4500 N Org B
Nitrogen, Organic	ND	0.50	1		mg/L	02/05/14	02/05/14	SM 4500-N(org)
Ammonia (as N)	ND	0.10	1		mg/L	02/05/14	02/05/14	SM 4500-NH3 F
Nitrate-Nitrite (as N)	ND	0.10	1		mg/L	01/07/14	01/07/14	SM 4500-NO3 E

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - Spike/Spike Duplicate

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/07/14
Work Order: 14-01-0192
Preparation: N/A
Method: EPA 300.0

Project: SLO County

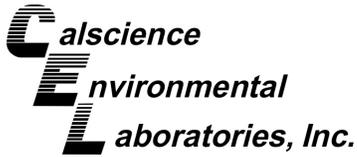
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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-01-0299-1	Sample	Aqueous	IC 10	N/A	01/08/14 17:42	140108S01
14-01-0299-1	Matrix Spike	Aqueous	IC 10	N/A	01/08/14 20:10	140108S01
14-01-0299-1	Matrix Spike Duplicate	Aqueous	IC 10	N/A	01/08/14 20:26	140108S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrite (as N)	ND	250.0	250.2	100	249.6	100	80-120	0	0-20	
Sulfate	16.95	5000	4909	98	4914	98	80-120	0	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

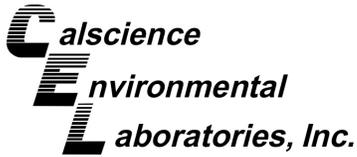
Date Received: 01/07/14
Work Order: 14-01-0192
Preparation: N/A
Method: SM 4500-NO3 E

Project: SLO County

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
18L4	Sample	Aqueous	UV 8	01/07/14	01/07/14 17:00	E0107NO3S1
18L4	Matrix Spike	Aqueous	UV 8	01/07/14	01/07/14 17:00	E0107NO3S1
18L4	Matrix Spike Duplicate	Aqueous	UV 8	01/07/14	01/07/14 17:00	E0107NO3S1

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	15.76	12.50	29.00	106	27.75	96	70-130	4	0-25	



Quality Control - Spike/Spike Duplicate

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/07/14
Work Order: 14-01-0192
Preparation: N/A
Method: EPA 200.7

Project: SLO County

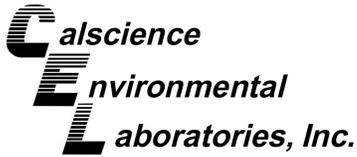
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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-01-0221-1	Sample	Aqueous	ICP 7300	01/07/14	01/07/14 19:09	140107SA3A
14-01-0221-1	Matrix Spike	Aqueous	ICP 7300	01/07/14	01/07/14 19:21	140107SA3A
14-01-0221-1	Matrix Spike Duplicate	Aqueous	ICP 7300	01/07/14	01/07/14 19:23	140107SA3A

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Sodium	251.5	5.000	234.5	4X	251.2	4X	80-120	4X	0-20	Q
Boron	0.2584	0.5000	0.7867	106	0.8158	111	80-120	4	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Sample Duplicate

Rincon Consultants
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Carlsbad, CA 92008-9999

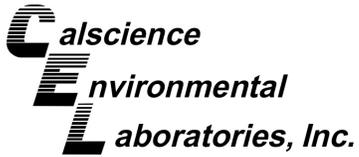
Date Received: 01/07/14
Work Order: 14-01-0192
Preparation: N/A
Method: SM 2540 C

Project: SLO County

Page 1 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
14-01-0198-1	Sample	Aqueous	SC 5	01/10/14 00:00	01/10/14 16:20	E0110TDSD1
14-01-0198-1	Sample Duplicate	Aqueous	SC 5	01/10/14 00:00	01/10/14 16:20	E0110TDSD1

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	460.0	445.0	3	0-20	



Quality Control - Sample Duplicate

Rincon Consultants
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Carlsbad, CA 92008-9999

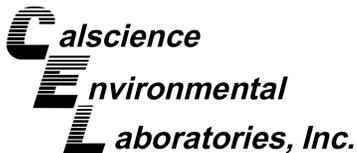
Date Received: 01/07/14
Work Order: 14-01-0192
Preparation: N/A
Method: SM 4500 H+ B

