APPENDIX M

NEBEKER RANCH SOIL ASSESSMENT REPORT

Final Report

NEBEKER RANCH SOIL SAMPLE ANALYSIS

County Sanitation Districts of Los Angeles County

October 2001

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ESA Environmental Science Associates

200481

Nebeker Ranch Soil Sample Analysis – September 18, 2001

Introduction

Soil samples were collected at Nebeker Ranch on September 18, 2001 by Environmental Science Associates staff. The purpose of the study was to investigate the effects of irrigation with recycled effluent. Samples were collected from 0.5 to 6.5 feet a variety of locations throughout Nebeker Ranch. In addition, two background borings were conducted from areas near Nebeker Ranch that had not been irrigated with effluent. The samples were analyzed for 17 metals regulated under Title 22 and several agronomic parameters such as boron, sodium, potassium, magnesium, calcium, chloride, nitrate, total Kjeldal nitrogen, total organic carbon, specific conductance, and pH. Concentrations and stratifications of chemicals in Nebeker soil samples were compared with those in the background borings. Additionally, concentrations were compared with Title 22 maximum contaminant limits for metals.

Methods

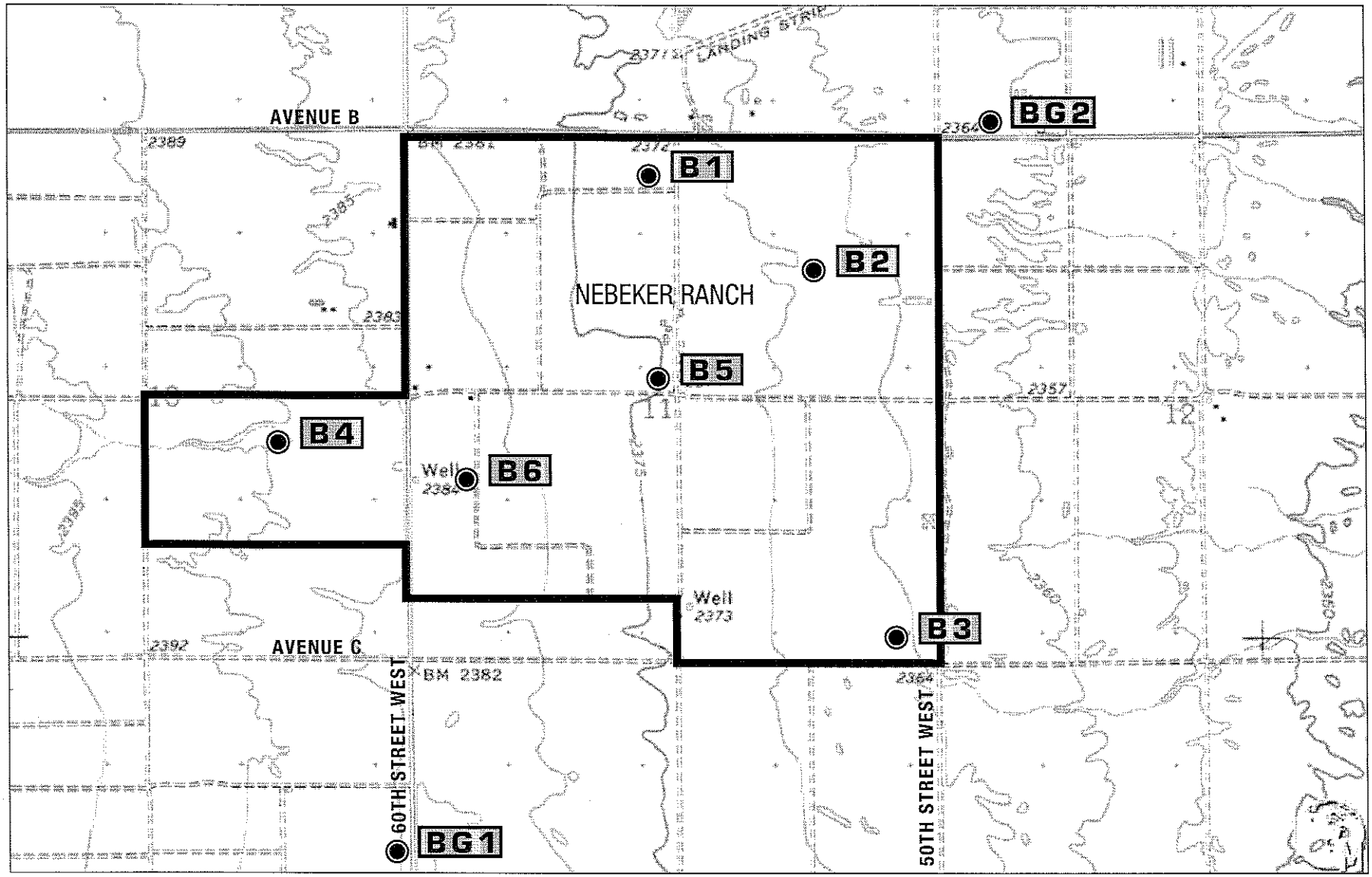
Sampling

Soil samples were collected following the EPA-approved soil sampling protocol (*Preparation of Soil Sampling Protocols: Sampling Techniques and Strategies*, EPA/600/R-92/128, July 1992). Borings were made manually using an auger. Samples were taken at the appropriate depths by scooping soil from the mouth of the auger into an 8-ounce glass jar. A total of 8 borings were completed, 2 off-site background borings and 6 borings on-site. Table 1 summarizes the borings and samples taken and the conditions observed. Figure 1 shows the locations of the borings.

Borings B1, B2, B3, B4 and B6 were taken within alfalfa fields. Alfalfa plants rose approximately 1 ft. from the ground. Boring B5 was made alongside a road in between an alfalfa field and a sheep pen on Nebeker Ranch property. For borings B1, B2, and B4, samples were taken at 0.5 feet, 1.5 feet, and 3.5 feet. For boring B3, samples were taken at 0.5 feet, 1.5 feet, 3.5 feet, and 6.5 feet. Borings B5 and B6 were surface samples at 0.5 feet.

Table 1: Summary of Borings and Observations

Sample	Depth (feet)	Description	Time
BG1-0.5	0.5	Light tan, dry, fine, silty sand,	2:00
BG1-1.5	1.5	White tan, very dry, powdery, silty sand	2:00
BG1-3.5	3.5	White tan, very dry, powdery, silty sand	2:00
BG2-0.5	0.5	Tan, dry, fine, sandy silt	2:30
BG2-1.5	1.5	Brown, slight moist, silty sand, some clay, some organics	2:30
BG2-3.0	3.0	Light brown, dry, silty sand, some pebbles, powdery	2:30
B1-0.5	0.5	Brown, moist, loamy	10:30
B1-1.5	1.5	Tan, less moist, fine, loamy, some roots	10:30
B1-3.5	3.5	Tan, slight moist, more clay content, uniform grain	10:30
B2-0.5	0.5	Brown, slight moist, silty, clayey, some roots, worm	10:45
B2-1.5	1.5	Dark brown, slight moist, more clayey	10:45
B2-3.5	3.5	Tan, slight moist, silty clay, uniform grain	10:45
B3-0.5	0.5	Light brown, slight moist, sandy, pebbles, fine, some root	11:35
B3-1.5	1.5	Brown, slight moist, silty, fine	11:35
B3-3.5	3.5	Brown, slight moist, silty, fine	11:35
B3-6.5	6.5	Light brown, slight moist, more sandy, pebbles, fine	11:35
B4-0.5	0.5	Dark brown, moist, silty sand, small grain, spongy	1:30
B4-1.5	1.5	Dark brown, moist, silty sand, small grain, spongy	1:30
B4-3.5	3.5	Tan, less moist, silty, fine	1:30
B5-0.5	0.5	Gray, dry, sandy, some pebbles, some straw	11:00
B6-0.5	0.5	Dark brown, moist, silty clay, some roots	2:00



SOURCE: Environmental Science Associates

LWRP 2020 Facilities Plan EIR / 200481 ■

Figure 1
Soil Sample Locations

Two background samples were taken nearby Nebeker Ranch. Boring BG1 was sampled at 0.5 feet, 1.5 feet, and 3.5 feet. Boring BG2 was sampled at 0.5, 1.5, and3.0 feet. We were unable to bore past 3.0 feet at this location due to hardness at the soil depth.

Analysis

Samples were analyzed by Advanced Technology Laboratory (ATL) for the CAM 17 metals, boron, sodium, potassium, magnesium, calcium, chloride, nitrate, total Kjeldal nitrogen, total organic carbon, specific conductance, and pH. Sample analysis results are shown in Tables 2, 3, and 4. All methods are EPA-approved.

Results

Metals

Table 2 shows concentrations of each metal analyte in each sample. The concentrations of metals in soils at Nebeker Ranch are similar to those in the background samples. The highest metal concentrations were found off-site at boring BG2. Samples taken from boring BG2 contained the highest concentrations of arsenic, copper and zinc.

Table 4 shows the concentrations of metals in the Nebeker soils compared to Title 22 toxic limits. Title 22 gives toxic limits for 12 of the 17 metals analyzed. None of the metal concentrations in Nebeker soils exceed the limits defined for these contaminants in Title 22. Also, none of the metal concentrations of the background samples exceed the Title 22 limits.

TABLE 2: ANALYSIS OF TITLE 22 METALS BY METHOD 6010B

Sample	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	Ag	Tl	V	Zn	*Hg
BG1-0.5	0.41	12	74	-	-	17	8	16	7.5	0.41	13	-	-	-	27	70	0.2
BG1-1.5	0.28	10	57	-	-	10	6	10	3.5	-	7.5	-	-	-	20	44	0.23
BG1-3.5	0.38	8.5	48	-	-	10	4.5	4	2.5	0.3	6.5	-	-	-	14	34	-
BG2-0.5	0.34	6	36	-	-	14	5	8	2.5	0.3	12	-	-	-	16	31	-
BG2-1.5	0.43	18	48	-	-	22	9	19	8	0.5	16	-	-	-	34	72	0.14
BG2-3.0	0.46	22	45	-	-	11	5.5	7.5	3.5	0.38	8.5	-	-	-	36	36	-
B1-0.5	0.34	10	52	-	-	15	7.5	12	5.5	0.34	12	-	-	-	26	52	-
B1-1.5	0.48	13	52	-	-	10	5.5	9	3.5	0.27	7.5	-	-	-	27	37	0.13
B1-3.5	-	18	64	-	-	12	7.5	8.5	4	0.38	9	-	-	-	36	50	-
B2-0.5	0.34	9	47	-	-	16	6.5	12	5	-	10	-	-	-	24	53	-
B2-1.5	0.5	12	62	-	-	20	8	14	7	0.32	15	-	-	-	30	56	-
B2-3.5	0.39	18	86	-	-	15	8	10	5	0.5	11	-	-	-	32	53	-
B3-0.5	0.31	9	37	-	-	9.5	5	7	3.5	0.29	7	-	-	-	20	36	-
B3-1.5	0.35	12	42	-	-	13	7	6.5	3.5	0.5	9.5	-	-	-	28	46	-
B3-3.5	-	14	53	-	-	13	6	9	3.5	0.5	10	-	-	-	25	42	-
B3-6.5	-	6.5	48	-	-	6	3	4	2	-	4	-	-	-	15	25	-
B4-0.5	-	7.5	40	-	-	12	6	9	4	-	8.5	-	-	-	20	43	-
B4-1.5	0.28	7	35	-	-	11	5.5	6.5	4	-	9	-	-	-	20	45	-
B4-3.5	0.33	9.5	44	-	-	11	5.5	5.5	3.5	0.37	8	-	-	-	24	40	-
B5-0.5	0.5	7	38	-	-	38	5	8.5	5.5	0.5	20	-	-	0.25	19	44	-
B6-0.5	0.46	12	64	-	-	16	7	12	6	0.38	10	-	-	-	26	58	0.11
Det. Lim.	**0.25**	**0.25**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.25**	**0.25**	**0.15**	**0.25**	**0.15**	**0.25**	**0.15**	**0.5**	**0.1**

*Hg was analyzed by Method 7471A.

TABLE 3: ANALYSIS OF AGRONOMICAL PARAMETERS

Analyte *	Conduct.	NO_3^-	PO_4^{-3}	K^+	Na^+	pH	TOC	TKN	Cl^-	B	Ca^{+2}	Mg^{+2}
BG1-0.5	93	17	-	5600	410	7.84	620	184	180	15	6100	11000
BG1-1.5	120	18	-	3500	710	8.92	800	96.5	140	14	39000	17000
BG1-3.5	140	11	-	2200	790	9.59	2600	21.5	130	6	39000	5200
BG2-0.5	58	14	-	1800	420	8.36	150	61.5	160	5	2800	3500
BG2-1.5	1800	20	-	5900	5000	9.79	1900	131	770	57	13000	14000
BG2-3.0	1500	15	-	2200	2700	9.74	690	43.5	390	18	2200	8800
B1-0.5	120	26	-	3800	620	8.82	1000	288	280	13	11000	7700
B1-1.5	210	15	-	2500	1100	9.23	830	76.5	260	10	37000	17000
B1-3.5	160	13	-	3300	750	9.06	140	26.5	190	7	21000	6700
B2-0.5	120	24	-	3400	660	8	700	346	160	12	5900	5900
B2-1.5	140	22	-	2100	690	7.92	490	173	290	12	6600	7500
B2-3.5	140	15	-	1600	1400	8.53	1400	59.5	180	10	45000	8700
B3-0.5	110	17	-	2500	550	8.65	370	110	140	7.5	7400	4500
B3-1.5	110	12	-	2600	660	8.93	95	73.5	150	8	5600	6400
B3-3.5	180	12	-	1800	840	9.15	88	69	160	8.5	15000	7900
B3-6.5	140	13	-	1100	730	9.43	130	16	160	3.5	5600	3600
B4-0.5	45	17	-	3100	410	7.42	140	119	170	5.5	2800	4500
B4-1.5	54	22	-	3000	620	8.7	73	58	340	6.5	2600	4600
B4-3.5	130	12	-	2100	450	9.17	160	28	170	6.5	12000	5600
B5-0.5	240	12	45	3400	470	7.87	990	448	210	12	4000	4000
B6-0.5	120	17	-	2800	880	8.18	650	77	160	11	16000	8900
Method	**120.1**	**300**	**300**	**7610**	**7770**	**9045C**	**9060**	**351.3**	**300**	**6010B**	**6010B**	**6010B**
Det. Lim.	**0.1**	**5**	**25**	**800**	**100**	**0.1**	**30**	**0.5**	**25**	**2.5**	**5**	**5**

* Conduct. = Conductivity, TOC = Total Organic Carbon, TKN = Total Kjeldal Nitrogen

TABLE 4: TITLE 22 METAL RESULTS VERSUS TOXIC LIMITS

Analyte	Title 22 Toxic Limits * (mg/kg)	Sampling Results**			
		Depth (ft)	Maximum (mg/kg)	Average (mg/kg)	Background BG-1 (mg/kg)
Arsenic	500	0.5	12	9.1	12.0
		1.5	13	11.0	10.0
		3.5	18	14.9	8.5
		6.5	6.5	6.5	
Cadmium	100	0.5	-	-	-
		1.5	-	-	-
		3.5	-	-	-
		6.5	-	-	
Chromium (total)	2,500	0.5	38	18	17
		1.5	22	14	10
		3.5	15	13	10
		6.5	6	6	
Copper	2,500	0.5	12	10	16
		1.5	19	9	10
		3.5	10	8	4
		6.5	4	4	
Lead	500	0.5	6	4.9	7.5
		1.5	7	4.5	3.5
		3.5	5	4.0	2.5
		6.5	2	2.0	
Mercury	20	0.5	0.11	0.02	0.20
		1.5	0.13	0.03	0.23
		3.5	-	-	-
		6.5	-	-	
Molybdenum	3,500	0.5	0.38	0.25	0.41
		1.5	0.32	0.27	-
		3.5	0.50	0.44	0.30
		6.5	-	-	
Nickel	2,000	0.5	20	11.3	13.0
		1.5	16	10.3	7.5
		3.5	11	9.5	6.5
		6.5	4	4.0	
Selenium	100	0.5	-	-	-
		1.5	-	-	-
		3.5	-	-	-
		6.5	-	-	
Silver	500	0.5	-	-	-
		1.5	-	-	-
		3.5	-	-	-
		6.5	-	-	
Zinc	5,000	0.5	58	48	70
		1.5	56	46	44
		3.5	53	46	34
		6.5	25	25	

* Source: California Code of Regulations, Title 22 Limits

** A dash indicated that no metal was detected.
A blank indicates that no sample was taken at the level specified.

Agronomic Soil Parameters

Table 3 shows the agronomic characteristics determined for each sample. The analysis indicated that the Nebeker samples and the first background sample (BG1) contained very similar concentrations and stratifications of all the agronomic parameters analyzed. The second background sample (BG2) tended to show more stratified layers and higher sodium concentration and conductivity. This sample was the farthest east.

Stratification of agronomic features for Nebeker samples and samples from background boring BG1 generally followed a smooth trend, indicating consistent soil type throughout the 3.5-foot (or 6.5-foot) layer analyzed. One trend in agronomic parameters of the Nebeker soils is the relationship between nitrate concentration and depth. Nitrate is an essential soil component for the growth of plants. However, if crops are unable to utilize the level of nitrate provided in soils, an excess develops. An overabundance of nitrate can cause groundwater contamination, particularly if soils are sandy and allow significant migration of chemicals. The concentration of nitrates in Nebeker Ranch soils tended to decrease with increasing depth. This relationship is shown in Figure 2. This indicates that crops are utilizing nitrates effectively, preventing any build-up of concentration that might cause nitrate to filter into local groundwater systems. The nitrate concentrations in surface samples (0.5 ft) of Nebeker Ranch soils were slightly higher than those of the background sample BG1. However, nitrate concentration deeper within Nebeker Ranch soils (at 1.5 and 3.5 ft) were reduced to levels similar to concentrations in BG1.

Another trend observed was the variation of sodium content with depth. As shown in Figure 3, sodium concentrations tend to increase with depth. The trend was strong in samples from Nebeker Ranch and from boring BG1.

This trend was not strictly followed in the BG2 samples, which were taken at a location to the northeast of Nebeker Ranch. Rather the samples from this boring showed stratification in agronomic parameters, indicating that the soil type is not uniform. The sodium concentrations here jumped from 420 mg/kg to 5,000 mg/kg and back to 2,700 mg/kg. This deviation from the trend is shown in Figure 3. This finding of chemical stratification fit our visual observations of the sample soil types. As shown in Table 1, samples taken from boring BG2 appeared quite distinct, varying from sandy silt at 0.5 ft, to some clay content and organic content at 1.5 ft, to silty sand with pebbles at 3.0 feet.

Figure 2: Nitrate Concentrations vs. Depth

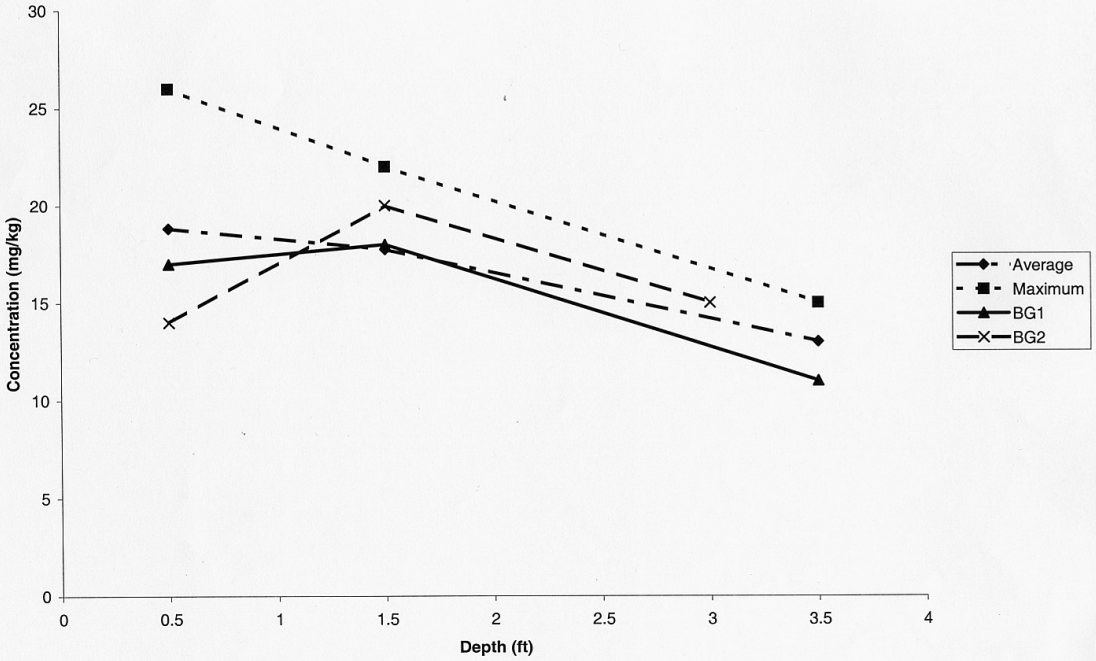
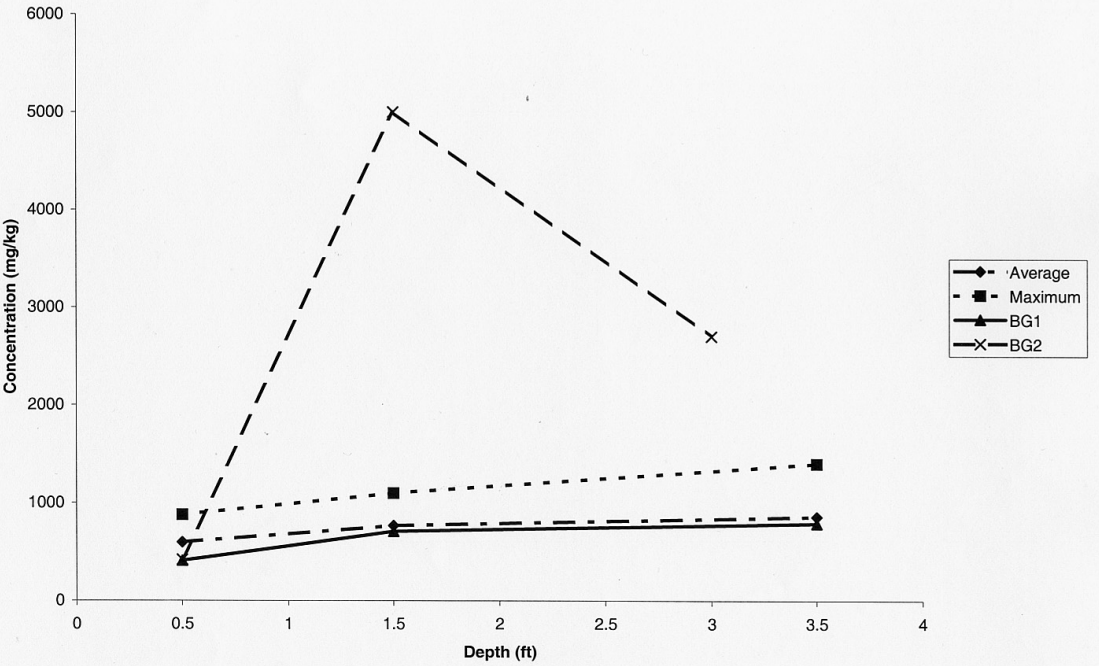


Figure 3: Sodium Concentrations v. Depth



A second distinction of the BG2 samples from Nebeker Ranch samples was its high sodium concentrations and conductivity. Total sodium concentrations at BG2 were 5,000 mg/kg and 2,700 mg/kg of sodium at 1.5 and 3.0 ft, respectively, while sodium concentrations at BG1 were 710 mg/kg and 790 mg/kg at 1.5 and 3.0 ft, respectively.

The finding of high sodium concentrations in boring BG2 fit with observations of the sample area and the soil. We were unable to bore deeper than 3.0 ft into the soil at the location of BG2. This indicates that our boring reached a shallow hardpan clay layer associated with the nearby Rosamond Dry Lake. We did not reach this clay layer in any of the samples taken at Nebeker Ranch, including a sample taken at 6.5 ft. Higher sodium concentrations, characteristic of dry lake soils, were therefore anticipated for the samples at BG2. The higher sodium concentrations also caused the conductivity of the samples to be elevated (BG2 maximum = 1,800 μmhos/cm compared to Nebeker Ranch maximum = 240 μmhos/cm).

The analysis of sodium concentrations for on-site and background samples also shows a relationship between geographic location and sodium concentration. Sodium concentration was slightly higher at Nebeker Ranch than at BG1 to the southwest, and sodium concentration at Nebeker Ranch was lower than at BG2 to the northeast. This trend suggests that sodium concentrations tend to increase with increasing proximity to Rosamond Dry Lake in the northeast.

Conclusions

Our data indicate that Nebeker Ranch soils contain similar levels of metals to background soils.

The analysis of nitrates indicated that nitrate levels were slightly elevated at the surface of Nebeker Ranch soils. However, nitrate concentrations dropped to background levels at depths of 1.5 and 3.5 feet.

The analysis of sodium concentrations indicates that sodium levels follow two trends. First, sodium levels increase with depth. Secondly, sodium levels increase with proximity to the Rosamond Dry Lake, northeast of Nebeker Ranch. At boring BG2, the sample location nearest to the Rosamond Dry Lake, a shallow harpan clay layer associated with the dry lake was observed at 3.0 ft. Although a clay layer was not reached in on-site sampling, the observation of trends in

sodium concentrations (with respect to both location and depth) suggests that the characteristics of the dry lake may extend to soils beneath Nebeker Ranch.

Nebeker Ranch Soil Sample Analysis – July 6, 2001

Summary

An analysis of soils at Nebeker Ranch was also performed on July 6, 2001. Sampling was done by Jack Craemer, and chemical analyses were performed by the Fruit Growers Laboratory, Inc.(FGL) Samples were taken at two depth ranges (0-12 inches and 13-36 inches) on four fields. Samples were analyzed for primary nutrients (nitrate-nitrogen, phosphorus, potassium), secondary nutrients (calcium, magnesium, sodium, sulfate), micro nutrients (zinc, manganese, iron, copper, boron, chloride), base saturation (calcium, magnesium, potassium, sodium, hydrogen), pH, soil salinity, sodium absorption ratio (SAR), limestone, lime, moisture, and saturation.

Results were compared to optimum nutrient ranges provided by the Fruit Growers Laboratory, Inc, based on research and experience. Concentrations of most chemicals fell within the optimum ranges. An analysis of nitrate-nitrogen indicated that concentrations were optimum near the surface (0-12 inches) and "low" to "very low" in deeper samples (13-36 inches). Soil salinity was found to be within optimum ranges. However, sodium absorption ratios in some samples were above ideal ranges.

Comparison with Sampling on September 18, 2001

Metal concentrations determined by sampling on September 18 were higher than those obtained in the July 6 analysis. These differences could be attributed to the use of different acid digestion techniques. The largest difference in concentration occurred in zinc analysis. Zinc concentrations determined on September 18 were up to two orders of magnitude higher than those determined in the July 6 sampling ($\max_{sept18} = 58$ ppm versus $\max_{jul6} = 0.6$ ppm). However, as mentioned previously, the metal concentrations determined by the September 18 analysis are all less than the maximum contaminant levels defined by Title 22.

Several of the nutrient concentrations of the September 18 samples, including potassium, sodium, magnesium, and calcium, were up to an order of magnitude higher than those found in the July 6 analysis. This discrepancy may arise from differences in acid digestion techniques. For example, Advanced Technology Laboratory analyzed the September 18 samples used a citrate digestion

and EPA method 7610 (atomic absorption) to analyze "total" potassium. Fruit Growers Laboratory, Inc. analyzed the July 6 samples using an ammonium acetate digestion and EPA method 6010 (inductively coupled argon plasma) to determine "exchangeable" potassium. Thus, potassium concentrations determined for July 6 samples are indicative of potassium that is potentially soluble, while concentrations determined for September 6 samples indicate total potassium. Differences in methods may explain the discrepancy in magnitudes for potassium, as well as sodium, magnesium, and calcium.

Nitrate concentrations were slightly higher for the September 18 samples than the July 6 samples. Again, this difference may be due to differences in analysis methods. Although the magnitudes of nitrate concentration differ slightly, the stratification of nitrate through different levels of the soil tended to be similar. Both sets of samples showed a trend of decreasing nitrogen with increasing depth.

ATTACHMENT A

September 27, 2001

Shelley Kunasek
Environmental Science Associates
4221 Wilshire Boulevard, Suite 480
Los Angeles, CA 90010
TEL: (323) 933-6111
FAX (323) 934-1289

ELAP No: 1838

RE: LACSD, 200481-Phase 7

Work Order No.: 053068

Attention: Shelley Kunasek

Enclosed are the results for sample(s) received on September 19, 2001 by Advanced Technology Laboratories and tested for the parameters indicated in the enclosed chain of custody.
Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (562)989-4045 if I can be of further assistance to your company.

Sincerely,

Edgar Caballero
Laboratory Director

This cover letter and a case narrative are an integral part of this analytical report.

Chain of Custody Record

Environmental Science Associates
4221 Wilshire Boulevard, Suite 480
Los Angeles, CA 90010
(323) 933-6111
www.esassoc.com

Project Number: 200481 - Phase 7
Project Name: LACSD
Site Name: Nebeker Ranch
Sample Collected By: TCB, JJH, SAK
Sample Date: 9/18/01

Sample I.D.	Field Sample Identification and Sampling Information			Analysis Required															
	Sample Type	Date	Time	Sodium (7100)	Nitrate (352.1)	Total Nitrogen (351.2)	Phosphate (365.2)	Potassium (7610)	Boron (6010)	CAM 17 Metals (7000 series)	TOC (415.1)	pH (150.1)	Conductivity (120.1)						
BG1-0.5	soil	9/18/01	2:00	X	X	X	X	X	X	X	X	X	X						
BG1-1.5			2:00	X	X	X	X	X	X	X	X	X	X						
BG1-3.5			2:00	X	X	X	X	X	X	X	X	X	X						
BG2-0.5			2:30	X	X	X	X	X	X	X	X	X	X						
BG2-1.5			2:30	X	X	X	X	X	X	X	X	X	X						
BG2-3.0			2:30	X	X	X	X	X	X	X	X	X	X						
B1-0.5			10:30	X	X	X	X	X	X	X	X	X	X						
B1-1.5			10:30	X	X	X	X	X	X	X	X	X	X						
B1-3.5			10:30	X	X	X	X	X	X	X	X	X	X						

Method of Shipment:

Samples Shipped to: ----------

Remarks:

Relinquished by: (Sign, Date & Print) 9/19/01 10:10
Shelley Kunasek, Shelley Kunasek
11:07

~~Relinquished~~ by: (Sign, Date & Print) Received
SAMI AJ 9/19/01 10:10
Sakphy Bun 9/19/01 11:09

Chain of Custody Record

Environmental Science Associates
4221 Wilshire Boulevard, Suite 480
Los Angeles, CA 90010
(323) 933-6111
www.esassoc.com

Project Number: 200481 - Phase 7	Sample Collected By: TCB, JJH, SAK
Project Name: LACSD	Sample Date: 9/18/01
Site Name: Nebeker Ranch	

Sample I.D.	Field Sample Identification and Sampling Information			Analysis Required														
	Sample Type	Date	Time	Sodium (7700)	Nitrate (352.1)	Total Nitrogen (351.2)	Phosphate (365.2)	Potassium (7610)	Boron (6010)	CAM 17 Metals (7000 series)	TOC (415.1)	pH (150.1)	Conductivity (120.1)					
B2-0.5	soil	9/18/01	10:45	X	X	X	X	X	X	X	X	X	X					
B2-1.5	↓	↓	10:45	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓					
B2-3.5			10:45															
B3-0.5			11:35															
B3-1.5			11:35															
B3-3.5			11:35															
B3-6.5			11:35															
B4-0.5			1:30															
B4-1.5			1:30															
B4-3.5	↓	↓	1:30	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓					

Method of Shipment

Samples Shipped to: ----------

Remarks

Relinquished by: (Sign, Date & Print)
Shelley Kmasek 9/19/01
SAME 11-99

~~Relinquished~~ by: (Sign, Date & Print) Received
SAME SBM 9-19-01 10:1
Sokphy Bun 9/19/01 11:09

Chain of Custody Record

Environmental Science Associates
4221 Wilshire Boulevard, Suite 480
Los Angeles, CA 90010
(323) 933-6111
www.esassoc.com

Project Number: 200481 - Phase 7
Project Name: LACSD
Site Name: Nebeker Ranch
Sample Collected By: TCB, JJH, SAK
Sample Date: 9/18/01

Sample I.D.	Field Sample Identification and Sampling Information			Analysis Required													
	Sample Type	Date	Time	Sodium (7700)	Nitrate (352.1)	Total Nitrogen (351.2)	Phosphate (365.2)	Potassium (7610)	Boron (6010)	CAM 17 Metals (7000 series)	TOC (415.1)	pH (150.1)	Conductivity (120.1)				
B5-0.5	soil	9/18/01	11:00	x	x	x	x	x	x	x	x	x	x				
B6-0.5	"	"	2:00	x	x	x	x	x	x	x	x	x	x				

Method of Shipment:

Samples Shipped to: ----------

Remarks: _____

Relinquished by: (Sign, Date & Print)
Shelley Kwasek 9/19/01
SAME TCB 11-09

~~Relinquished~~ Received by: (Sign, Date & Print)
~~SAME~~ SAMI AKUB 9-19-01
Stephanie Sotelo Bun 9/19/01

ESA Environmental Science Associates

FAX COVER SHEET

Original will follow via: ☐ Regular Mail ☐ Federal Express
Original will not follow ☐
Number of pages including this cover sheet: 2

To	•	Rachel
Company	•	Advanced Technology Laboratories
FAX Number	•	(562) 989-4045
Phone Number	•	(562) 989-4040
From	•	Shelley Kunasek
ESA Project	•	LACSD
Date	•	September 19, 2001
Comments	•	Rachel- The method numbers look fine. Please go ahead with the analysis. Thanks. -Shelley

4221 Wilshire Boulevard, Suite 480 Los Angeles, California 90010 (323) 933-6111 *fax* 934-1289 email: esa.la@esassoc.com

Advanced Technology
Laboratories

3275 Walnut Avenue
Signal Hill CA 90807
(562) 989-4045 Phone
(562) 989-4040 Fax

Fax Transmittal Sheet

To: Shelley
From: Rachelle
RE: LACSD, 200481-Phase 7

Message:

Per our phone conversation, the following are the analytical methods that I suggested for your project:
EPA 7700 (Sodium)
EPA 300.0 (Nitrate)
Total Nitrogen (calculated results of EPA 300 NO3,EPA NO2 & EPA 351.3 TKN)
EPA 300.0 (Phosphate)
EPA 7610 (Potassium)
EPA 6010 (Boron)
CAM 17 Metals (EPA 6010 & EPA 7471)
EPA 9060 (TOC)
EPA 9045 (pH)
EPA 120.1 (Conductivity)
Let me know if this would work for you.
Thank you very much for your business and we are looking forward to being of service to you.

OK

CLIENT: Environmental Science Associates
Project: LACSD, 200481-Phase 7
Lab Order: 053068

CASE NARRATIVE

Samples for Total Kjeldahl Nitrogen (TKN-351.3) were subcontracted to AETL with DOHS Cert. #1541.

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT: Environmental Science Associates
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Lab ID: 053068-001A

Client Sample ID: BG1-0.5
Collection Date: 9/18/01 2:00:00 PM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SPECIFIC CONDUCTANCE			**EPA 120.1**			
RunID: **WETCHEM_010920** BatchID: **R11927**				PrepDate: **9/20/01**		Analyst: **CA**
Specific Conductance	93	0.10		µmhos/cm	1.0	9/20/01
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Nitrogen, Nitrate (As N)	17	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.41	0.25		mg/Kg	1.0	9/21/01
Arsenic	12	0.25		mg/Kg	1.0	9/21/01
Barium	74	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	15	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Chromium	17	0.15		mg/Kg	1.0	9/21/01
Cobalt	8.0	0.15		mg/Kg	1.0	9/21/01
Copper	16	0.15		mg/Kg	1.0	9/21/01
Lead	7.5	0.25		mg/Kg	1.0	9/21/01
Molybdenum	0.41	0.25		mg/Kg	1.0	9/21/01
Nickel	13	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	27	0.15		mg/Kg	1.0	9/21/01
Zinc	70	0.50		mg/Kg	1.0	9/21/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010924E** BatchID: **5830**				PrepDate: **9/21/01**		Analyst: **NS**
Mercury	0.20	0.10		mg/Kg	1.0	9/24/01
POTASSIUM BY ATOMIC ABSORPTION			**EPA 7610**			
RunID: **AA2_010924D** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Potassium	5600	800		mg/Kg	8.0	9/24/01

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories *3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040*

Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	BG1-0.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 2:00:00 PM
Lab ID:	053068-001A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SODIUM BY ATOMIC ABSORPTION				**EPA 7770**		
RunID: **AA2_010924F** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Sodium	410	100		mg/Kg	1.0	9/24/01
PH				**EPA 9045C**		
RunID: **WETCHEM_010925** BatchID: **R12004**				PrepDate: **9/25/01**		Analyst: **CA**
pH	7.84	0.10		pH Units	1.0	9/25/01
TOTAL ORGANIC CARBON				**EPA 9060**		
RunID: **TOC1_010921A** BatchID: **R11960**				PrepDate: **9/21/01**		Analyst: **OL**
Total Organic Carbon	620	30		mg/Kg	1.0	9/21/01

Qualifiers:

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H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: JA

Advanced Technology Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT: Environmental Science Associates
Client Sample ID: BG1-1.5
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Collection Date: 9/18/01 2:00:00 PM
Lab ID: 053068-002A
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SPECIFIC CONDUCTANCE			**EPA 120.1**			
RunID: **WETCHEM_010920** BatchID: **R11927**				PrepDate: **9/20/01**		Analyst: **CA**
Specific Conductance	120	0.10		µmhos/cm	1.0	9/20/01
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Nitrogen, Nitrate (As N)	18	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.28	0.25		mg/Kg	1.0	9/21/01
Arsenic	10	0.25		mg/Kg	1.0	9/21/01
Barium	57	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	14	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Chromium	10	0.15		mg/Kg	1.0	9/21/01
Cobalt	6.0	0.15		mg/Kg	1.0	9/21/01
Copper	10	0.15		mg/Kg	1.0	9/21/01
Lead	3.5	0.25		mg/Kg	1.0	9/21/01
Molybdenum	ND	0.25		mg/Kg	1.0	9/21/01
Nickel	7.5	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	20	0.15		mg/Kg	1.0	9/21/01
Zinc	44	0.50		mg/Kg	1.0	9/21/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010924E** BatchID: **5830**				PrepDate: **9/21/01**		Analyst: **NS**
Mercury	0.23	0.10		mg/Kg	1.0	9/24/01
POTASSIUM BY ATOMIC ABSORPTION			**EPA 7610**			
RunID: **AA2_010924D** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Potassium	3500	400		mg/Kg	4.0	9/24/01

Qualifiers:
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H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: JA

Advanced Technology Laboratories *3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040*

Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	BG1-1.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 2:00:00 PM
Lab ID:	053068-002A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SODIUM BY ATOMIC ABSORPTION			**EPA 7770**			
RunID: **AA2_010924F** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Sodium	710	100		mg/Kg	1.0	9/24/01
PH			**EPA 9045C**			
RunID: **WETCHEM_010925** BatchID: **R12004**				PrepDate: **9/25/01**		Analyst: **CA**
pH	8.92	0.10		pH Units	1.0	9/25/01
TOTAL ORGANIC CARBON			**EPA 9060**			
RunID: **TOC1_010921A** BatchID: **R11960**				PrepDate: **9/21/01**		Analyst: **OL**
Total Organic Carbon	800	30		mg/Kg	1.0	9/21/01

Qualifiers:

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Initials: \JA

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT: Environmental Science Associates
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Lab ID: 053068-003A