Project: SLO County

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
14-01-0210-1	Sample	Aqueous	PH 1	01/07/14 00:00	01/07/14 18:20	E0107PHD1
14-01-0210-1	Sample Duplicate	Aqueous	PH 1	01/07/14 00:00	01/07/14 18:20	E0107PHD1

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
pH	6.860	6.920	1	0-25	



Quality Control - Sample Duplicate

Rincon Consultants
 5135 Avenida Encinas, Suite A
 Carlsbad, CA 92008-9999

Date Received: 01/07/14
 Work Order: 14-01-0192
 Preparation: N/A
 Method: SM 4500 N Org B

Project: SLO County

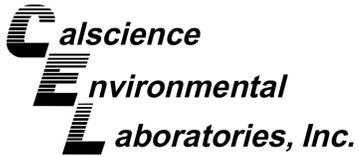
Page 3 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
14-01-0066-3	Sample	Aqueous	BUR05	01/09/14 00:00	01/09/14 16:09	E0109TKND1
14-01-0066-3	Sample Duplicate	Aqueous	BUR05	01/09/14 00:00	01/09/14 16:07	E0109TKND1

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Total Kjeldahl Nitrogen	0.5600	0.5600	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/07/14
Work Order: 14-01-0192
Preparation: N/A
Method: EPA 300.0

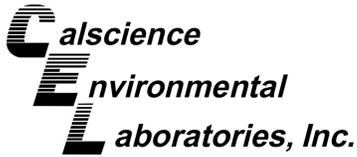
Project: SLO County

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-906-4319	LCS	Aqueous	IC 10	N/A	01/08/14 17:09	140108L01
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Nitrite (as N)		2.500	2.495	100	90-110	
Sulfate		50.00	48.60	97	90-110	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS/LCSD

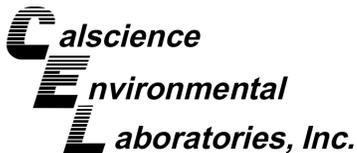
Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/07/14
Work Order: 14-01-0192
Preparation: N/A
Method: EPA 300.0

Project: SLO County

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-12-906-4320	LCS	Aqueous	IC 10	N/A	01/09/14 23:16	140109L03			
099-12-906-4320	LCSD	Aqueous	IC 10	N/A	01/09/14 23:32	140109L03			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	50.00	49.19	98	49.23	98	90-110	0	0-15	
Nitrate (as N)	5.000	4.857	97	4.888	98	90-110	1	0-15	



Quality Control - LCS/LCSD

Rincon Consultants
 5135 Avenida Encinas, Suite A
 Carlsbad, CA 92008-9999

Date Received: 01/07/14
 Work Order: 14-01-0192
 Preparation: N/A
 Method: SM 2540 C

Project: SLO County

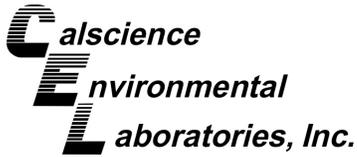
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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-180-3934	LCS	Aqueous	SC 5	01/10/14	01/10/14 16:20	E0110TDSL1
099-12-180-3934	LCSD	Aqueous	SC 5	01/10/14	01/10/14 16:20	E0110TDSL1

Parameter	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>LCSD Conc.</u>	<u>LCSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Solids, Total Dissolved	100.0	95.00	95	90.00	90	80-120	5	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS/LCSD

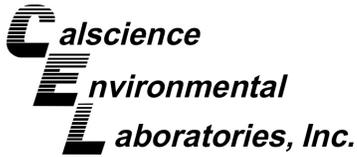
Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/07/14
Work Order: 14-01-0192
Preparation: N/A
Method: SM 4500-NH3 F

Project: SLO County

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-12-052-449	LCS	Aqueous	BUR05	02/05/14	02/05/14 17:21	E0205NH3L2			
099-12-052-449	LCSD	Aqueous	BUR05	02/05/14	02/05/14 17:21	E0205NH3L2			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Ammonia (as N)	5.000	4.648	93	4.732	95	80-120	2	0-20	