Client Sample ID: BG1-3.5
Collection Date: 9/18/01 2:00:00 PM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SPECIFIC CONDUCTANCE			**EPA 120.1**			
RunID: **WETCHEM_010920** BatchID: **R11927**				PrepDate: **9/20/01**		Analyst: **CA**
Specific Conductance	140	0.10		µmhos/cm	1.0	9/20/01
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Nitrogen, Nitrate (As N)	11	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.38	0.25		mg/Kg	1.0	9/21/01
Arsenic	8.5	0.25		mg/Kg	1.0	9/21/01
Barium	48	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	6.0	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Chromium	10	0.15		mg/Kg	1.0	9/21/01
Cobalt	4.5	0.15		mg/Kg	1.0	9/21/01
Copper	4.0	0.15		mg/Kg	1.0	9/21/01
Lead	2.5	0.25		mg/Kg	1.0	9/21/01
Molybdenum	0.30	0.25		mg/Kg	1.0	9/21/01
Nickel	6.5	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	14	0.15		mg/Kg	1.0	9/21/01
Zinc	34	0.50		mg/Kg	1.0	9/21/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010924E** BatchID: **5830**				PrepDate: **9/21/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/24/01
POTASSIUM BY ATOMIC ABSORPTION			**EPA 7610**			
RunID: **AA2_010924D** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Potassium	2200	400		mg/Kg	4.0	9/24/01

Qualifiers:
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DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
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E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: JA

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	BG1-3.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 2:00:00 PM
Lab ID:	053068-003A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SODIUM BY ATOMIC ABSORPTION				**EPA 7770**		
RunID: **AA2_010924F** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Sodium	790	100		mg/Kg	1.0	9/24/01
PH				**EPA 9045C**		
RunID: **WETCHEM_010925** BatchID: **R12004**				PrepDate: **9/25/01**		Analyst: **CA**
pH	9.59	0.10		pH Units	1.0	9/25/01
TOTAL ORGANIC CARBON				**EPA 9060**		
RunID: **TOC1_010921A** BatchID: **R11960**				PrepDate: **9/21/01**		Analyst: **OL**
Total Organic Carbon	2600	30		mg/Kg	1.0	9/21/01

Qualifiers:

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DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: JA

Advanced Technology Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT: Environmental Science Associates
Client Sample ID: BG2-0.5
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Collection Date: 9/18/01 2:30:00 PM
Lab ID: 053068-004A
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SPECIFIC CONDUCTANCE			**EPA 120.1**			
RunID: **WETCHEM_010920** BatchID: **R11927**				PrepDate: **9/20/01**		Analyst: **CA**
Specific Conductance	58	0.10		µmhos/cm	1.0	9/20/01
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Nitrogen, Nitrate (As N)	14	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.34	0.25		mg/Kg	1.0	9/21/01
Arsenic	6.0	0.25		mg/Kg	1.0	9/21/01
Barium	36	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	5.0	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Chromium	14	0.15		mg/Kg	1.0	9/21/01
Cobalt	5.0	0.15		mg/Kg	1.0	9/21/01
Copper	8.0	0.15		mg/Kg	1.0	9/21/01
Lead	2.5	0.25		mg/Kg	1.0	9/21/01
Molybdenum	0.30	0.25		mg/Kg	1.0	9/21/01
Nickel	12	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	16	0.15		mg/Kg	1.0	9/21/01
Zinc	31	0.50		mg/Kg	1.0	9/21/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010924E** BatchID: **5830**				PrepDate: **9/21/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/24/01
POTASSIUM BY ATOMIC ABSORPTION			**EPA 7610**			
RunID: **AA2_010924D** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Potassium	1800	300		mg/Kg	3.0	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit
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E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: JA

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	BG2-0.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 2:30:00 PM
Lab ID:	053068-004A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SODIUM BY ATOMIC ABSORPTION				**EPA 7770**		
RunID: **AA2_010924F** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Sodium	420	100		mg/Kg	1.0	9/24/01
PH				**EPA 9045C**		
RunID: **WETCHEM_010925** BatchID: **R12004**				PrepDate: **9/25/01**		Analyst: **CA**
pH	8.36	0.10		pH Units	1.0	9/25/01
TOTAL ORGANIC CARBON				**EPA 9060**		
RunID: **TOC1_010921A** BatchID: **R11960**				PrepDate: **9/21/01**		Analyst: **OL**
Total Organic Carbon	150	30		mg/Kg	1.0	9/21/01

Qualifiers:

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J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: JA

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT: Environmental Science Associates
Client Sample ID: BG2-1.5
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Collection Date: 9/18/01 2:30:00 PM
Lab ID: 053068-005A
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SPECIFIC CONDUCTANCE			**EPA 120.1**			
RunID: **WETCHEM_010920** BatchID: **R11927**				PrepDate: **9/20/01**		Analyst: **CA**
Specific Conductance	1800	0.10		µmhos/cm	1.0	9/20/01
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Nitrogen, Nitrate (As N)	20	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.43	0.25		mg/Kg	1.0	9/21/01
Arsenic	18	0.25		mg/Kg	1.0	9/21/01
Barium	48	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	57	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Chromium	22	0.15		mg/Kg	1.0	9/21/01
Cobalt	9.0	0.15		mg/Kg	1.0	9/21/01
Copper	19	0.15		mg/Kg	1.0	9/21/01
Lead	8.0	0.25		mg/Kg	1.0	9/21/01
Molybdenum	0.50	0.25		mg/Kg	1.0	9/21/01
Nickel	16	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	34	0.15		mg/Kg	1.0	9/21/01
Zinc	72	0.50		mg/Kg	1.0	9/21/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010924E** BatchID: **5830**				PrepDate: **9/21/01**		Analyst: **NS**
Mercury	0.14	0.10		mg/Kg	1.0	9/24/01
POTASSIUM BY ATOMIC ABSORPTION			**EPA 7610**			
RunID: **AA2_010924D** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Potassium	5900	1100		mg/Kg	11	9/24/01

Qualifiers:
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H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: JA

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	BG2-1.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 2:30:00 PM
Lab ID:	053068-005A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SODIUM BY ATOMIC ABSORPTION				**EPA 7770**		
RunID: **AA2_010924F** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Sodium	5000	100		mg/Kg	1.0	9/24/01
PH				**EPA 9045C**		
RunID: **WETCHEM_010925** BatchID: **R12004**				PrepDate: **9/25/01**		Analyst: **CA**
pH	9.79	0.10		pH Units	1.0	9/25/01
TOTAL ORGANIC CARBON				**EPA 9060**		
RunID: **TOC1_010921A** BatchID: **R11960**				PrepDate: **9/21/01**		Analyst: **OL**
Total Organic Carbon	1900	30		mg/Kg	1.0	9/21/01

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H - Samples exceeding analytical holding time

E - Value above quantitation range

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Initials: JA

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Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT: Environmental Science Associates
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Lab ID: 053068-006A

Client Sample ID: BG2-3.0
Collection Date: 9/18/01 2:30:00 PM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SPECIFIC CONDUCTANCE			**EPA 120.1**			
RunID: **WETCHEM_010920** BatchID: **R11927**				PrepDate: **9/20/01**		Analyst: **CA**
Specific Conductance	1500	0.10		µmhos/cm	1.0	9/20/01
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Nitrogen, Nitrate (As N)	15	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.46	0.25		mg/Kg	1.0	9/21/01
Arsenic	22	0.25		mg/Kg	1.0	9/21/01
Barium	45	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	18	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Chromium	11	0.15		mg/Kg	1.0	9/21/01
Cobalt	5.5	0.15		mg/Kg	1.0	9/21/01
Copper	7.5	0.15		mg/Kg	1.0	9/21/01
Lead	3.5	0.25		mg/Kg	1.0	9/21/01
Molybdenum	0.38	0.25		mg/Kg	1.0	9/21/01
Nickel	8.5	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	36	0.15		mg/Kg	1.0	9/21/01
Zinc	36	0.50		mg/Kg	1.0	9/21/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010924E** BatchID: **5830**				PrepDate: **9/21/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/24/01
POTASSIUM BY ATOMIC ABSORPTION			**EPA 7610**			
RunID: **AA2_010924D** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Potassium	2200	400		mg/Kg	4.0	9/24/01

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Initials: JA

Advanced Technology Laboratories *3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040*

Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	BG2-3.0
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 2:30:00 PM
Lab ID:	053068-006A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SODIUM BY ATOMIC ABSORPTION				**EPA 7770**		
RunID: **AA2_010924F** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Sodium	2700	100		mg/Kg	1.0	9/24/01
PH				**EPA 9045C**		
RunID: **WETCHEM_010925** BatchID: **R12004**				PrepDate: **9/25/01**		Analyst: **CA**
pH	9.74	0.10		pH Units	1.0	9/25/01
TOTAL ORGANIC CARBON				**EPA 9060**		
RunID: **TOC1_010921A** BatchID: **R11960**				PrepDate: **9/21/01**		Analyst: **OL**
Total Organic Carbon	690	30		mg/Kg	1.0	9/21/01

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Initials: JA

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Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT: Environmental Science Associates
Client Sample ID: B1-0.5
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Collection Date: 9/18/01 10:30:00 AM
Lab ID: 053068-007A
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SPECIFIC CONDUCTANCE			**EPA 120.1**			
RunID: **WETCHEM_010920** BatchID: **R11927**				PrepDate: **9/20/01**		Analyst: **CA**
Specific Conductance	120	0.10		µmhos/cm	1.0	9/20/01
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Nitrogen, Nitrate (As N)	26	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.34	0.25		mg/Kg	1.0	9/21/01
Arsenic	10	0.25		mg/Kg	1.0	9/21/01
Barium	52	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	13	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Chromium	15	0.15		mg/Kg	1.0	9/21/01
Cobalt	7.5	0.15		mg/Kg	1.0	9/21/01
Copper	12	0.15		mg/Kg	1.0	9/21/01
Lead	5.5	0.25		mg/Kg	1.0	9/21/01
Molybdenum	0.34	0.25		mg/Kg	1.0	9/21/01
Nickel	12	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	26	0.15		mg/Kg	1.0	9/21/01
Zinc	52	0.50		mg/Kg	1.0	9/21/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010924E** BatchID: **5830**				PrepDate: **9/21/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/24/01
POTASSIUM BY ATOMIC ABSORPTION			**EPA 7610**			
RunID: **AA2_010924D** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Potassium	3800	400		mg/Kg	4.0	9/24/01

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Initials: JA

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Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	B1-0.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 10:30:00 AM
Lab ID:	053068-007A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SODIUM BY ATOMIC ABSORPTION				**EPA 7770**		
RunID: **AA2_010924F** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Sodium	620	100		mg/Kg	1.0	9/24/01
PH				**EPA 9045C**		
RunID: **WETCHEM_010925** BatchID: **R12004**				PrepDate: **9/25/01**		Analyst: **CA**
pH	8.82	0.10		pH Units	1.0	9/25/01
TOTAL ORGANIC CARBON				**EPA 9060**		
RunID: **TOC1_010921A** BatchID: **R11960**				PrepDate: **9/21/01**		Analyst: **OL**
Total Organic Carbon	1000	30		mg/Kg	1.0	9/21/01

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Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	B1-1.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 10:30:00 AM
Lab ID:	053068-008A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SPECIFIC CONDUCTANCE			**EPA 120.1**			
RunID: **WETCHEM_010920** BatchID: **R11927**				PrepDate: **9/20/01**		Analyst: **CA**
Specific Conductance	210	0.10		µmhos/cm	1.0	9/20/01
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Nitrogen, Nitrate (As N)	15	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.48	0.25		mg/Kg	1.0	9/21/01
Arsenic	13	0.25		mg/Kg	1.0	9/21/01
Barium	52	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	10	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Chromium	10	0.15		mg/Kg	1.0	9/21/01
Cobalt	5.5	0.15		mg/Kg	1.0	9/21/01
Copper	9.0	0.15		mg/Kg	1.0	9/21/01
Lead	3.5	0.25		mg/Kg	1.0	9/21/01
Molybdenum	0.27	0.25		mg/Kg	1.0	9/21/01
Nickel	7.5	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	27	0.15		mg/Kg	1.0	9/21/01
Zinc	37	0.50		mg/Kg	1.0	9/21/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010924E** BatchID: **5830**				PrepDate: **9/21/01**		Analyst: **NS**
Mercury	0.13	0.10		mg/Kg	1.0	9/24/01
POTASSIUM BY ATOMIC ABSORPTION			**EPA 7610**			
RunID: **AA2_010924D** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Potassium	2500	400		mg/Kg	4.0	9/24/01

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Initials: JA

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	B1-1.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 10:30:00 AM
Lab ID:	053068-008A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SODIUM BY ATOMIC ABSORPTION			**EPA 7770**			
RunID: **AA2_010924F** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Sodium	1100	100		mg/Kg	1.0	9/24/01
PH			**EPA 9045C**			
RunID: **WETCHEM_010925** BatchID: **R12004**				PrepDate: **9/25/01**		Analyst: **CA**
pH	9.23	0.10		pH Units	1.0	9/25/01
TOTAL ORGANIC CARBON			**EPA 9060**			
RunID: **TOC1_010921A** BatchID: **R11960**				PrepDate: **9/21/01**		Analyst: **OL**
Total Organic Carbon	830	30		mg/Kg	1.0	9/21/01

Qualifiers:

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E - Value above quantitation range

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Initials: JA

Advanced Technology Laboratories *3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040*

Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT: Environmental Science Associates
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Lab ID: 053068-009A

Client Sample ID: B1-3.5
Collection Date: 9/18/01 10:30:00 AM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SPECIFIC CONDUCTANCE			**EPA 120.1**			
RunID: **WETCHEM_010920** BatchID: **R11927**				PrepDate: **9/20/01**		Analyst: **CA**
Specific Conductance	160	0.10		µmhos/cm	1.0	9/20/01
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Nitrogen, Nitrate (As N)	13	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	ND	0.25		mg/Kg	1.0	9/21/01
Arsenic	18	0.25		mg/Kg	1.0	9/21/01
Barium	64	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	7.0	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Chromium	12	0.15		mg/Kg	1.0	9/21/01
Cobalt	7.5	0.15		mg/Kg	1.0	9/21/01
Copper	8.5	0.15		mg/Kg	1.0	9/21/01
Lead	4.0	0.25		mg/Kg	1.0	9/21/01
Molybdenum	0.38	0.25		mg/Kg	1.0	9/21/01
Nickel	9.0	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	36	0.15		mg/Kg	1.0	9/21/01
Zinc	50	0.50		mg/Kg	1.0	9/21/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010924E** BatchID: **5830**				PrepDate: **9/21/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/24/01
POTASSIUM BY ATOMIC ABSORPTION			**EPA 7610**			
RunID: **AA2_010924D** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Potassium	3300	400		mg/Kg	4.0	9/24/01

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DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
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E - Value above quantitation range
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Initials: JA

Advanced Technology Laboratories *3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040*

Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	B1-3.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 10:30:00 AM
Lab ID:	053068-009A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SODIUM BY ATOMIC ABSORPTION			**EPA 7770**			
RunID: **AA2_010924F** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Sodium	750	100		mg/Kg	1.0	9/24/01
PH			**EPA 9045C**			
RunID: **WETCHEM_010925** BatchID: **R12004**				PrepDate: **9/25/01**		Analyst: **CA**
pH	9.06	0.10		pH Units	1.0	9/25/01
TOTAL ORGANIC CARBON			**EPA 9060**			
RunID: **TOC1_010921A** BatchID: **R11960**				PrepDate: **9/21/01**		Analyst: **OL**
Total Organic Carbon	140	30		mg/Kg	1.0	9/21/01

Qualifiers:

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S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: JA

Advanced Technology Laboratories *3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040*

Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT: Environmental Science Associates
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Lab ID: 053068-010A

Client Sample ID: B2-0.5
Collection Date: 9/18/01 10:45:00 AM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SPECIFIC CONDUCTANCE			**EPA 120.1**			
RunID: **WETCHEM_010920** BatchID: **R11927**				PrepDate: **9/20/01**		Analyst: **CA**
Specific Conductance	120	0.10		µmhos/cm	1.0	9/20/01
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Nitrogen, Nitrate (As N)	24	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.34	0.25		mg/Kg	1.0	9/21/01
Arsenic	9.0	0.25		mg/Kg	1.0	9/21/01
Barium	47	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	12	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Chromium	16	0.15		mg/Kg	1.0	9/21/01
Cobalt	6.5	0.15		mg/Kg	1.0	9/21/01
Copper	12	0.15		mg/Kg	1.0	9/21/01
Lead	5.0	0.25		mg/Kg	1.0	9/21/01
Molybdenum	ND	0.25		mg/Kg	1.0	9/21/01
Nickel	10	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	24	0.15		mg/Kg	1.0	9/21/01
Zinc	53	0.50		mg/Kg	1.0	9/21/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010924E** BatchID: **5830**				PrepDate: **9/21/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/24/01
POTASSIUM BY ATOMIC ABSORPTION			**EPA 7610**			
RunID: **AA2_010924D** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Potassium	3400	400		mg/Kg	4.0	9/24/01

Qualifiers:
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Initials: JA

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Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	B2-0.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 10:45:00 AM
Lab ID:	053068-010A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SODIUM BY ATOMIC ABSORPTION				**EPA 7770**		
RunID: **AA2_010924F** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Sodium	660	100		mg/Kg	1.0	9/24/01
PH				**EPA 9045C**		
RunID: **WETCHEM_010925** BatchID: **R12004**				PrepDate: **9/25/01**		Analyst: **CA**
pH	8.00	0.10		pH Units	1.0	9/25/01
TOTAL ORGANIC CARBON				**EPA 9060**		
RunID: **TOC1_010921A** BatchID: **R11960**				PrepDate: **9/21/01**		Analyst: **OL**
Total Organic Carbon	700	30		mg/Kg	1.0	9/21/01

Qualifiers:

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H - Samples exceeding analytical holding time
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Initials: JA

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT: Environmental Science Associates
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Lab ID: 053068-011A

Client Sample ID: B2-1.5
Collection Date: 9/18/01 10:45:00 AM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SPECIFIC CONDUCTANCE			**EPA 120.1**			
RunID: **WETCHEM_010920** BatchID: **R11928**				PrepDate: **9/20/01**		Analyst: **CA**
Specific Conductance	140	0.10		µmhos/cm	1.0	9/20/01
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Nitrogen, Nitrate (As N)	22	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.50	0.25		mg/Kg	1.0	9/21/01
Arsenic	12	0.25		mg/Kg	1.0	9/21/01
Barium	62	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	12	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Chromium	20	0.15		mg/Kg	1.0	9/21/01
Cobalt	8.0	0.15		mg/Kg	1.0	9/21/01
Copper	14	0.15		mg/Kg	1.0	9/21/01
Lead	7.0	0.25		mg/Kg	1.0	9/21/01
Molybdenum	0.32	0.25		mg/Kg	1.0	9/21/01
Nickel	15	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	30	0.15		mg/Kg	1.0	9/21/01
Zinc	56	0.50		mg/Kg	1.0	9/21/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010924E** BatchID: **5830**				PrepDate: **9/21/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/24/01
POTASSIUM BY ATOMIC ABSORPTION			**EPA 7610**			
RunID: **AA2_010924D** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Potassium	2100	400		mg/Kg	4.0	9/24/01

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Initials: JA

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Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	B2-1.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 10:45:00 AM
Lab ID:	053068-011A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SODIUM BY ATOMIC ABSORPTION				**EPA 7770**		
RunID: **AA2_010924F** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Sodium	690	100		mg/Kg	1.0	9/24/01
PH				**EPA 9045C**		
RunID: **WETCHEM_010925** BatchID: **R12005**				PrepDate: **9/25/01**		Analyst: **CA**
pH	7.92	0.10		pH Units	1.0	9/25/01
TOTAL ORGANIC CARBON				**EPA 9060**		
RunID: **TOC1_010921A** BatchID: **R11960**				PrepDate: **9/21/01**		Analyst: **OL**
Total Organic Carbon	490	30		mg/Kg	1.0	9/21/01

Qualifiers:

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Print Date: *9/27/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	B2-3.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 10:45:00 AM
Lab ID:	053068-012A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SPECIFIC CONDUCTANCE			**EPA 120.1**			
RunID: **WETCHEM_010920** BatchID: **R11928**				PrepDate: **9/20/01**		Analyst: **CA**
Specific Conductance	140	0.10		µmhos/cm	1.0	9/20/01
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Nitrogen, Nitrate (As N)	15	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.39	0.25		mg/Kg	1.0	9/21/01
Arsenic	18	0.25		mg/Kg	1.0	9/21/01
Barium	86	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	10	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Chromium	15	0.15		mg/Kg	1.0	9/21/01
Cobalt	8.0	0.15		mg/Kg	1.0	9/21/01
Copper	10	0.15		mg/Kg	1.0	9/21/01
Lead	5.0	0.25		mg/Kg	1.0	9/21/01
Molybdenum	0.50	0.25		mg/Kg	1.0	9/21/01
Nickel	11	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	32	0.15		mg/Kg	1.0	9/21/01
Zinc	53	0.50		mg/Kg	1.0	9/21/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010924E** BatchID: **5830**				PrepDate: **9/21/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/24/01
POTASSIUM BY ATOMIC ABSORPTION			**EPA 7610**			
RunID: **AA2_010924D** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Potassium	1600	300		mg/Kg	3.0	9/24/01

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Initials: JA

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Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	B2-3.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 10:45:00 AM
Lab ID:	053068-012A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SODIUM BY ATOMIC ABSORPTION			**EPA 7770**			
RunID: **AA2_010924F** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Sodium	1400	100		mg/Kg	1.0	9/24/01
PH			**EPA 9045C**			
RunID: **WETCHEM_010925** BatchID: **R12005**				PrepDate: **9/25/01**		Analyst: **CA**
pH	8.53	0.10		pH Units	1.0	9/25/01
TOTAL ORGANIC CARBON			**EPA 9060**			
RunID: **TOC1_010921A** BatchID: **R11960**				PrepDate: **9/21/01**		Analyst: **OL**
Total Organic Carbon	1400	30		mg/Kg	1.0	9/21/01

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DO - Surrogate Diluted Out

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H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: JA

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Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT: Environmental Science Associates
Client Sample ID: B3-0.5
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Collection Date: 9/18/01 11:35:00 AM
Lab ID: 053068-013A
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SPECIFIC CONDUCTANCE			**EPA 120.1**			
RunID: **WETCHEM_010920** BatchID: **R11928**				PrepDate: **9/20/01**		Analyst: **CA**
Specific Conductance	110	0.10		µmhos/cm	1.0	9/20/01
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Nitrogen, Nitrate (As N)	17	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.31	0.25		mg/Kg	1.0	9/21/01
Arsenic	9.0	0.25		mg/Kg	1.0	9/21/01
Barium	37	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	7.5	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Chromium	9.5	0.15		mg/Kg	1.0	9/21/01
Cobalt	5.0	0.15		mg/Kg	1.0	9/21/01
Copper	7.0	0.15		mg/Kg	1.0	9/21/01
Lead	3.5	0.25		mg/Kg	1.0	9/21/01
Molybdenum	0.29	0.25		mg/Kg	1.0	9/21/01
Nickel	7.0	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	20	0.15		mg/Kg	1.0	9/21/01
Zinc	36	0.50		mg/Kg	1.0	9/21/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010924E** BatchID: **5830**				PrepDate: **9/21/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/24/01
POTASSIUM BY ATOMIC ABSORPTION			**EPA 7610**			
RunID: **AA2_010924D** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Potassium	2500	400		mg/Kg	4.0	9/24/01

Qualifiers:
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Initials: JA

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Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	B3-0.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 11:35:00 AM
Lab ID:	053068-013A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SODIUM BY ATOMIC ABSORPTION			**EPA 7770**			
RunID: **AA2_010924F** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Sodium	550	100		mg/Kg	1.0	9/24/01
PH			**EPA 9045C**			
RunID: **WETCHEM_010925** BatchID: **R12005**				PrepDate: **9/25/01**		Analyst: **CA**
pH	8.65	0.10		pH Units	1.0	9/25/01
TOTAL ORGANIC CARBON			**EPA 9060**			
RunID: **TOC1_010921A** BatchID: **R11960**				PrepDate: **9/21/01**		Analyst: **OL**
Total Organic Carbon	370	30		mg/Kg	1.0	9/21/01

Qualifiers:

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DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
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Initials: JM

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Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	B3-1.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 11:35:00 AM
Lab ID:	053068-014A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SPECIFIC CONDUCTANCE			**EPA 120.1**			
RunID: **WETCHEM_010920** BatchID: **R11928**				PrepDate: **9/20/01**		Analyst: **CA**
Specific Conductance	110	0.10		µmhos/cm	1.0	9/20/01
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Nitrogen, Nitrate (As N)	12	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.35	0.25		mg/Kg	1.0	9/21/01
Arsenic	12	0.25		mg/Kg	1.0	9/21/01
Barium	42	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	8.0	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Chromium	13	0.15		mg/Kg	1.0	9/21/01
Cobalt	7.0	0.15		mg/Kg	1.0	9/21/01
Copper	6.5	0.15		mg/Kg	1.0	9/21/01
Lead	3.5	0.25		mg/Kg	1.0	9/21/01
Molybdenum	0.50	0.25		mg/Kg	1.0	9/21/01
Nickel	9.5	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	28	0.15		mg/Kg	1.0	9/21/01
Zinc	46	0.50		mg/Kg	1.0	9/21/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010924E** BatchID: **5830**				PrepDate: **9/21/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/24/01
POTASSIUM BY ATOMIC ABSORPTION			**EPA 7610**			
RunID: **AA2_010924D** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Potassium	2600	400		mg/Kg	4.0	9/24/01

Qualifiers:

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DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: JA

Advanced Technology Laboratories *3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040*

Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT: Environmental Science Associates
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Lab ID: 053068-014A

Client Sample ID: B3-1.5
Collection Date: 9/18/01 11:35:00 AM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SODIUM BY ATOMIC ABSORPTION				**EPA 7770**		
RunID: **AA2_010924F** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Sodium	660	100		mg/Kg	1.0	9/24/01
PH				**EPA 9045C**		
RunID: **WETCHEM_010925** BatchID: **R12005**				PrepDate: **9/25/01**		Analyst: **CA**
pH	8.93	0.10		pH Units	1.0	9/25/01
TOTAL ORGANIC CARBON				**EPA 9060**		
RunID: **TOC1_010921A** BatchID: **R11960**				PrepDate: **9/21/01**		Analyst: **OL**
Total Organic Carbon	95	30		mg/Kg	1.0	9/21/01

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Initials: JA

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Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT: Environmental Science Associates
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Lab ID: 053068-015A

Client Sample ID: B3-3.5
Collection Date: 9/18/01 11:35:00 AM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SPECIFIC CONDUCTANCE			**EPA 120.1**			
RunID: **WETCHEM_010920** BatchID: **R11928**				PrepDate: **9/20/01**		Analyst: **CA**
Specific Conductance	180	0.10		µmhos/cm	1.0	9/20/01
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Nitrogen, Nitrate (As N)	12	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	ND	0.25		mg/Kg	1.0	9/21/01
Arsenic	14	0.25		mg/Kg	1.0	9/21/01
Barium	53	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	8.5	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Chromium	13	0.15		mg/Kg	1.0	9/21/01
Cobalt	6.0	0.15		mg/Kg	1.0	9/21/01
Copper	9.0	0.15		mg/Kg	1.0	9/21/01
Lead	3.5	0.25		mg/Kg	1.0	9/21/01
Molybdenum	0.50	0.25		mg/Kg	1.0	9/21/01
Nickel	10	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	25	0.15		mg/Kg	1.0	9/21/01
Zinc	42	0.50		mg/Kg	1.0	9/21/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010924E** BatchID: **5830**				PrepDate: **9/21/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/24/01
POTASSIUM BY ATOMIC ABSORPTION			**EPA 7610**			
RunID: **AA2_010924D** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Potassium	1800	300		mg/Kg	3.0	9/24/01

Qualifiers:
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H - Samples exceeding analytical holding time
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Initials: JA

Advanced Technology Laboratories *3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040*

Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	B3-3.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 11:35:00 AM
Lab ID:	053068-015A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SODIUM BY ATOMIC ABSORPTION				**EPA 7770**		
RunID: **AA2_010924F** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Sodium	840	100		mg/Kg	1.0	9/24/01
PH				**EPA 9045C**		
RunID: **WETCHEM_010925** BatchID: **R12005**				PrepDate: **9/25/01**		Analyst: **CA**
pH	9.15	0.10		pH Units	1.0	9/25/01
TOTAL ORGANIC CARBON				**EPA 9060**		
RunID: **TOC1_010921A** BatchID: **R11960**				PrepDate: **9/21/01**		Analyst: **OL**
Total Organic Carbon	88	30		mg/Kg	1.0	9/21/01

Qualifiers:

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H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: JA

Advanced Technology Laboratories

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Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT: Environmental Science Associates
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Lab ID: 053068-016A

Client Sample ID: B3-6.5
Collection Date: 9/18/01 11:35:00 AM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SPECIFIC CONDUCTANCE			**EPA 120.1**			
RunID: **WETCHEM_010920** BatchID: **R11928**				PrepDate: **9/20/01**		Analyst: **CA**
Specific Conductance	140	0.10		µmhos/cm	1.0	9/20/01
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Nitrogen, Nitrate (As N)	13	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	ND	0.25		mg/Kg	1.0	9/21/01
Arsenic	6.5	0.25		mg/Kg	1.0	9/21/01
Barium	48	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	3.5	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Chromium	6.0	0.15		mg/Kg	1.0	9/21/01
Cobalt	3.0	0.15		mg/Kg	1.0	9/21/01
Copper	4.0	0.15		mg/Kg	1.0	9/21/01
Lead	2.0	0.25		mg/Kg	1.0	9/21/01
Molybdenum	ND	0.25		mg/Kg	1.0	9/21/01
Nickel	4.0	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	15	0.15		mg/Kg	1.0	9/21/01
Zinc	25	0.50		mg/Kg	1.0	9/21/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010924E** BatchID: **5830**				PrepDate: **9/21/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/24/01
POTASSIUM BY ATOMIC ABSORPTION			**EPA 7610**			
RunID: **AA2_010924D** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Potassium	1100	200		mg/Kg	2.0	9/24/01

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Initials: JA

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Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	B3-6.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 11:35:00 AM
Lab ID:	053068-016A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SODIUM BY ATOMIC ABSORPTION				**EPA 7770**		
RunID: **AA2_010924F** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Sodium	730	100		mg/Kg	1.0	9/24/01
PH				**EPA 9045C**		
RunID: **WETCHEM_010925** BatchID: **R12005**				PrepDate: **9/25/01**		Analyst: **CA**
pH	9.43	0.10		pH Units	1.0	9/25/01
TOTAL ORGANIC CARBON				**EPA 9060**		
RunID: **TOC1_010920A** BatchID: **R11930**				PrepDate: **9/20/01**		Analyst: **OL**
Total Organic Carbon	130	30		mg/Kg	1.0	9/20/01

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Initials: JA

Advanced Technology Laboratories

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Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT: Environmental Science Associates
Client Sample ID: B4-0.5
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Collection Date: 9/18/01 1:30:00 PM
Lab ID: 053068-017A
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SPECIFIC CONDUCTANCE			**EPA 120.1**			
RunID: **WETCHEM_010920** BatchID: **R11928**				PrepDate: **9/20/01**		Analyst: **CA**
Specific Conductance	45	0.10		µmhos/cm	1.0	9/20/01
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Nitrogen, Nitrate (As N)	17	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	ND	0.25		mg/Kg	1.0	9/21/01
Arsenic	7.5	0.25		mg/Kg	1.0	9/21/01
Barium	40	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	5.5	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Chromium	12	0.15		mg/Kg	1.0	9/21/01
Cobalt	6.0	0.15		mg/Kg	1.0	9/21/01
Copper	9.0	0.15		mg/Kg	1.0	9/21/01
Lead	4.0	0.25		mg/Kg	1.0	9/21/01
Molybdenum	ND	0.25		mg/Kg	1.0	9/21/01
Nickel	8.5	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	20	0.15		mg/Kg	1.0	9/21/01
Zinc	43	0.50		mg/Kg	1.0	9/21/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010924E** BatchID: **5830**				PrepDate: **9/21/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/24/01
POTASSIUM BY ATOMIC ABSORPTION			**EPA 7610**			
RunID: **AA2_010924D** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Potassium	3100	400		mg/Kg	4.0	9/24/01

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Initials: JA

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Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	B4-0.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 1:30:00 PM
Lab ID:	053068-017A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SODIUM BY ATOMIC ABSORPTION				**EPA 7770**		
RunID: **AA2_010924F** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Sodium	410	100		mg/Kg	1.0	9/24/01
PH				**EPA 9045C**		
RunID: **WETCHEM_010925** BatchID: **R12005**				PrepDate: **9/25/01**		Analyst: **CA**
pH	7.42	0.10		pH Units	1.0	9/25/01
TOTAL ORGANIC CARBON				**EPA 9060**		
RunID: **TOC1_010920A** BatchID: **R11930**				PrepDate: **9/20/01**		Analyst: **OL**
Total Organic Carbon	140	30		mg/Kg	1.0	9/20/01

Qualifiers:

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Initials: JA

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Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT: Environmental Science Associates
Client Sample ID: B4-1.5
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Collection Date: 9/18/01 1:30:00 PM
Lab ID: 053068-018A
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SPECIFIC CONDUCTANCE			**EPA 120.1**			
RunID: **WETCHEM_010920** BatchID: **R11928**				PrepDate: **9/20/01**		Analyst: **CA**
Specific Conductance	54	0.10		µmhos/cm	1.0	9/20/01
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Nitrogen, Nitrate (As N)	22	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.28	0.25		mg/Kg	1.0	9/21/01
Arsenic	7.0	0.25		mg/Kg	1.0	9/21/01
Barium	35	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	6.5	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Chromium	11	0.15		mg/Kg	1.0	9/21/01
Cobalt	5.5	0.15		mg/Kg	1.0	9/21/01
Copper	6.5	0.15		mg/Kg	1.0	9/21/01
Lead	4.0	0.25		mg/Kg	1.0	9/21/01
Molybdenum	ND	0.25		mg/Kg	1.0	9/21/01
Nickel	9.0	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	20	0.15		mg/Kg	1.0	9/21/01
Zinc	45	0.50		mg/Kg	1.0	9/21/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010924E** BatchID: **5830**				PrepDate: **9/21/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/24/01
POTASSIUM BY ATOMIC ABSORPTION			**EPA 7610**			
RunID: **AA2_010924D** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Potassium	3000	400		mg/Kg	4.0	9/24/01

Qualifiers:
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B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
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Initials: JA

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Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT: Environmental Science Associates
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Lab ID: 053068-018A

Client Sample ID: B4-1.5
Collection Date: 9/18/01 1:30:00 PM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SODIUM BY ATOMIC ABSORPTION			**EPA 7770**			
RunID: **AA2_010924F** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Sodium	620	100		mg/Kg	1.0	9/24/01
PH			**EPA 9045C**			
RunID: **WETCHEM_010925** BatchID: **R12005**				PrepDate: **9/25/01**		Analyst: **CA**
pH	8.70	0.10		pH Units	1.0	9/25/01
TOTAL ORGANIC CARBON			**EPA 9060**			
RunID: **TOC1_010920A** BatchID: **R11930**				PrepDate: **9/20/01**		Analyst: **OL**
Total Organic Carbon	73	30		mg/Kg	1.0	9/20/01

Qualifiers:
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B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
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H - Samples exceeding analytical holding time
E - Value above quantitation range
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Initials: JA

Advanced Technology Laboratories
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Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT: Environmental Science Associates
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Lab ID: 053068-019A

Client Sample ID: B4-3.5
Collection Date: 9/18/01 1:30:00 PM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SPECIFIC CONDUCTANCE			**EPA 120.1**			
RunID: **WETCHEM_010920** BatchID: **R11928**				PrepDate: **9/20/01**		Analyst: **CA**
Specific Conductance	130	0.10		µmhos/cm	1.0	9/20/01
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Nitrogen, Nitrate (As N)	12	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.33	0.25		mg/Kg	1.0	9/21/01
Arsenic	9.5	0.25		mg/Kg	1.0	9/21/01
Barium	44	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	6.5	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Chromium	11	0.15		mg/Kg	1.0	9/21/01
Cobalt	5.5	0.15		mg/Kg	1.0	9/21/01
Copper	5.5	0.15		mg/Kg	1.0	9/21/01
Lead	3.5	0.25		mg/Kg	1.0	9/21/01
Molybdenum	0.37	0.25		mg/Kg	1.0	9/21/01
Nickel	8.0	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	24	0.15		mg/Kg	1.0	9/21/01
Zinc	40	0.50		mg/Kg	1.0	9/21/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010924E** BatchID: **5830**				PrepDate: **9/21/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/24/01
POTASSIUM BY ATOMIC ABSORPTION			**EPA 7610**			
RunID: **AA2_010924D** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Potassium	2100	400		mg/Kg	4.0	9/24/01

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: JA

Advanced Technology Laboratories *3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040*

Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	B4-3.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 1:30:00 PM
Lab ID:	053068-019A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SODIUM BY ATOMIC ABSORPTION				**EPA 7770**		
RunID: **AA2_010924F** BatchID: **5824**				PrepDate: **9/21/01**		Analyst: **NS**
Sodium	450	100		mg/Kg	1.0	9/24/01
PH				**EPA 9045C**		
RunID: **WETCHEM_010925** BatchID: **R12005**				PrepDate: **9/25/01**		Analyst: **CA**
pH	9.17	0.10		pH Units	1.0	9/25/01
TOTAL ORGANIC CARBON				**EPA 9060**		
RunID: **TOC1_010920A** BatchID: **R11930**				PrepDate: **9/20/01**		Analyst: **OL**
Total Organic Carbon	160	30		mg/Kg	1.0	9/20/01

Qualifiers:

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B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: JA

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT: Environmental Science Associates
Client Sample ID: B5-0.5
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Collection Date: 9/18/01 11:00:00 AM
Lab ID: 053068-020A
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SPECIFIC CONDUCTANCE			**EPA 120.1**			
RunID: **WETCHEM_010920** BatchID: **R11928**				PrepDate: **9/20/01**		Analyst: **CA**
Specific Conductance	240	0.10		µmhos/cm	1.0	9/20/01
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Nitrogen, Nitrate (As N)	12	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	45	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010924A** BatchID: **5832**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.50	0.25		mg/Kg	1.0	9/24/01
Arsenic	7.0	0.25		mg/Kg	1.0	9/24/01
Barium	38	0.15		mg/Kg	1.0	9/24/01
Beryllium	ND	0.15		mg/Kg	1.0	9/24/01
Boron	12	2.5		mg/Kg	1.0	9/24/01
Cadmium	ND	0.15		mg/Kg	1.0	9/24/01
Chromium	38	0.15		mg/Kg	1.0	9/24/01
Cobalt	5.0	0.15		mg/Kg	1.0	9/24/01
Copper	8.5	0.15		mg/Kg	1.0	9/24/01
Lead	5.5	0.25		mg/Kg	1.0	9/24/01
Molybdenum	0.50	0.25		mg/Kg	1.0	9/24/01
Nickel	20	0.15		mg/Kg	1.0	9/24/01
Selenium	ND	0.25		mg/Kg	1.0	9/24/01
Silver	ND	0.15		mg/Kg	1.0	9/24/01
Thallium	0.25	0.25		mg/Kg	1.0	9/24/01
Vanadium	19	0.15		mg/Kg	1.0	9/24/01
Zinc	44	0.50		mg/Kg	1.0	9/24/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010924E** BatchID: **5830**				PrepDate: **9/21/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/24/01
POTASSIUM BY ATOMIC ABSORPTION			**EPA 7610**			
RunID: **AA2_010924D** BatchID: **5832**				PrepDate: **9/21/01**		Analyst: **NS**
Potassium	3400	400		mg/Kg	4.0	9/24/01

Qualifiers:
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Initials: JA

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT: Environmental Science Associates
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Lab ID: 053068-020A

Client Sample ID: B5-0.5
Collection Date: 9/18/01 11:00:00 AM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SODIUM BY ATOMIC ABSORPTION			**EPA 7770**			
RunID: **AA2_010924F** BatchID: **5832**				PrepDate: **9/21/01**		Analyst: **NS**
Sodium	470	100		mg/Kg	1.0	9/24/01
PH			**EPA 9045C**			
RunID: **WETCHEM_010925** BatchID: **R12005**				PrepDate: **9/25/01**		Analyst: **CA**
pH	7.87	0.10		pH Units	1.0	9/25/01
TOTAL ORGANIC CARBON			**EPA 9060**			
RunID: **TOC1_010920A** BatchID: **R11930**				PrepDate: **9/20/01**		Analyst: **OL**
Total Organic Carbon	990	30		mg/Kg	1.0	9/20/01