Quality Control - LCS/LCSD

Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008-9999

Date Received: 01/07/14
Work Order: 14-01-0192
Preparation: N/A
Method: SM 4500-NO3 E

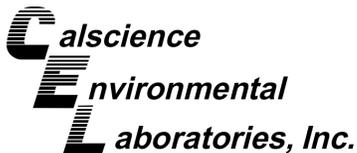
Project: SLO County

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-14-282-232	LCS	Aqueous	UV 8	01/07/14	01/07/14 17:00	E0107NO3L1			
099-14-282-232	LCSD	Aqueous	UV 8	01/07/14	01/07/14 17:00	E0107NO3L1			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.5000	0.5060	101	0.5110	102	80-120	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS

Rincon Consultants
 5135 Avenida Encinas, Suite A
 Carlsbad, CA 92008-9999

Date Received: 01/07/14
 Work Order: 14-01-0192
 Preparation: N/A
 Method: EPA 200.7

Project: SLO County

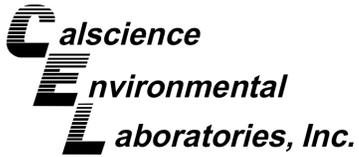
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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-012-5623	LCS	Aqueous	ICP 7300	01/07/14	01/07/14 18:40	140107LA3

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Sodium	5.000	5.689	114	85-115	
Boron	0.5000	0.4722	94	85-115	



RPD: Relative Percent Difference. CL: Control Limits



Sample Analysis Summary Report

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<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 200.7	N/A	598	ICP 7300	1
EPA 300.0	N/A	811	IC 10	1
SM 2540 C	N/A	722	SC 5	1
SM 4500 H+ B	N/A	688	PH 1	1
SM 4500 N Org B	N/A	685	BUR05	1
SM 4500-N(org)	N/A	685	N/A	1
SM 4500-NH3 F	N/A	685	BUR05	1
SM 4500-NO3 E	N/A	848	UV 8	1
Total Nitrogen by Calc	N/A	92	N/A	1


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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

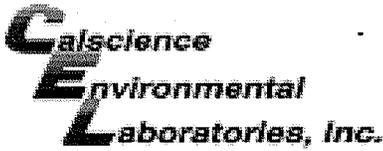
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<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.



WORK ORDER #: 14-01-0192

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Rincon Consultants

DATE: 01/07/14

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0°C - 6.0°C, not frozen except sediment/tissue)
Temperature 2.6°C - 0.3°C (CF) = 2.3°C
Sample
Received at ambient temperature, placed on ice for transport by Courier.
Ambient Temperature: Air Filter
Checked by: 836

CUSTODY SEALS INTACT:
Cooler No (Not Intact) Not Present N/A
Sample No (Not Intact) Not Present
Checked by: 836

SAMPLE CONDITION:
Chain-Of-Custody (COC) document(s) received with samples...
COC document(s) received complete...
Collection date/time, matrix, and/or # of containers logged in based on sample labels.
Sampler's name indicated on COC...
Sample container label(s) consistent with COC...
Sample container(s) intact and good condition...
Proper containers and sufficient volume for analyses requested...
Analyses received within holding time...
Aqueous samples received within 15-minute holding time
pH Residual Chlorine Dissolved Sulfides Dissolved Oxygen...
Proper preservation noted on COC or sample container...
Unpreserved vials received for Volatiles analysis
Volatile analysis container(s) free of headspace...
Tedlar bag(s) free of condensation...

CONTAINER TYPE:
Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve EnCores TerraCores
Aqueous: VOA VOAh VOAna2 125AGB 125AGBh 125AGBp 1AGB 1AGBna2 1AGBs
500AGB 500AGJ 500AGJs 250AGB 250CGB 250CGBs 1PB 1PBna 500PB
250PB 250PBn 125PB 125PBzna 100PJ 100PJna
Air: Tedlar Canister Other: Trip Blank Lot#: Labeled/Checked by: 836
Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: 659
Preservative: h: HCL n: HNO3 na2: Na2S2O3 na: NaOH p: H3PO4 s: H2SO4 u: Ultra-pure zna: ZnAc2+NaOH f: Filtered Scanned by: 659

* Collection date/time on label, 1/6/14 @ 1535