Qualifiers:

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DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
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Initials: JA

Advanced Technology Laboratories *3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040*

Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT: Environmental Science Associates
Client Sample ID: B6-0.5
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Collection Date: 9/18/01 2:00:00 PM
Lab ID: 053068-021A
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SPECIFIC CONDUCTANCE			**EPA 120.1**			
RunID: **WETCHEM_010920** BatchID: **R11929**				PrepDate: **9/20/01**		Analyst: **CA**
Specific Conductance	120	0.10		µmhos/cm	1.0	9/20/01
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924B** BatchID: **R12000**				PrepDate: **9/24/01**		Analyst: **OL**
Nitrogen, Nitrate (As N)	17	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921A** BatchID: **5818**				PrepDate: **9/20/01**		Analyst: **RQ**
Antimony	0.46	0.25		mg/Kg	1.0	9/21/01
Arsenic	12	0.25		mg/Kg	1.0	9/21/01
Barium	64	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	11	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Chromium	16	0.15		mg/Kg	1.0	9/21/01
Cobalt	7.0	0.15		mg/Kg	1.0	9/21/01
Copper	12	0.15		mg/Kg	1.0	9/21/01
Lead	6.0	0.25		mg/Kg	1.0	9/21/01
Molybdenum	0.38	0.25		mg/Kg	1.0	9/21/01
Nickel	10	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	26	0.15		mg/Kg	1.0	9/21/01
Zinc	58	0.50		mg/Kg	1.0	9/21/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010924F** BatchID: **5831**				PrepDate: **9/21/01**		Analyst: **NS**
Mercury	0.11	0.10		mg/Kg	1.0	9/24/01
POTASSIUM BY ATOMIC ABSORPTION			**EPA 7610**			
RunID: **AA2_010924E** BatchID: **5825**				PrepDate: **9/21/01**		Analyst: **NS**
Potassium	2800	400		mg/Kg	4.0	9/24/01

Qualifiers:
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Initials: JA

Advanced Technology Laboratories *3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040*

Advanced Technology Laboratories

Print Date: *9/27/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	B6-0.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 2:00:00 PM
Lab ID:	053068-021A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SODIUM BY ATOMIC ABSORPTION			**EPA 7770**			
RunID: **AA2_010924G** BatchID: **5825**				PrepDate: **9/21/01**		Analyst: **NS**
Sodium	880	100		mg/Kg	1.0	9/24/01
PH			**EPA 9045C**			
RunID: **WETCHEM_010925** BatchID: **R12006**				PrepDate: **9/25/01**		Analyst: **CA**
pH	8.18	0.10		pH Units	1.0	9/25/01
TOTAL ORGANIC CARBON			**EPA 9060**			
RunID: **TOC1_010920A** BatchID: **R11930**				PrepDate: **9/20/01**		Analyst: **OL**
Total Organic Carbon	650	30		mg/Kg	1.0	9/20/01

Qualifiers:

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H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: JA

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

October 04, 2001

Shelley Kunasek
Environmental Science Associates
4221 Wilshire Boulevard, Suite 480
Los Angeles, CA 90010
TEL: (323) 933-6111
FAX (323) 934-1289

ELAP No: 1838

RE: LACSD, 200481-Phase 7

Work Order No.: 053068

Attention: Shelley Kunasek

Enclosed are the results for sample(s) received on September 19, 2001 by Advanced Technology Laboratories and tested for the parameters indicated in the enclosed chain of custody.
The attached report is the final hard copy pertaining to the subcontracted tests for the above project.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (562)989-4045 if I can be of further assistance to your company.

Sincerely,

Edgar Caballero
Laboratory Director

This cover letter is an integral part of this analytical report.

American Environmental Testing Laboratory Inc.

2834 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

Ordered By

Advanced Technology Laboratories
3275 Walnut Street
Signal Hill, CA 90807-

Telephone: (562)989-4045
Attention: Diane Galvan

Number of Pages 5
Date Received 09/19/2001
Date Reported 09/28/2001

Job Number	Order Date	Client
19877	09/19/2001	ATL

Project ID: 053068

Enclosed please find results of analyses of 21 soil samples which were analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: _____

Approved By: _____

Cyrus Razmara, Ph.D.
Laboratory Director

Advanced Technology Laboratorie
3275 Walnut Street
Signal Hill, California 90807-
(562) 989-4045

SUB CHAIN-OF-CUSTODY RECORD

Subcontractor:

AETL
2834 North Naomi Street
Burbank, CA 91504

TEL: (818) 845-8200
FAX: (818) 845-8840

Acct #:

QClevel: RTNE 19877

19-Sep-01

Sample ID	Matrix	Collection Date	Bottle Type	Requested Tests: EPA 351.3					
053068-001A \ BG1-0.5 AE103933	Soil	9/18/01 2:00:00 PM	8OZG	1					
053068-002A \ BG1-1.5 AE103934	Soil	9/18/01 2:30:00 PM	8OZG	1					
053068-003A \ BG1-3.5 AE103935	Soil	9/18/01 2:30:00 PM	8OZG	1					
053068-004A \ BG2-0.5 AE103936	Soil	9/18/01 2:30:00 PM	8OZG	1					
053068-005A \ BG2-1.5 AE103937	Soil	9/18/01 2:30:00 PM	8OZG	1					
053068-006A \ BG2-3.0 AE103938	Soil	9/18/01 2:30:00 PM	8OZG	1					
053068-007A \ BB1-0.5 AE103939	Soil	9/18/01 10:30:00 AM	8OZG	1					
053068-008A \ B1-1.5 AE103940	Soil	9/18/01 10:30:00 AM	8OZG	1					
053068-009A \ B1-3.5 AE103941	Soil	9/18/01 10:30:00 AM	8OZG	1					
053068-010A \ B2-0.5 AE103942	Soil	9/18/01 10:45:00 AM	8OZG	1					
053068-011A \ B2-1.5 AE103943	Soil	9/18/01 10:45:00 AM	8OZG	1					
053068-012A \ B2-3.5 AE103944	Soil	9/18/01 10:45:00 AM	8OZG	1					
053068-013A \ B3-0.5 AE103945	Soil	9/18/01 11:35:00 AM	8OZG	1					
053068-014A \ B3-1.5 AE103946	Soil	9/18/01 11:35:00 AM	8OZG	1					
053068-015A \ B3-3.5 AE103947	Soil	9/18/01 11:35:00 AM	8OZG	1					
053068-016A \ B3-6.5 AE103948	Soil	9/18/01 11:35:00 AM	8OZG	1					
053068-017A \ B4-0.5 AE103949	Soil	9/18/01 1:30:00 PM	8OZG	1					
053068-018A \ B4-1.5 AE103950	Soil	9/18/01 1:30:00 PM	8OZG	1					

Comments: Please use PO#: 21506 Please fax results by: NORMAL TAT

		Date/Time			Date/Time
Relinquished by:		9/19/01 12:30.	**Received by:**	Ronald Garcia	9/19/01 7:45
Relinquished by:			**Received by:**		

Advanced Technology Laboratorie
3275 Walnut Street
Signal Hill, California 90807-
(562) 989-4045

SUB CHAIN-OF-CUSTODY RECORD

Subcontractor:

AETL
2834 North Naomi Street
Burbank, CA 91504

TEL: (818) 845-8200
FAX: (818) 845-8840

Acct #:

QClevel: RTNE 19877

19-Sep-01

Sample ID	Matrix	Collection Date	Bottle Type	Requested Tests: EPA 351.3					
053068-019A \ B4-3.5 AE03951	Soil	9/18/01 1:30:00 PM	8OZG	1					
053068-020A \ B5-0.5 AE03952	Soil	9/18/01 11:00:00 AM	8OZG	1					
053068-021A \ B6-0.5 AE03953	Soil	9/18/01 2:00:00 PM	8OZG	1					

Comments: Please use PO#: 21506 Please fax results by: NORMAL TAT

	Date/Time		Date/Time
Relinquished by: [signature]	9/19/01 12:30	**Received by:** Ronald Adams	9/19/01 7:45
Relinquished by:		**Received by:**	

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ANALYTICAL RESULTS

Ordered By

Advanced Technology Laboratories
3275 Walnut Street
Signal Hill, CA 90807-

Telephone: (562)989-4045
Attn: Diane Galvan
Page 2
Project ID: 053068

AETL Job Number	Submitted	Client
19877	09/19/2001	ATL

Analytes			Nitrogen, Total Kjeldahl			
Methods of Analyses			(351.3)			
Date Prepared			09/26/2001			
Date Analyzed			09/26/2001			
Matrix			Soil			
QC Batch Number			09262001 / 09262001			
Units			mg/Kg			
Detection Limit			0.5			
Practical Quantitation Limit			1.0			
Dilution Factor			1			
Lab ID	Sample ID	Sampled	Results			
AE103933	053068-001A	09/18/2001	184			
AE103934	053068-002A	09/18/2001	96.5			
AE103935	053068-003A	09/18/2001	21.5			
AE103936	053068-004A	09/18/2001	61.5			
AE103937	053068-005A	09/18/2001	131			
AE103938	053068-006A	09/18/2001	43.5			
AE103939	053068-007A	09/18/2001	288			
AE103940	053068-008A	09/18/2001	76.5			
AE103941	053068-009A	09/18/2001	26.5			
AE103942	053068-010A	09/18/2001	346			
AE103943	053068-011A	09/18/2001	173			
AE103944	053068-012A	09/18/2001	59.5			
AE103945	053068-013A	09/18/2001	110			
N/A	Method Blank	09/18/2001	ND			

American Environmental Testing Laboratory Inc.

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ANALYTICAL RESULTS

Project ID: 053068

AETL Job Number	Submitted	Client
19877	09/19/2001	ATL

Analytes			Nitrogen, Total Kjeldahl
Methods of Analyses			(351.3)
Date Prepared			09/26/2001
Date Analyzed			09/26/2001
Matrix			Soil
QC Batch Number			09262001-1 / 09262001-1
Units			mg/Kg
Detection Limit			0.5
Practical Quantitation Limit			1.0
Dilution Factor			1
Lab ID	**Sample ID**	**Sampled**	**Results**
AE103946	053068-014A	09/18/2001	73.5
AE103947	053068-015A	09/18/2001	69
AE103948	053068-016A	09/18/2001	16
AE103949	053068-017A	09/18/2001	119
AE103950	053068-018A	09/18/2001	58
AE103951	053068-019A	09/18/2001	28
AE103952	053068-020A	09/18/2001	448
AE103953	053068-021A	09/18/2001	77

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ANALYTICAL RESULTS

Ordered By

Advanced Technology Laboratories
3275 Walnut Street
Signal Hill, CA 90807-

Telephone: (562)989-4045
Attn: Diane Galvan

Page: 4
Project ID: 053068

AETL Job Number	Submitted	Client
19877	09/19/2001	ATL

Method: (351.3), Nitrogen, Total Kjeldahl

QUALITY CONTROL REPORT

QC Batch Number: 09262001 / 09262001

Analytes	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit	
Nitrogen, Total Kjeldahl	0.50	0.51	102	0.50	0.47	93	9.2	80-120	<15	

QC Batch Number: 09262001 / 09262001

Analytes	SM Result	SM DUP Result	RPD %	SM RPD % Limit	LCS Concen	LCS Recov	LCS % REC	LCS/LCSD % Limit		
Nitrogen, Total Kjeldahl	180	184	2.2	<15	0.50	0.47	94	80-120		

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ANALYTICAL RESULTS

Ordered By

Advanced Technology Laboratories
3275 Walnut Street
Signal Hill, CA 90807-

Telephone: (562)989-4045
Attn: Diane Galvan

Page: 5
Project ID: 053068

AETL Job Number	Submitted	Client
19877	09/19/2001	ATL

Method: (351.3), Nitrogen, Total Kjeldahl

QUALITY CONTROL REPORT

QC Batch Number: 09262001-1 / 09262001-1

Analytes	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit	
Nitrogen, Total Kjeldahl	0.50	0.48	95	0.50	0.45	90	5.4	80-120	<15	

QC Batch Number: 09262001-1 / 09262001-1

Analytes	SM Result	SM DUP Result	RPD %	SM RPD % Limit	LCS Concen	LCS Recov	LCS % REC	LCS/LCSD % Limit		
Nitrogen, Total Kjeldahl	73.5	71.5	2.8	<15	0.50	0.50	100	80-120		

American Environmental Testing Laboratory Inc.

2834 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

Data Qualifiers and Descriptors

Data Qualifier:

B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.
MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

October 11, 2001

Shelley Kunasek
Environmental Science Associates
4221 Wilshire Boulevard, Suite 480
Los Angeles, CA 90010
TEL: (323) 933-6111
FAX (323) 934-1289

ELAP No: 1838

RE: LACSD, 200481-Phase 7

Work Order No.: 053068

Attention: Shelley Kunasek

Enclosed are the results for sample(s) received on September 19, 2001 by Advanced Technology Laboratories and tested for the parameters indicated in the enclosed chain of custody.
Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (562)989-4045 if I can be of further assistance to your company.

Sincerely,

Edgar Caballero
Laboratory Director

This cover letter is an integral part of this analytical report.

Advanced Technology Laboratories

Invoice

Invoice Number
53212
Invoice Date:
Oct 17, 2001
Page:
1

Bill To:
Environmental Science Associat
4221 Wilshire Blvd
Suite 480
Los Angeles, CA 90010

Report Sent To:
Environmental Science Associat
4221 Wilshire Blvd
Suite 480
Los Angeles, CA 90010

Customer ID	PO Number	Payment Terms
esa		Net 30 Days
Lab No.	**Project No.**	**Report Date**
53449	LACSD, Z00481-Phase	10/11/01

Quantity	Item Code	Description	Unit Price	Amount
21	6010met	metals-2	20.00	420.00
21	300cl	Chloride	25.00	525.00
1	disc10%	Discount of 10%	94.50	-94.50

Total Invoice Amount 850.50

For your convenience, we now accept Visa and Master Card. To use this new service, please complete, sign, and return this invoice to ATL.

MC ☐ *VISA* ☐ *Card No.:* _____ *Exp. Date:* _____

Invoice No.: _____ *Amount:* _____

Printed Name: _____ *Signature:* _____

TERMS: Net 30. Discounts & special pricing are applicable only if paid within 60 days, otherwise pay list price.

REMIT TO: P.O. Box 92797 Long Beach, CA 90809-2797
Tel: 562 989-4045 Fax: 562 989-6348

ESA Environmental Science Associates

FAX COVER SHEET

Original will follow via: ☐ Regular Mail ☐ Federal Express
Original will not follow ☐
Number of pages including this cover sheet: 1

To	*	Jasmine and/or Diane
Company	*	Advance Technology Laboratory
FAX Number	*	(562) 989-4040
Phone Number	*	(562) 989-4045
From	*	Shelley Kunasek
ESA Project	*	Lancaster
Date	*	October 10, 2001

Comments *

Jasmine and/or Diane,

I am requesting the following additional analyses and information:

- Please analyze our samples for chloride, calcium, and magnesium in addition to the analyses already performed.
- Please rush the analysis (if there is no additional cost)
- Include in results, if possible, a calculation of the sodium absorption ratio, based on new calcium and magnesium data and previously analyzed sodium data.
- Please fax me the quality analysis or any background information you have for the potassium analysis. Our results for potassium are an order of magnitude higher than anticipated and we would like to understand why.

Thank you very much. If you have any questions, please call me.

Sincerely,
Shelley Kunasek

4221 Wilshire Boulevard, Suite 480 Los Angeles, California 90010 (323) 933-6111 Fax 934-1289 email: esa.la@esassoc.com

Advanced Technology Laboratories

Print Date: *10/11/01*

CLIENT: Environmental Science Associates
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Lab ID: 053068-001A

Client Sample ID: BG1-0.5
Collection Date: 9/18/01 2:00:00 PM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Chloride	180	25		mg/Kg	5.0	9/24/01
Nitrogen, Nitrate (As N)	17	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.41	0.25		mg/Kg	1.0	9/21/01
Arsenic	12	0.25		mg/Kg	1.0	9/21/01
Barium	74	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	15	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Calcium	6100	5.0		mg/Kg	1.0	9/21/01
Chromium	17	0.15		mg/Kg	1.0	9/21/01
Cobalt	8.0	0.15		mg/Kg	1.0	9/21/01
Copper	16	0.15		mg/Kg	1.0	9/21/01
Lead	7.5	0.25		mg/Kg	1.0	9/21/01
Magnesium	11000	5.0		mg/Kg	1.0	9/21/01
Molybdenum	0.41	0.25		mg/Kg	1.0	9/21/01
Nickel	13	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	27	0.15		mg/Kg	1.0	9/21/01
Zinc	70	0.50		mg/Kg	1.0	9/21/01

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *10/11/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	BG1-1.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 2:00:00 PM
Lab ID:	053068-002A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Chloride	140	25		mg/Kg	5.0	9/24/01
Nitrogen, Nitrate (As N)	18	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.28	0.25		mg/Kg	1.0	9/21/01
Arsenic	10	0.25		mg/Kg	1.0	9/21/01
Barium	57	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	14	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Calcium	39000	5.0		mg/Kg	1.0	9/21/01
Chromium	10	0.15		mg/Kg	1.0	9/21/01
Cobalt	6.0	0.15		mg/Kg	1.0	9/21/01
Copper	10	0.15		mg/Kg	1.0	9/21/01
Lead	3.5	0.25		mg/Kg	1.0	9/21/01
Magnesium	17000	5.0		mg/Kg	1.0	9/21/01
Molybdenum	ND	0.25		mg/Kg	1.0	9/21/01
Nickel	7.5	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	20	0.15		mg/Kg	1.0	9/21/01
Zinc	44	0.50		mg/Kg	1.0	9/21/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *10/11/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	BG1-3.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 2:00:00 PM
Lab ID:	053068-003A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Chloride	130	25		mg/Kg	5.0	9/24/01
Nitrogen, Nitrate (As N)	11	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.38	0.25		mg/Kg	1.0	9/21/01
Arsenic	8.5	0.25		mg/Kg	1.0	9/21/01
Barium	48	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	6.0	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Calcium	39000	5.0		mg/Kg	1.0	9/21/01
Chromium	10	0.15		mg/Kg	1.0	9/21/01
Cobalt	4.5	0.15		mg/Kg	1.0	9/21/01
Copper	4.0	0.15		mg/Kg	1.0	9/21/01
Lead	2.5	0.25		mg/Kg	1.0	9/21/01
Magnesium	5200	5.0		mg/Kg	1.0	9/21/01
Molybdenum	0.30	0.25		mg/Kg	1.0	9/21/01
Nickel	6.5	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	14	0.15		mg/Kg	1.0	9/21/01
Zinc	34	0.50		mg/Kg	1.0	9/21/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *10/11/01*

CLIENT: Environmental Science Associates
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Lab ID: 053068-004A

Client Sample ID: BG2-0.5
Collection Date: 9/18/01 2:30:00 PM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Chloride	160	25		mg/Kg	5.0	9/24/01
Nitrogen, Nitrate (As N)	14	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.34	0.25		mg/Kg	1.0	9/21/01
Arsenic	6.0	0.25		mg/Kg	1.0	9/21/01
Barium	36	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	5.0	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Calcium	2800	5.0		mg/Kg	1.0	9/21/01
Chromium	14	0.15		mg/Kg	1.0	9/21/01
Cobalt	5.0	0.15		mg/Kg	1.0	9/21/01
Copper	8.0	0.15		mg/Kg	1.0	9/21/01
Lead	2.5	0.25		mg/Kg	1.0	9/21/01
Magnesium	3500	5.0		mg/Kg	1.0	9/21/01
Molybdenum	0.30	0.25		mg/Kg	1.0	9/21/01
Nickel	12	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	16	0.15		mg/Kg	1.0	9/21/01
Zinc	31	0.50		mg/Kg	1.0	9/21/01

Qualifiers:
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S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials:

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *10/15/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	BG2-1.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 2:30:00 PM
Lab ID:	053068-005A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_011011A** BatchID: **R12327**				PrepDate: **10/11/01**		Analyst: **OL**
Chloride	770	50		mg/Kg	10	10/11/01
Nitrogen, Nitrate (As N)	20	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.43	0.25		mg/Kg	1.0	9/21/01
Arsenic	18	0.25		mg/Kg	1.0	9/21/01
Barium	48	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	57	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Calcium	13000	5.0		mg/Kg	1.0	9/21/01
Chromium	22	0.15		mg/Kg	1.0	9/21/01
Cobalt	9.0	0.15		mg/Kg	1.0	9/21/01
Copper	19	0.15		mg/Kg	1.0	9/21/01
Lead	8.0	0.25		mg/Kg	1.0	9/21/01
Magnesium	14000	5.0		mg/Kg	1.0	9/21/01
Molybdenum	0.50	0.25		mg/Kg	1.0	9/21/01
Nickel	16	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	34	0.15		mg/Kg	1.0	9/21/01
Zinc	72	0.50		mg/Kg	1.0	9/21/01

Qualifiers:

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DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
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E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials:

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *10/15/01*

CLIENT: Environmental Science Associates
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Lab ID: 053068-006A

Client Sample ID: BG2-3.0
Collection Date: 9/18/01 2:30:00 PM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_011011A** BatchID: **R12327**				PrepDate: **10/11/01**		Analyst: **OL**
Chloride	390	50		mg/Kg	10	10/11/01
Nitrogen, Nitrate (As N)	15	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.46	0.25		mg/Kg	1.0	9/21/01
Arsenic	22	0.25		mg/Kg	1.0	9/21/01
Barium	45	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	18	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Calcium	22000	5.0		mg/Kg	1.0	9/21/01
Chromium	11	0.15		mg/Kg	1.0	9/21/01
Cobalt	5.5	0.15		mg/Kg	1.0	9/21/01
Copper	7.5	0.15		mg/Kg	1.0	9/21/01
Lead	3.5	0.25		mg/Kg	1.0	9/21/01
Magnesium	8800	5.0		mg/Kg	1.0	9/21/01
Molybdenum	0.38	0.25		mg/Kg	1.0	9/21/01
Nickel	8.5	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	36	0.15		mg/Kg	1.0	9/21/01
Zinc	36	0.50		mg/Kg	1.0	9/21/01

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *10/11/01*

CLIENT: Environmental Science Associates
Client Sample ID: B1-0.5
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Collection Date: 9/18/01 10:30:00 AM
Lab ID: 053068-007A
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Chloride	280	25		mg/Kg	5.0	9/24/01
Nitrogen, Nitrate (As N)	26	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.34	0.25		mg/Kg	1.0	9/21/01
Arsenic	10	0.25		mg/Kg	1.0	9/21/01
Barium	52	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	13	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Calcium	11000	5.0		mg/Kg	1.0	9/21/01
Chromium	15	0.15		mg/Kg	1.0	9/21/01
Cobalt	7.5	0.15		mg/Kg	1.0	9/21/01
Copper	12	0.15		mg/Kg	1.0	9/21/01
Lead	5.5	0.25		mg/Kg	1.0	9/21/01
Magnesium	7700	5.0		mg/Kg	1.0	9/21/01
Molybdenum	0.34	0.25		mg/Kg	1.0	9/21/01
Nickel	12	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	26	0.15		mg/Kg	1.0	9/21/01
Zinc	52	0.50		mg/Kg	1.0	9/21/01

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials:

Advanced Technology Laboratories *3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040*

Advanced Technology Laboratories

Print Date: *10/11/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	B1-1.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 10:30:00 AM
Lab ID:	053068-008A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Chloride	260	25		mg/Kg	5.0	9/24/01
Nitrogen, Nitrate (As N)	15	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.48	0.25		mg/Kg	1.0	9/21/01
Arsenic	13	0.25		mg/Kg	1.0	9/21/01
Barium	52	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	10	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Calcium	37000	5.0		mg/Kg	1.0	9/21/01
Chromium	10	0.15		mg/Kg	1.0	9/21/01
Cobalt	5.5	0.15		mg/Kg	1.0	9/21/01
Copper	9.0	0.15		mg/Kg	1.0	9/21/01
Lead	3.5	0.25		mg/Kg	1.0	9/21/01
Magnesium	17000	5.0		mg/Kg	1.0	9/21/01
Molybdenum	0.27	0.25		mg/Kg	1.0	9/21/01
Nickel	7.5	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	27	0.15		mg/Kg	1.0	9/21/01
Zinc	37	0.50		mg/Kg	1.0	9/21/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *10/11/01*

CLIENT: Environmental Science Associates
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Lab ID: 053068-009A

Client Sample ID: B1-3.5
Collection Date: 9/18/01 10:30:00 AM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Chloride	190	25		mg/Kg	5.0	9/24/01
Nitrogen, Nitrate (As N)	13	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	ND	0.25		mg/Kg	1.0	9/21/01
Arsenic	18	0.25		mg/Kg	1.0	9/21/01
Barium	64	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	7.0	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Calcium	21000	5.0		mg/Kg	1.0	9/21/01
Chromium	12	0.15		mg/Kg	1.0	9/21/01
Cobalt	7.5	0.15		mg/Kg	1.0	9/21/01
Copper	8.5	0.15		mg/Kg	1.0	9/21/01
Lead	4.0	0.25		mg/Kg	1.0	9/21/01
Magnesium	6700	5.0		mg/Kg	1.0	9/21/01
Molybdenum	0.38	0.25		mg/Kg	1.0	9/21/01
Nickel	9.0	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	36	0.15		mg/Kg	1.0	9/21/01
Zinc	50	0.50		mg/Kg	1.0	9/21/01

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *10/11/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	B2-0.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 10:45:00 AM
Lab ID:	053068-010A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Chloride	180	25		mg/Kg	5.0	9/24/01
Nitrogen, Nitrate (As N)	24	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.34	0.25		mg/Kg	1.0	9/21/01
Arsenic	9.0	0.25		mg/Kg	1.0	9/21/01
Barium	47	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	12	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Calcium	5900	5.0		mg/Kg	1.0	9/21/01
Chromium	16	0.15		mg/Kg	1.0	9/21/01
Cobalt	6.5	0.15		mg/Kg	1.0	9/21/01
Copper	12	0.15		mg/Kg	1.0	9/21/01
Lead	5.0	0.25		mg/Kg	1.0	9/21/01
Magnesium	5900	5.0		mg/Kg	1.0	9/21/01
Molybdenum	ND	0.25		mg/Kg	1.0	9/21/01
Nickel	10	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	24	0.15		mg/Kg	1.0	9/21/01
Zinc	53	0.50		mg/Kg	1.0	9/21/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *10/11/01*

CLIENT: Environmental Science Associates
Client Sample ID: B2-1.5
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Collection Date: 9/18/01 10:45:00 AM
Lab ID: 053068-011A
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Chloride	290	25		mg/Kg	5.0	9/24/01
Nitrogen, Nitrate (As N)	22	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.50	0.25		mg/Kg	1.0	9/21/01
Arsenic	12	0.25		mg/Kg	1.0	9/21/01
Barium	62	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	12	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Calcium	6600	5.0		mg/Kg	1.0	9/21/01
Chromium	20	0.15		mg/Kg	1.0	9/21/01
Cobalt	8.0	0.15		mg/Kg	1.0	9/21/01
Copper	14	0.15		mg/Kg	1.0	9/21/01
Lead	7.0	0.25		mg/Kg	1.0	9/21/01
Magnesium	7500	5.0		mg/Kg	1.0	9/21/01
Molybdenum	0.32	0.25		mg/Kg	1.0	9/21/01
Nickel	15	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	30	0.15		mg/Kg	1.0	9/21/01
Zinc	56	0.50		mg/Kg	1.0	9/21/01

Qualifiers:
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J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials:

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *10/11/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	B2-3.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 10:45:00 AM
Lab ID:	053068-012A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Chloride	180	25		mg/Kg	5.0	9/24/01
Nitrogen, Nitrate (As N)	15	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.39	0.25		mg/Kg	1.0	9/21/01
Arsenic	18	0.25		mg/Kg	1.0	9/21/01
Barium	86	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	10	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Calcium	45000	5.0		mg/Kg	1.0	9/21/01
Chromium	15	0.15		mg/Kg	1.0	9/21/01
Cobalt	8.0	0.15		mg/Kg	1.0	9/21/01
Copper	10	0.15		mg/Kg	1.0	9/21/01
Lead	5.0	0.25		mg/Kg	1.0	9/21/01
Magnesium	8700	5.0		mg/Kg	1.0	9/21/01
Molybdenum	0.50	0.25		mg/Kg	1.0	9/21/01
Nickel	11	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	32	0.15		mg/Kg	1.0	9/21/01
Zinc	53	0.50		mg/Kg	1.0	9/21/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials:

Advanced Technology Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *10/11/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	B3-0.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 11:35:00 AM
Lab ID:	053068-013A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Chloride	140	25		mg/Kg	5.0	9/24/01
Nitrogen, Nitrate (As N)	17	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.31	0.25		mg/Kg	1.0	9/21/01
Arsenic	9.0	0.25		mg/Kg	1.0	9/21/01
Barium	37	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	7.5	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Calcium	7400	5.0		mg/Kg	1.0	9/21/01
Chromium	9.5	0.15		mg/Kg	1.0	9/21/01
Cobalt	5.0	0.15		mg/Kg	1.0	9/21/01
Copper	7.0	0.15		mg/Kg	1.0	9/21/01
Lead	3.5	0.25		mg/Kg	1.0	9/21/01
Magnesium	4500	5.0		mg/Kg	1.0	9/21/01
Molybdenum	0.29	0.25		mg/Kg	1.0	9/21/01
Nickel	7.0	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	20	0.15		mg/Kg	1.0	9/21/01
Zinc	36	0.50		mg/Kg	1.0	9/21/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials:

Advanced Technology Laboratories *3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040*

Advanced Technology Laboratories

Print Date: *10/11/01*

CLIENT: Environmental Science Associates
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Lab ID: 053068-014A

Client Sample ID: B3-1.5
Collection Date: 9/18/01 11:35:00 AM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Chloride	150	25		mg/Kg	5.0	9/24/01
Nitrogen, Nitrate (As N)	12	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.35	0.25		mg/Kg	1.0	9/21/01
Arsenic	12	0.25		mg/Kg	1.0	9/21/01
Barium	42	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	8.0	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Calcium	5600	5.0		mg/Kg	1.0	9/21/01
Chromium	13	0.15		mg/Kg	1.0	9/21/01
Cobalt	7.0	0.15		mg/Kg	1.0	9/21/01
Copper	6.5	0.15		mg/Kg	1.0	9/21/01
Lead	3.5	0.25		mg/Kg	1.0	9/21/01
Magnesium	6400	5.0		mg/Kg	1.0	9/21/01
Molybdenum	0.50	0.25		mg/Kg	1.0	9/21/01
Nickel	9.5	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	28	0.15		mg/Kg	1.0	9/21/01
Zinc	46	0.50		mg/Kg	1.0	9/21/01

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials:

Advanced Technology Laboratories *3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040*

Advanced Technology Laboratories

Print Date: *10/11/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	B3-3.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 11:35:00 AM
Lab ID:	053068-015A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Chloride	180	25		mg/Kg	5.0	9/24/01
Nitrogen, Nitrate (As N)	12	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	ND	0.25		mg/Kg	1.0	9/21/01
Arsenic	14	0.25		mg/Kg	1.0	9/21/01
Barium	53	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	8.5	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Calcium	15000	5.0		mg/Kg	1.0	9/21/01
Chromium	13	0.15		mg/Kg	1.0	9/21/01
Cobalt	6.0	0.15		mg/Kg	1.0	9/21/01
Copper	9.0	0.15		mg/Kg	1.0	9/21/01
Lead	3.5	0.25		mg/Kg	1.0	9/21/01
Magnesium	7900	5.0		mg/Kg	1.0	9/21/01
Molybdenum	0.50	0.25		mg/Kg	1.0	9/21/01
Nickel	10	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	25	0.15		mg/Kg	1.0	9/21/01
Zinc	42	0.50		mg/Kg	1.0	9/21/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials:

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *10/11/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	B3-6.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 11:35:00 AM
Lab ID:	053068-016A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Chloride	160	25		mg/Kg	5.0	9/24/01
Nitrogen, Nitrate (As N)	13	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	ND	0.25		mg/Kg	1.0	9/21/01
Arsenic	6.5	0.25		mg/Kg	1.0	9/21/01
Barium	48	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	3.5	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Calcium	5600	5.0		mg/Kg	1.0	9/21/01
Chromium	6.0	0.15		mg/Kg	1.0	9/21/01
Cobalt	3.0	0.15		mg/Kg	1.0	9/21/01
Copper	4.0	0.15		mg/Kg	1.0	9/21/01
Lead	2.0	0.25		mg/Kg	1.0	9/21/01
Magnesium	3600	5.0		mg/Kg	1.0	9/21/01
Molybdenum	ND	0.25		mg/Kg	1.0	9/21/01
Nickel	4.0	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	15	0.15		mg/Kg	1.0	9/21/01
Zinc	25	0.50		mg/Kg	1.0	9/21/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

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Advanced Technology Laboratories

Print Date: *10/11/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	B4-0.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 1:30:00 PM
Lab ID:	053068-017A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Chloride	170	25		mg/Kg	5.0	9/24/01
Nitrogen, Nitrate (As N)	17	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	ND	0.25		mg/Kg	1.0	9/21/01
Arsenic	7.5	0.25		mg/Kg	1.0	9/21/01
Barium	40	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	5.5	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Calcium	2800	5.0		mg/Kg	1.0	9/21/01
Chromium	12	0.15		mg/Kg	1.0	9/21/01
Cobalt	6.0	0.15		mg/Kg	1.0	9/21/01
Copper	9.0	0.15		mg/Kg	1.0	9/21/01
Lead	4.0	0.25		mg/Kg	1.0	9/21/01
Magnesium	4500	5.0		mg/Kg	1.0	9/21/01
Molybdenum	ND	0.25		mg/Kg	1.0	9/21/01
Nickel	8.5	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	20	0.15		mg/Kg	1.0	9/21/01
Zinc	43	0.50		mg/Kg	1.0	9/21/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

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Advanced Technology Laboratories

Print Date: *10/11/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	B4-1.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 1:30:00 PM
Lab ID:	053068-018A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Chloride	340	25		mg/Kg	5.0	9/24/01
Nitrogen, Nitrate (As N)	22	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.28	0.25		mg/Kg	1.0	9/21/01
Arsenic	7.0	0.25		mg/Kg	1.0	9/21/01
Barium	35	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	6.5	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Calcium	2600	5.0		mg/Kg	1.0	9/21/01
Chromium	11	0.15		mg/Kg	1.0	9/21/01
Cobalt	5.5	0.15		mg/Kg	1.0	9/21/01
Copper	6.5	0.15		mg/Kg	1.0	9/21/01
Lead	4.0	0.25		mg/Kg	1.0	9/21/01
Magnesium	4600	5.0		mg/Kg	1.0	9/21/01
Molybdenum	ND	0.25		mg/Kg	1.0	9/21/01
Nickel	9.0	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	20	0.15		mg/Kg	1.0	9/21/01
Zinc	45	0.50		mg/Kg	1.0	9/21/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories *3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040*

Advanced Technology Laboratories

Print Date: *10/11/01*

CLIENT: Environmental Science Associates
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Lab ID: 053068-019A

Client Sample ID: B4-3.5
Collection Date: 9/18/01 1:30:00 PM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Chloride	170	25		mg/Kg	5.0	9/24/01
Nitrogen, Nitrate (As N)	12	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921D** BatchID: **5823**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.33	0.25		mg/Kg	1.0	9/21/01
Arsenic	9.5	0.25		mg/Kg	1.0	9/21/01
Barium	44	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	6.5	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Calcium	12000	5.0		mg/Kg	1.0	9/21/01
Chromium	11	0.15		mg/Kg	1.0	9/21/01
Cobalt	5.5	0.15		mg/Kg	1.0	9/21/01
Copper	5.5	0.15		mg/Kg	1.0	9/21/01
Lead	3.5	0.25		mg/Kg	1.0	9/21/01
Magnesium	5600	5.0		mg/Kg	1.0	9/21/01
Molybdenum	0.37	0.25		mg/Kg	1.0	9/21/01
Nickel	8.0	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	24	0.15		mg/Kg	1.0	9/21/01
Zinc	40	0.50		mg/Kg	1.0	9/21/01

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials:

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Advanced Technology Laboratories

Print Date: *10/11/01*

CLIENT:	Environmental Science Associates	**Client Sample ID:**	B5-0.5
Lab Order:	053068		
Project:	LACSD, 200481-Phase 7	**Collection Date:**	9/18/01 11:00:00 AM
Lab ID:	053068-020A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924A** BatchID: **R11998**				PrepDate: **9/24/01**		Analyst: **OL**
Chloride	210	25		mg/Kg	5.0	9/24/01
Nitrogen, Nitrate (As N)	12	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	45	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010924A** BatchID: **5832**				PrepDate: **9/21/01**		Analyst: **RQ**
Antimony	0.50	0.25		mg/Kg	1.0	9/24/01
Arsenic	7.0	0.25		mg/Kg	1.0	9/24/01
Barium	38	0.15		mg/Kg	1.0	9/24/01
Beryllium	ND	0.15		mg/Kg	1.0	9/24/01
Boron	12	2.5		mg/Kg	1.0	9/24/01
Cadmium	ND	0.15		mg/Kg	1.0	9/24/01
Calcium	4000	5.0		mg/Kg	1.0	9/24/01
Chromium	38	0.15		mg/Kg	1.0	9/24/01
Cobalt	5.0	0.15		mg/Kg	1.0	9/24/01
Copper	8.5	0.15		mg/Kg	1.0	9/24/01
Lead	5.5	0.25		mg/Kg	1.0	9/24/01
Magnesium	4000	5.0		mg/Kg	1.0	9/24/01
Molybdenum	0.50	0.25		mg/Kg	1.0	9/24/01
Nickel	20	0.15		mg/Kg	1.0	9/24/01
Selenium	ND	0.25		mg/Kg	1.0	9/24/01
Silver	ND	0.15		mg/Kg	1.0	9/24/01
Thallium	0.25	0.25		mg/Kg	1.0	9/24/01
Vanadium	19	0.15		mg/Kg	1.0	9/24/01
Zinc	44	0.50		mg/Kg	1.0	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: _____

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Advanced Technology Laboratories

Print Date: *10/11/01*

CLIENT: Environmental Science Associates
Lab Order: 053068
Project: LACSD, 200481-Phase 7
Lab ID: 053068-021A

Client Sample ID: B6-0.5
Collection Date: 9/18/01 2:00:00 PM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY			**EPA 300**			
RunID: **IC1_010924B** BatchID: **R12000**				PrepDate: **9/24/01**		Analyst: **OL**
Chloride	160	25		mg/Kg	5.0	9/24/01
Nitrogen, Nitrate (As N)	17	5.0		mg/Kg	1.0	9/24/01
Nitrogen, Nitrite	ND	5.0		mg/Kg	1.0	9/24/01
Phosphorus, Dissolved Orthophosphate (As P)	ND	25		mg/Kg	1.0	9/24/01
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010921A** BatchID: **5818**				PrepDate: **9/20/01**		Analyst: **RQ**
Antimony	0.46	0.25		mg/Kg	1.0	9/21/01
Arsenic	12	0.25		mg/Kg	1.0	9/21/01
Barium	64	0.15		mg/Kg	1.0	9/21/01
Beryllium	ND	0.15		mg/Kg	1.0	9/21/01
Boron	11	2.5		mg/Kg	1.0	9/21/01
Cadmium	ND	0.15		mg/Kg	1.0	9/21/01
Calcium	16000	5.0		mg/Kg	1.0	9/21/01
Chromium	16	0.15		mg/Kg	1.0	9/21/01
Cobalt	7.0	0.15		mg/Kg	1.0	9/21/01
Copper	12	0.15		mg/Kg	1.0	9/21/01
Lead	6.0	0.25		mg/Kg	1.0	9/21/01
Magnesium	8900	5.0		mg/Kg	1.0	9/21/01
Molybdenum	0.38	0.25		mg/Kg	1.0	9/21/01
Nickel	10	0.15		mg/Kg	1.0	9/21/01
Selenium	ND	0.25		mg/Kg	1.0	9/21/01
Silver	ND	0.15		mg/Kg	1.0	9/21/01
Thallium	ND	0.25		mg/Kg	1.0	9/21/01
Vanadium	26	0.15		mg/Kg	1.0	9/21/01
Zinc	58	0.50		mg/Kg	1.0	9/21/01

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials:

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Advanced Technology Laboratories

Date: *11-Oct-01*

CLIENT: Environmental Science Associates
Work Order: 053068
Project: LACSD, 200481-Phase 7

QC SUMMARY REPORT
Method Blank

Sample ID **MB-5824** Batch ID: **5824** Test Name **POTASSIUM BY ATOMIC ABSORPTION** Units **mg/Kg** Analysis Date: **9/24/01** Prep Date: **9/21/01**
MBLK SeqNo: **187645**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	ND	100		0				0			

Sample ID **MB-5825** Batch ID: **5825** Test Name **POTASSIUM BY ATOMIC ABSORPTION** Units **mg/Kg** Analysis Date: **9/24/01** Prep Date: **9/21/01**
MBLK SeqNo: **187669**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	ND	100		0				0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials:

All calculations are based on raw values.

Advanced Technology Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *11-Oct-01*

CLIENT: Environmental Science Associates
Work Order: 053068
Project: LACSD, 200481-Phase 7

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID **053068-020AMS** Batch ID: **5824** Test Name **POTASSIUM BY ATOMIC ABSORPTION** Units **mg/Kg** Analysis Date: **9/24/01** Prep Date: **9/21/01**
MS SeqNo: **187666**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	3900	400	500	3400	100	50	150	0			

Sample ID **053068-020AMS** Batch ID: **5824** Test Name **POTASSIUM BY ATOMIC ABSORPTION** Units **mg/Kg** Analysis Date: **9/24/01** Prep Date: **9/21/01**
MSD SeqNo: **187667**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	3900	400	500	3400	104	50	150	3900	0	35	

Sample ID **053068-021AMS** Batch ID: **5825** Test Name **POTASSIUM BY ATOMIC ABSORPTION** Units **mg/Kg** Analysis Date: **9/24/01** Prep Date: **9/21/01**
MS SeqNo: **187671**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	2900	400	500	2800	25	50	150	0			S

Sample ID **053068-021AMS** Batch ID: **5825** Test Name **POTASSIUM BY ATOMIC ABSORPTION** Units **mg/Kg** Analysis Date: **9/24/01** Prep Date: **9/21/01**
MSD SeqNo: **187672**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	2900	400	500	2800	25	50	150	2900	1	35	S

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: _____

All calculations are based on raw values.

Advanced Technology Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *11-Oct-01*

CLIENT: Environmental Science Associates
Work Order: 053068
Project: LACSD, 200481-Phase 7

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID **LCS-5824** Batch ID: **5824** Test Name **POTASSIUM BY ATOMIC ABSORPTION** Units **mg/Kg** Analysis Date: **9/24/01** Prep Date: **9/21/01**

LCS SeqNo: **187668**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	460	100	500	32	86	80	120	0			

Sample ID **LCS-5825** Batch ID: **5825** Test Name **POTASSIUM BY ATOMIC ABSORPTION** Units **mg/Kg** Analysis Date: **9/24/01** Prep Date: **9/21/01**

LCS SeqNo: **187673**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	460	100	500	31	86	80	120	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: M

All calculations are based on raw values.

ESA Environmental Science Associates

FAX COVER SHEET

Original will follow via: ☐ Regular Mail ☐ Federal Express
Original will not follow ☐
Number of pages including this cover sheet: 1

To	•	Jasmine and/or Diane
Company	•	Advance Technology Laboratory
FAX Number	•	(562) 989-4040
Phone Number	•	(562) 989-4045
From	•	Shelley Kunasek
ESA Project	•	Lancaster
Date	•	October 10, 2001

Comments •

Jasmine and/or Diane-

I am requesting the following additional analyses and information:

- Please analyze our samples for chloride, calcium, and magnesium in addition to the analyses already performed.
- Please rush the analysis (if there is no additional cost)
- Include in results, if possible, a calculation of the sodium absorption ratio, based on new calcium and magnesium data and previously analyzed sodium data.
- Please fax me the quality analysis or any background information you have for the potassium analysis. Our results for potassium are an order of magnitude higher than anticipated and we would like to understand why.

Thank you very much. If you have any questions, please call me.

Sincerely,
Shelley Kunasek

4221 Wilshire Boulevard, Suite 480 Los Angeles, California 90010 (323) 933-6111 *fax* 934-1289 email: esa.la@esassoc.com

Chain of Custody Record

fx (323) 934-1289

Environmental Science Associates
4221 Wilshire Boulevard, Suite 480
Los Angeles, CA 90010
(323) 933-6111
www.esassoc.com

Project Number 200481 - Phase 7	Sample Collected By TCB, JJH, SAK
Project Name LACSD	Sample Date 9/18/01
Site Name Nebeker Ranch	

Sample I.D.	Field Sample Identification and Sampling Information			Analysis Required															
	Sample Type	Date	Time	Sodium (7708)	Nitrate (352.1)	Total Nitrogen (351.2)	Phosphate (365.2)	Potassium (7610)	Boron (6010)	CAM 17 Metals (7000 series)	TOC (415.1) → 9060	pH (150.1) → 9045	Conductivity (120.1) → mod.						
001 BG1-0.5	soil	9/18/01	2:00	X	X	X	X	X	X	X	X	X	X						
002 BG1-1.5			2:00	X	X	X	X	X	X	X	X	X	X						
003 BG1-3.5			2:00	X	X	X	X	X	X	X	X	X	X						
004 BG2-0.5			2:30	X	X	X	X	X	X	X	X	X	X						
005 BG2-1.5			2:30	X	X	X	X	X	X	X	X	X	X						
006 BG2-3.0			2:30	X	X	X	X	X	X	X	X	X	X						
007 B1-0.5			10:30	X	X	X	X	X	X	X	X	X	X						
008 B1-1.5			10:30	X	X	X	X	X	X	X	X	X	X						
009 B1-3.5			10:30	X	X	X	X	X	X	X	X	X	X						
- - -																			

Method of Shipment	Remarks	Relinquished by: (Sign, Date & Print) 9/19/01 10:10 Shelley Kunasek, Shelley Kunasek	~~Relinquished~~ by: (Sign, Date & Print) Received 9/19/01 10:10 SAMI AJ ABDNA
Samples Shipped to:		11:07	Sokphy Born 9/19/01 11:09

Chain of Custody Record

Environmental Science Associates
4221 Wilshire Boulevard, Suite 480
Los Angeles, CA 90010
(323) 933-6111
www.esassoc.com

Project Number 200481 - Phase 7

Project Name LACSD

Site Name Nebeker Ranch

Sample Collected By TCB, JJH, SAK

Sample Date 9/18/01

Analysis Required

	Sample I.D.	Field Sample Identification and Sampling Information: Sample Type	Date	Time	Sodium (7700)	Nitrate (352.1)	Total Nitrogen (351.2)	Phosphate (365.2)	Potassium (7610)	Boron (6010)	CAM 17 Metals (7000 Series)	TOC (415.1)	pH (150.1)	Conductivity (120.1)
010	B2-0.5	soil	9/18/01	10:45	X	X	X	X	X	X	X	X	X	X
011	B2-1.5			10:45										
012	B2-3.5			10:45										
013	B3-0.5			11:35										
014	B3-1.5			11:35										
015	B3-3.5			11:35										
016	B3-6.5			11:35										
017	B4-0.5			1:30										
018	B4-1.5			1:30										
019	B4-3.5			1:30										

Method of Shipment

Samples Shipped to: ----------

Remarks

Relinquished by: (Sign, Date & Print)
Shelley Kunsek 9/19/01
11-99

~~Relinquished~~ by: (Sign, Date & Print) Received
Sotyhy Bun 9/19/01 11:09

Chain of Custody Record

Environmental Science Associates
4221 Wilshire Boulevard, Suite 480
Los Angeles, CA 90010
(323) 933-6111
www.esassoc.com

Project Number: 200481 - Phase 7	Sample Collected By: TCB, JJH, SAK
Project Name: LACSD	Sample Date: 9/18/01
Site Name: Nebeker Ranch	

Sample I.D.	Field Sample Identification and Sampling Information			Analysis Required															
	Sample Type	Date	Time	Sodium (7700)	Nitrate (352.1)	Total Nitrogen (351.2)	Phosphate (365.2)	Potassium (7610)	Boron (6010)	CAM 17 Metals (7000 series)	TOC (415.1)	pH (150.1)	Conductivity (120.1)						
B5-0.5	Soil	9/18/01	11:00	X	X	X	X	X	X	X	X	X	X						
B6-0.5	"	"	2:00	X	X	X	X	X	X	X	X	X	X						

Method of Shipment	Remarks	Relinquished by: (Sign, Date & Print)	Relinquished by: (Sign, Date & Print) Received
Samples Shipped to:		Shelley Kwasek 9/19/01 TM 11-09	Sami Aljibury 9-19-01 Sophia Bun 9/19/01 11

FRUIT GROWERS LABORATORY, INC.

ANALYTICAL CHEMISTS

July 6, 2001

Lab ID : SP 105802-01
Customer ID: 2-14223

Nebeker Ranch Inc.
Attn: Gene Nebeker
400 North Rockingham
Los Angeles, CA 90049

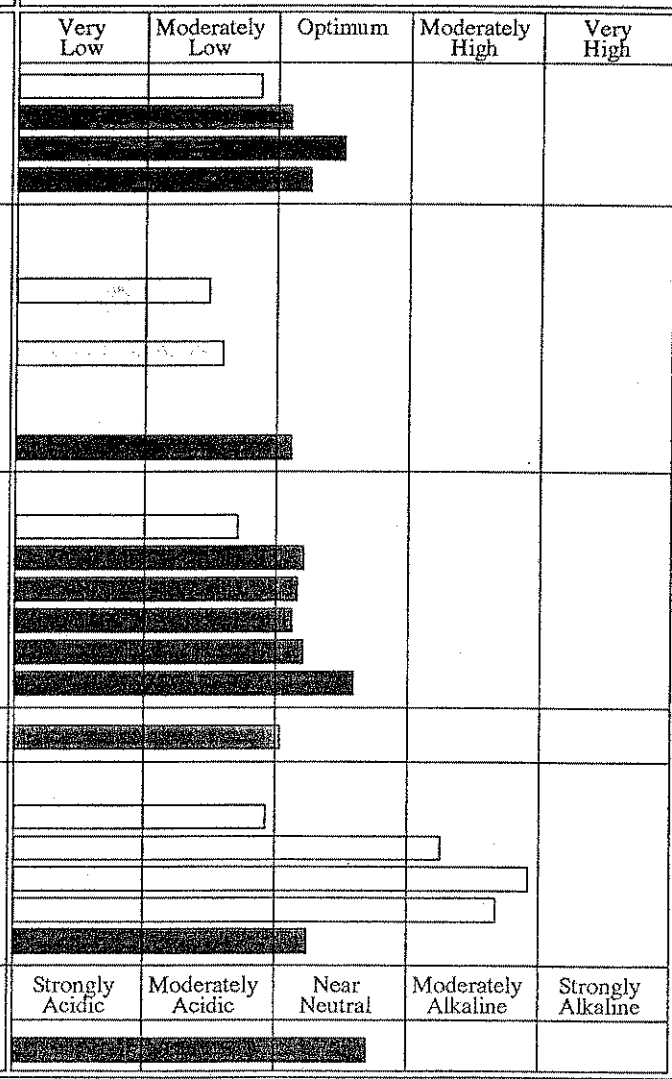
Sampled On : June 26, 2001
Sampled By : Jack Craemer
Received On: June 26, 2001
Depth : 0-12"

Description : Section 10, 0-12"
Project : Nebeker Ranch, Inc.

ALFALFA SOIL ANALYSIS

Test Description	Result		Optimum Range
Primary Nutrients			
Nitrate-Nitrogen	9.4	PPM	10 - 40
Phosphorus	17	PPM	12 - 60
Potassium (Exch)	340	PPM	80 - 600
Potassium (Sol)	0.44	meq/L	0.25 - 1.0
Secondary Nutrients			
Calcium (Exch)	1000	PPM	---
Calcium (Sol)	1.5	meq/L	2.0 - 20
Magnesium (Exch)	280	PPM	---
Magnesium (Sol)	0.8	meq/L	1.0 - 20
Sodium (Exch)	180	PPM	---
Sodium (Sol)	8.44	meq/L	See SAR
Sulfate	2.4	meq/L	0.1 - 20
Micro Nutrients			
Zinc	0.5	PPM	0.7 - 4.0
Manganese	9.7	PPM	1.4 - 40
Iron	15.2	PPM	6.0 - 60
Copper	0.8	PPM	0.2 - 5.0
Boron	0.66	PPM	0.3 - 2.0
Chloride	3.31	meq/L	0.1 - 5.5
CEC	9.15	meq/100g	Variable
% Base Saturation			
CEC - Calcium	56.8	%	60 - 80
CEC - Magnesium	25.1	%	10 - 20
CEC - Potassium	9.6	%	2 - 5
CEC - Sodium	8.4	%	0 - 5
CEC - Hydrogen	0.0	%	0 - 3
pH	7.2	---	6.5 - 8.2

Graphical Results Presentation



Good Problem

Table continued next page...

Corporate Offices & Laboratory
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FAX: 805/525-4172

Office & Laboratory
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Stockton, CA 95215
TEL: 209/942-0181
FAX: 209/942-0423

Field Office
Visalia, CA
TEL: 559/734-9473
FAX: 559/734-8435

July 6, 2001

Nebeker Ranch Inc.

Lab ID : SP 105802-01
Customer ID: 2-14223
Description : Section 10, 0-12"

ALFALFA SOIL ANALYSIS

Test Description	Result	Optimum Range	Graphical Results Presentation
Others			Satisfactory | Possible Problem | Moderate Problem | Increasing Problem
Soil Salinity	1.12 mmhos/cm	0.1 - 3.5	
SAR	7.9	0.1 - 6	
Limestone	ND %	0 - 0.1	
Lime Requirement	0.0 Tons/AF	---	0 | 1 | 2 | 3 | 4 | 5 | 6
Moisture	8.9 %	1/2 Satn. %	Very Low | Moderately Low | Optimum | Moderately High | Very High
Saturation	23.7 %	20 - 60	Loamy Sand | Sandy Loam | Loam | Silt Loam | Clay Loam | Clay | Organic

Good Problem

FRUIT GROWERS LABORATORY, INC.

DHN:meh

Darrell H. Nelson, President

ANALYTICAL CHEMISTS

July 6, 2001

Lab ID : SP 105802-02
Customer ID: 2-14223

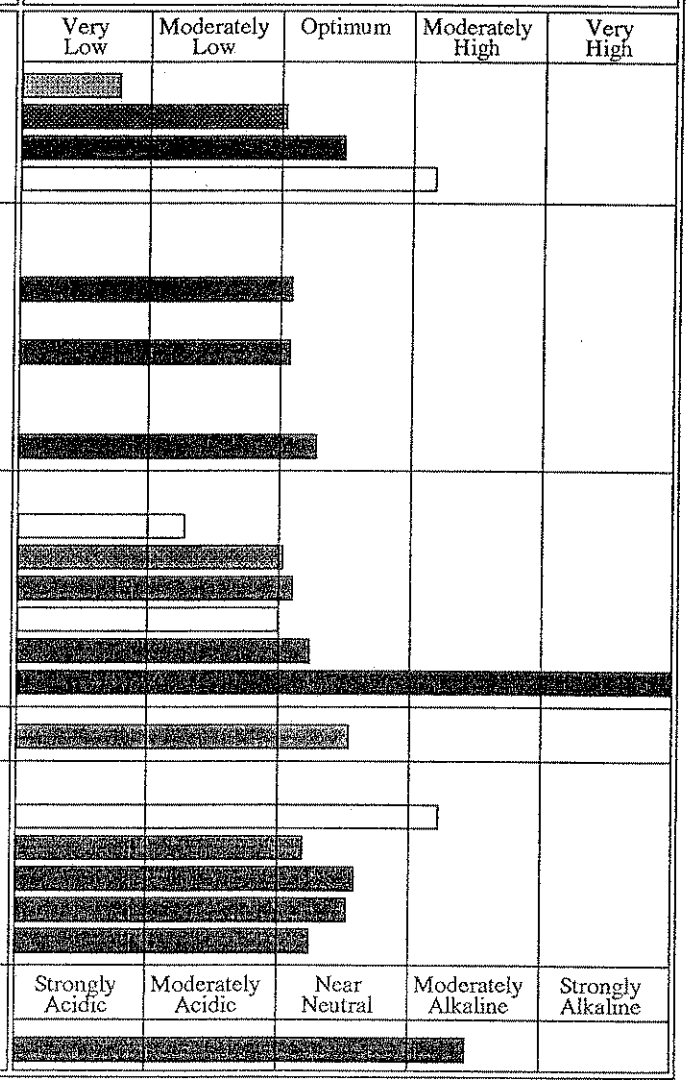
Nebeker Ranch Inc.
Attn: Gene Nebeker
400 North Rockingham
Los Angeles, CA 90049

Sampled On : June 26, 2001
Sampled By : Jack Craemer
Received On: July 3, 2001
Depth : 13-36"

Description : Section 10, 13-36"
Project : Nebeker Ranch, Inc.

ALFALFA SOIL ANALYSIS

Test Description	Result		Optimum Range
Primary Nutrients			
Nitrate-Nitrogen	3.3	PPM	10 - 40
Phosphorus	14	PPM	12 - 60
Potassium (Exch)	330	PPM	80 - 600
Potassium (Sol)	1.18	meq/L	0.25 - 1.0
Secondary Nutrients			
Calcium (Exch)	3700	PPM	---
Calcium (Sol)	3.7	meq/L	2.0 - 20
Magnesium (Exch)	330	PPM	---
Magnesium (Sol)	2.5	meq/L	1.0 - 20
Sodium (Exch)	110	PPM	---
Sodium (Sol)	10.0	meq/L	See SAR
Sulfate	5.7	meq/L	0.1 - 20
Micro Nutrients			
Zinc	0.2	PPM	0.7 - 4.0
Manganese	2.8	PPM	1.4 - 40
Iron	12.0	PPM	6.0 - 60
Copper	0.2	PPM	0.2 - 5.0
Boron	0.71	PPM	0.3 - 2.0
Chloride	10.4	meq/L	0.1 - 5.5
CEC	22.6	meq/100g	Variable
% Base Saturation			
CEC - Calcium	82.3	%	60 - 80
CEC - Magnesium	11.9	%	10 - 20
CEC - Potassium	3.8	%	2 - 5
CEC - Sodium	2.2	%	0 - 5
CEC - Hydrogen	0.0	%	0 - 3
pH	7.9	---	6.5 - 8.2



Good Problem

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TEL: 209/942-0181
FAX: 209/942-0423

Field Office
Visalia, CA
TEL: 559/734-9473
FAX: 559/734-8435

July 6, 2001

Nebeker Ranch Inc.

Lab ID : SP 105802-02
Customer ID: 2-14223
Description : Section 10, 13-36"

ALFALFA SOIL ANALYSIS

Test Description	Result	Optimum Range	Graphical Results Presentation
Others			Satisfactory | Possible Problem | Moderate Problem | Increasing Problem
Soil Salinity	2.02 mmhos/cm	0.1 - 3.5	
SAR	5.7	0.1 - 6	
Limestone	1.7 %	0 - 0.1	
Lime Requirement	0.0 Tons/AF	---	0 | 1 | 2 | 3 | 4 | 5 | 6
Moisture	8.1 %	1/2 Satn. %	Very Low | Moderately Low | Optimum | Moderately High | Very High
Saturation	26.4 %	20 - 60	Loamy Sand | Sandy Loam | Loam | Silt Loam | Clay Loam | Clay | Organic

Good Problem

FRUIT GROWERS LABORATORY, INC.

DHN:meh

Darrell H. Nelson, President

ANALYTICAL CHEMISTS

July 6, 2001

Nebeker Ranch Inc.
Attn: Gene Nebeker
400 North Rockingham
Los Angeles, CA 90049

Lab ID : SP 105802-03
Customer ID: 2-14223

Sampled On : June 26, 2001
Sampled By : Jack Craemer
Received On: July 3, 2001
Depth : 0-12"

Description : Field 10, 0-12"
Project : Nebeker Ranch, Inc.

ALFALFA SOIL ANALYSIS

Test Description	Result		Optimum Range
Primary Nutrients			
Nitrate-Nitrogen	15.2	PPM	10 - 40
Phosphorus	19	PPM	12 - 60
Potassium (Exch)	120	PPM	80 - 600
Potassium (Sol)	0.15	meq/L	0.25 - 1.0
Secondary Nutrients			
Calcium (Exch)	1200	PPM	---
Calcium (Sol)	3.2	meq/L	2.0 - 20
Magnesium (Exch)	190	PPM	---
Magnesium (Sol)	1.2	meq/L	1.0 - 20
Sodium (Exch)	130	PPM	---
Sodium (Sol)	8.4	meq/L	See SAR
Sulfate	2.9	meq/L	0.1 - 20
Micro Nutrients			
Zinc	0.5	PPM	0.7 - 4.0
Manganese	7.3	PPM	1.4 - 40
Iron	17.8	PPM	6.0 - 60
Copper	0.5	PPM	0.2 - 5.0
Boron	0.63	PPM	0.3 - 2.0
Chloride	4.28	meq/L	0.1 - 5.5
CEC	8.59	meq/100g	Variable
% Base Saturation			
CEC - Calcium	71.0	%	60 - 80
CEC - Magnesium	18.6	%	10 - 20
CEC - Potassium	3.6	%	2 - 5
CEC - Sodium	6.8	%	0 - 5
CEC - Hydrogen	0.0	%	0 - 3
pH	7.0	---	6.5 - 8.2

Graphical Results Presentation

Very Low	Moderately Low	Optimum	Moderately High	Very High

Strongly Acidic	Moderately Acidic	Near Neutral	Moderately Alkaline	Strongly Alkaline

Good Problem

Table continued next page...

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FAX: 209/942-0423

Field Office
Visalia, CA
TEL: 559/734-9473
FAX: 559/734-8435

July 6, 2001

Nebeker Ranch Inc.

Lab ID : SP 105802-03
Customer ID: 2-14223
Description : Field 10, 0-12"

ALFALFA SOIL ANALYSIS

Test Description	Result	Optimum Range	Graphical Results Presentation
Others			Satisfactory | Possible Problem | Moderate Problem | Increasing Problem
Soil Salinity	1.36 mmhos/cm	0.1 - 3.5	
SAR	5.7	0.1 - 6	
Limestone	ND %	0 - 0.1	
Lime Requirement	0.0 Tons/AF	---	0 | 1 | 2 | 3 | 4 | 5 | 6
Moisture	11.6 %	1/2 Satn. %	Very Low | Moderately Low | Optimum | Moderately High | Very High
Saturation	27.8 %	20 - 60	Loamy Sand | Sandy Loam | Loam | Silt Loam | Clay Loam | Clay | Organic

Good Problem

FRUIT GROWERS LABORATORY, INC.

DHN:meh

Darrell H. Nelson, President

FRUIT GROWERS LABORATORY, INC.

ANALYTICAL CHEMISTS

July 6, 2001

Nebeker Ranch Inc.
Attn: Gene Nebeker
400 North Rockingham
Los Angeles, CA 90049

Description : Field 10, 13-36"
Project : Nebeker Ranch, Inc.

Lab ID : SP 105802-04
Customer ID: 2-14223

Sampled On : June 26, 2001
Sampled By : Jack Craemer
Received On: July 3, 2001
Depth : 13-36"

ALFALFA SOIL ANALYSIS

Test Description	Result		Optimum Range	Graphical Results Presentation
				Very Low / Moderately Low / Optimum / Moderately High / Very High
Primary Nutrients				
Nitrate-Nitrogen	7.5	PPM	10 - 40	
Phosphorus	7	PPM	12 - 60	
Potassium (Exch)	80	PPM	80 - 600	
Potassium (Sol)	0.07	meq/L	0.25 - 1.0	
Secondary Nutrients				
Calcium (Exch)	2900	PPM	---	
Calcium (Sol)	3.1	meq/L	2.0 - 20	
Magnesium (Exch)	150	PPM	---	
Magnesium (Sol)	0.7	meq/L	1.0 - 20	
Sodium (Exch)	110	PPM	---	
Sodium (Sol)	7.2	meq/L	See SAR	
Sulfate	2.7	meq/L	0.1 - 20	
Micro Nutrients				
Zinc	0.2	PPM	0.7 - 4.0	
Manganese	2.1	PPM	1.4 - 40	
Iron	9.7	PPM	6.0 - 60	
Copper	0.3	PPM	0.2 - 5.0	
Boron	0.43	PPM	0.3 - 2.0	
Chloride	4.65	meq/L	0.1 - 5.5	
CEC	16.6	meq/100g	Variable	
% Base Saturation				
CEC - Calcium	88.6	%	60 - 80	
CEC - Magnesium	7.2	%	10 - 20	
CEC - Potassium	1.2	%	2 - 5	
CEC - Sodium	2.8	%	0 - 5	
CEC - Hydrogen	0.0	%	0 - 3	
				Strongly Acidic / Moderately Acidic / Near Neutral / Moderately Alkaline / Strongly Alkaline
pH	7.9	---	6.5 - 8.2	

Good Problem

Table continued next page...

Corporate Offices & Laboratory
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Santa Paula, CA 93061-0272
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Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: 209/942-0181

Field Office
Visalia, CA
TEL: 559/734-9473
FAX: 559/734-8435

July 6, 2001

Nebeker Ranch Inc.

Lab ID : SP 105802-04
Customer ID: 2-14223
Description : Field 10, 13-36"

ALFALFA SOIL ANALYSIS

Test Description	Result	Optimum Range	Graphical Results Presentation
Others			Satisfactory | Possible Problem | Moderate Problem | Increasing Problem
Soil Salinity	1.22 mmhos/cm	0.1 - 3.5	
SAR	5.2	0.1 - 6	
Limestone	0.5 %	0 - 0.1	
Lime Requirement	0.0 Tons/AF	---	0 | 1 | 2 | 3 | 4 | 5 | 6
Moisture	9.4 %	1/2 Satn. %	Very Low | Moderately Low | Optimum | Moderately High | Very High
Saturation	22.9 %	20 - 60	Loamy Sand | Sandy Loam | Loam | Silt Loam | Clay Loam | Clay | Organic

Good Problem

FRUIT GROWERS LABORATORY, INC.

Darrell H. Nelson, President

DHN:meh

FRUIT GROWERS LABORATORY, INC.

ANALYTICAL CHEMISTS

July 6, 2001

Nebeker Ranch Inc.
Attn: Gene Nebeker
400 North Rockingham
Los Angeles, CA 90049

Lab ID : SP 105802-05
Customer ID: 2-14223

Sampled On : June 26, 2001
Sampled By : Jack Craemer
Received On: July 3, 2001
Depth : 0-12"

Description : Field 5A, 0-12"
Project : Nebeker Ranch, Inc.

ALFALFA SOIL ANALYSIS

Test Description	Result		Optimum Range	Graphical Results Presentation
				Very Low / Moderately Low / Optimum / Moderately High / Very High
Primary Nutrients				
Nitrate-Nitrogen	12.9	PPM	10 - 40	
Phosphorus	34	PPM	12 - 60	
Potassium (Exch)	190	PPM	80 - 600	
Potassium (Sol)	0.12	meq/L	0.25 - 1.0	
Secondary Nutrients				
Calcium (Exch)	2600	PPM	---	
Calcium (Sol)	3.4	meq/L	2.0 - 20	
Magnesium (Exch)	360	PPM	---	
Magnesium (Sol)	1.2	meq/L	1.0 - 20	
Sodium (Exch)	230	PPM	---	
Sodium (Sol)	8.9	meq/L	See SAR	
Sulfate	3.3	meq/L	0.1 - 20	
Micro Nutrients				
Zinc	0.6	PPM	0.7 - 4.0	
Manganese	10.7	PPM	1.4 - 40	
Iron	18.7	PPM	6.0 - 60	
Copper	0.8	PPM	0.2 - 5.0	
Boron	0.67	PPM	0.3 - 2.0	
Chloride	4.03	meq/L	0.1 - 5.5	
CEC	17.4	meq/100g	Variable	
% Base Saturation				
CEC - Calcium	74.1	%	60 - 80	
CEC - Magnesium	17.2	%	10 - 20	
CEC - Potassium	2.8	%	2 - 5	
CEC - Sodium	5.7	%	0 - 5	
CEC - Hydrogen	0.0	%	0 - 3	
				Strongly Acidic / Moderately Acidic / Near Neutral / Moderately Alkaline / Strongly Alkaline
pH	7.4	---	6.5 - 8.2	

Good Problem

Table continued next page...

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FAX: 209/942-9428

Field Office
Visalia, CA
TEL: 559/734-9473
FAX: 559/734-8435

July 6, 2001

Nebeker Ranch Inc.

Lab ID : SP 105802-05
Customer ID: 2-14223
Description : Field 5A, 0-12"

ALFALFA SOIL ANALYSIS

Test Description	Result	Optimum Range	Graphical Results Presentation
Others			Satisfactory | Possible Problem | Moderate Problem | Increasing Problem
Soil Salinity	1.32 mmhos/cm	0.1 - 3.5	
SAR	5.9	0.1 - 6	
Limestone	ND %	0 - 0.1	
Lime Requirement	0.0 Tons/AF	---	0 | 1 | 2 | 3 | 4 | 5 | 6
Moisture	14.3 %	1/2 Satn. %	Very Low | Moderately Low | Optimum | Moderately High | Very High
Saturation	35.7 %	20 - 60	Loamy Sand | Sandy Loam | Loam | Silt Loam | Clay Loam | Clay | Organic

Good Problem

FRUIT GROWERS LABORATORY, INC.

DHN:meh

Darrell H. Nelson, President

FRUIT GROWERS LABORATORY, INC.

ANALYTICAL CHEMISTS

July 6, 2001

Nebeker Ranch Inc.
Attn: Gene Nebeker
400 North Rockingham
Los Angeles, CA 90049

Lab ID : SP 105802-06
Customer ID: 2-14223

Sampled On : June 26, 2001
Sampled By : Jack Craemer
Received On: July 3, 2001
Depth : 13-36"

Description : Field 5A, 13-36"
Project : Nebeker Ranch, Inc.

ALFALFA SOIL ANALYSIS

Test Description	Result		Optimum Range	Graphical Results Presentation
				Very Low / Moderately Low / Optimum / Moderately High / Very High
Primary Nutrients				
Nitrate-Nitrogen	2.3	PPM	10 - 40	
Phosphorus	6	PPM	12 - 60	
Potassium (Exch)	60	PPM	80 - 600	
Potassium (Sol)	0.03	meq/L	0.25 - 1.0	
Secondary Nutrients				
Calcium (Exch)	3800	PPM	---	
Calcium (Sol)	1.2	meq/L	2.0 - 20	
Magnesium (Exch)	190	PPM	---	
Magnesium (Sol)	0.4	meq/L	1.0 - 20	
Sodium (Exch)	190	PPM	---	
Sodium (Sol)	7.7	meq/L	See SAR	
Sulfate	2.3	meq/L	0.1 - 20	
Micro Nutrients				
Zinc	0.2	PPM	0.7 - 4.0	
Manganese	2.1	PPM	1.4 - 40	
Iron	7.6	PPM	6.0 - 60	
Copper	0.3	PPM	0.2 - 5.0	
Boron	0.50	PPM	0.3 - 2.0	
Chloride	2.83	meq/L	0.1 - 5.5	
CEC	21.6	meq/100g	Variable	
% Base Saturation				
CEC - Calcium	88.0	%	60 - 80	
CEC - Magnesium	7.4	%	10 - 20	
CEC - Potassium	0.7	%	2 - 5	
CEC - Sodium	3.8	%	0 - 5	
CEC - Hydrogen	0.0	%	0 - 3	
				Strongly Acidic / Moderately Acidic / Near Neutral / Moderately Alkaline / Strongly Alkaline
pH	8.2	---	6.5 - 8.2	

Good Problem

Table continued next page...

Corporate Offices & Laboratory
PO Box 272 / 853 Corporation Street
Santa Paula, CA 93061-0272
TEL: 805/659-0910
FAX: 805/525-4173

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: 209/942-0181

Field Office
Visalia, CA
TEL: 559/734-9473
FAX: 559/734-8435

July 6, 2001

Nebeker Ranch Inc.

Lab ID : SP 105802-06
Customer ID: 2-14223
Description : Field 5A, 13-36"

ALFALFA SOIL ANALYSIS

Test Description	Result	Optimum Range	Graphical Results Presentation
Others			Satisfactory | Possible Problem | Moderate Problem | Increasing Problem
Soil Salinity	1.05 mmhos/cm	0.1 - 3.5	
SAR	8.6	0.1 - 6	
Limestone	2.7 %	0 - 0.1	
Lime Requirement	0.0 Tons/AF	---	0 | 1 | 2 | 3 | 4 | 5 | 6
Moisture	4.2 %	1/2 Satn. %	Very Low | Moderately Low | Optimum | Moderately High | Very High
Saturation	20.9 %	20 - 60	Loamy Sand | Sandy Loam | Loam | Silt Loam | Clay Loam | Clay | Organic

Good Problem

FRUIT GROWERS LABORATORY, INC.

Darrell H. Nelson, President

DHN:meh

FRUIT GROWERS LABORATORY, INC.

ANALYTICAL CHEMISTS

July 6, 2001

Nebeker Ranch Inc.
Attn: Gene Nebeker
400 North Rockingham
Los Angeles, CA 90049

Description : Field 3, 0-12"
Project : Nebeker Ranch, Inc.

Lab ID : SP 105802-07
Customer ID: 2-14223

Sampled On : June 26, 2001
Sampled By : Jack Craemer
Received On: July 3, 2001
Depth : 0-12"

ALFALFA SOIL ANALYSIS

Test Description	Result		Optimum Range	Graphical Results Presentation
				Very Low / Moderately Low / Optimum / Moderately High / Very High
Primary Nutrients				
Nitrate-Nitrogen	9.0	PPM	10 - 40	
Phosphorus	19	PPM	12 - 60	
Potassium (Exch)	130	PPM	80 - 600	
Potassium (Sol)	0.13	meq/L	0.25 - 1.0	
Secondary Nutrients				
Calcium (Exch)	1400	PPM	---	
Calcium (Sol)	2.4	meq/L	2.0 - 20	
Magnesium (Exch)	260	PPM	---	
Magnesium (Sol)	1.0	meq/L	1.0 - 20	
Sodium (Exch)	170	PPM	---	
Sodium (Sol)	9.4	meq/L	See SAR	
Sulfate	2.3	meq/L	0.1 - 20	
Micro Nutrients				
Zinc	0.6	PPM	0.7 - 4.0	
Manganese	6.8	PPM	1.4 - 40	
Iron	15.9	PPM	6.0 - 60	
Copper	0.6	PPM	0.2 - 5.0	
Boron	0.73	PPM	0.3 - 2.0	
Chloride	3.16	meq/L	0.1 - 5.5	
CEC	10.3	meq/100g	Variable	
% Base Saturation				
CEC - Calcium	68.9	%	60 - 80	
CEC - Magnesium	20.4	%	10 - 20	
CEC - Potassium	3.1	%	2 - 5	
CEC - Sodium	7.4	%	0 - 5	
CEC - Hydrogen	0.0	%	0 - 3	
				Strongly Acidic / Moderately Acidic / Near Neutral / Moderately Alkaline / Strongly Alkaline
pH	7.4	---	6.5 - 8.2	

Good Problem

Table continued next page...

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Visalia, CA
TEL: 559/734-9473
FAX: 559/734-8435

July 6, 2001

Nebeker Ranch Inc.

Lab ID : SP 105802-07
Customer ID: 2-14223
Description : Field 3, 0-12"

ALFALFA SOIL ANALYSIS

Test Description	Result	Optimum Range	Graphical Results Presentation
Others			Satisfactory | Possible Problem | Moderate Problem | Increasing Problem
Soil Salinity	1.34 mmhos/cm	0.1 - 3.5	
SAR	7.2	0.1 - 6	
Limestone	ND %	0 - 0.1	
Lime Requirement	0.0 Tons/AF	---	0 | 1 | 2 | 3 | 4 | 5 | 6
Moisture	13.4 %	1/2 Satn. %	Very Low | Moderately Low | Optimum | Moderately High | Very High
Saturation	26.0 %	20 - 60	Loamy Sand | Sandy Loam | Loam | Silt Loam | Clay Loam | Clay | Organic

Good Problem

FRUIT GROWERS LABORATORY, INC.

Darrell H. Nelson, President

DHN:meh

FRUIT GROWERS LABORATORY, INC.

ANALYTICAL CHEMISTS

July 6, 2001

Lab ID : SP 105802-08
Customer ID: 2-14223

Nebeker Ranch Inc.
Attn: Gene Nebeker
400 North Rockingham
Los Angeles, CA 90049

Sampled On : June 26, 2001
Sampled By : Jack Craemer
Received On: July 3, 2001
Depth : 13-36"

Description : Field 3, 13-36"
Project : Nebeker Ranch, Inc.

ALFALFA SOIL ANALYSIS

Test Description	Result		Optimum Range
Primary Nutrients			
Nitrate-Nitrogen	3.6	PPM	10 - 40
Phosphorus	10	PPM	12 - 60
Potassium (Exch)	70	PPM	80 - 600
Potassium (Sol)	0.05	meq/L	0.25 - 1.0
Secondary Nutrients			
Calcium (Exch)	3600	PPM	---
Calcium (Sol)	0.7	meq/L	2.0 - 20
Magnesium (Exch)	380	PPM	---
Magnesium (Sol)	0.3	meq/L	1.0 - 20
Sodium (Exch)	430	PPM	---
Sodium (Sol)	12.8	meq/L	See SAR
Sulfate	2.7	meq/L	0.1 - 20
Micro Nutrients			
Zinc	0.2	PPM	0.7 - 4.0
Manganese	1.2	PPM	1.4 - 40
Iron	7.2	PPM	6.0 - 60
Copper	0.3	PPM	0.2 - 5.0
Boron	0.66	PPM	0.3 - 2.0
Chloride	5.24	meq/L	0.1 - 5.5
CEC	23.2	meq/100g	Variable
% Base Saturation			
CEC - Calcium	78.0	%	60 - 80
CEC - Magnesium	13.4	%	10 - 20
CEC - Potassium	0.8	%	2 - 5
CEC - Sodium	8.0	%	0 - 5
CEC - Hydrogen	0.0	%	0 - 3
pH	8.3	---	6.5 - 8.2

Graphical Results Presentation

Very Low	Moderately Low	Optimum	Moderately High	Very High

Strongly Acidic	Moderately Acidic	Near Neutral	Moderately Alkaline	Strongly Alkaline

Good Problem

Table continued next page...

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TEL: 559/734-9473
FAX: 559/734-8435

July 6, 2001

Nebeker Ranch Inc.

Lab ID : SP 105802-08
Customer ID: 2-14223
Description : Field 3, 13-36"

ALFALFA SOIL ANALYSIS

Test Description	Result	Optimum Range	Graphical Results Presentation
Others			Satisfactory | Possible Problem | Moderate Problem | Increasing Problem
Soil Salinity	1.48 mmhos/cm	0.1 - 3.5	
SAR	18.1	0.1 - 6	
Limestone	17.2 %	0 - 0.1	
Lime Requirement	0.0 Tons/AF	---	0 | 1 | 2 | 3 | 4 | 5 | 6
Moisture	8.8 %	1/2 Satn. %	Very Low | Moderately Low | Optimum | Moderately High | Very High
Saturation	26.7 %	20 - 60	Loamy Sand | Sandy Loam | Loam | Silt Loam | Clay Loam | Clay | Organic

Good Problem

FRUIT GROWERS LABORATORY, INC.

DHN:meh

Darrell H. Nelson, President