

Harold Snyder
P.O. Box 926
Nipomo, CA 93444
(805) 929-2455 H

January 9, 2008

Nipomo Community Services District
148 Wilson Street
P.O. Box 326
Nipomo, CA 93444

(805) 929-1133 Phone
(805) 929-1932 Fax

Dear Bruce Buel:

At the January 9th 2008 NCSD board meeting it was reported that the Fugro report on the Southland Sewer plant effluent and the interaction with the Nipomo creek flows has been completed.

I am requesting a copy of that report.

Thank You



Harold Snyder

NIPOMO COMMUNITY

BOARD MEMBERS

MICHAEL WINN, PRESIDENT
JAMES HARRISON, VICE PRESIDENT
CLIFFORD TROTTER, DIRECTOR
ED EBY, DIRECTOR
LARRY VIERHEILIG, DIRECTOR



SERVICES DISTRICT

STAFF

BRUCE BUEL, GENERAL MANAGER
LISA BOGNUDA, ASSISTANT ADMINISTRATOR
JON SEITZ, GENERAL COUNSEL

148 SOUTH WILSON STREET POST OFFICE BOX 326 NIPOMO, CA 93444 - 0326
(805) 929-1133 FAX (805) 929-1932 Website address: NCSD.CA.GOV

January 17, 2008

Mr. Harold Snyder
P. O. Box 926
Nipomo, CA 93444

SUBJECT: JANUARY 9, 2008 PUBLIC RECORDS REQUEST RE FUGRO REPORT

Dear Mr. Snyder,

Attached is a copy of the Fugro report that you requested.

If you have any questions, please don't hesitate to call me.

Sincerely,

NIPOMO COMMUNITY SERVICES DISTRICT



Bruce Buel
General Manager

CC: Public Records Request File
Chronological File

T:\DOCUMENTS\STAFF FOLDERS\BRUCE\LETTERS\080117Snyder1.DOC



4820 McGrath Street, Suite 100
Ventura, California 93003-7778
Tel: (805) 650-7000
Fax: (805) 650-7010

December 20, 2007
Project No. 3596.001.02

PROJECT MEMORANDUM

To: Mr. Bruce Buel, General Manager
Copy: Paul Sorenson
From: David Gardner, C.Hg.
Subject: **Task 4 - Technical Memorandum Nipomo Creek Water Quality Sampling Program Phase 2 - Hydrogeologic Investigation of the Southland WWTF**

The purpose of the project memorandum is to describe the procedures followed, results obtained, and a preliminary interpretation of the fate and transport of wastewater constituents discharged to percolation ponds at the Nipomo Community Services District (CSD) Southland Wastewater Treatment Facility (WWTF). In this task, we identify water quality indicators of wastewater origin, with specific reference to the presence of such wastewater in Nipomo Creek. Prior work by Fugro (2007) and others (Cleath, 1997, 2000) suggested that wastewater discharged to the percolation ponds may be flowing, in part, laterally toward Nipomo Creek and re-emerging as surface water. Through discussions with staff at the Central Coast Regional Water Quality Control Board (RWQCB), ongoing and anticipated future operation of the WWTF needs to address potential water quality impacts to Nipomo Creek, if any.

To investigate the possible connection of wastewater discharges at the WWTF and surface water flow and quality in Nipomo Creek a series of composite samples of wastewater discharged to the percolation ponds were obtained. A sampling event was also conducted at five stations along Nipomo Creek. Water quality samples were also obtained from two shallow groundwater monitoring wells located adjacent the percolation pond. Procedures for sample collection are described in this project memorandum. Constituents chosen for analysis were based, in part, on the USGS Water Resources Investigations Report 03-4279, "Use of Water Quality Indicators and Environmental Tracers to Determine the Fate and Transport of Recyclable Water in Los Angeles County, California." The USGS report was used for guidance only.

A summary of the water quality data obtained is presented in tabular form, in Stiff diagrams, and in a Piper diagram for the purpose of comparative analysis. Mixing model calculations for chloride ions were applied to grossly estimate the percentage of wastewater in surface water in Nipomo Creek.



FIELD SAMPLING PROCEDURES

A traverse of Nipomo Creek was conducted on Monday, October 22nd, from upstream to downstream of a stretch adjacent the Southland WWTF. Sampling stations are shown on Plate 1 - Study Area Map. During this event, flow in the Nipomo Creek was noted and water quality samples were collected at five locations (Plate 1 and Table 1).

Surface water flow in Nipomo Creek was determined by measuring the width and depth along a cross section of the channel at the sample location point. A float was timed over a defined distance moving down the creek. Discharge was calculated using cross sectional creek area multiplied by flow rate. A summary of analytical results are shown on Table 1 - Summary of Water Quality Data.

Field analysis of surface water samples were obtained for pH (Oakton Con-10), temperature (Oakton Con-10), electrical conductivity (YSI Model 33 S-C-T Meter - with temperature correction) and dissolved oxygen (DO; Hach LDO-HQ10 Oxygen Sensor - with temperature correction). Each instrument was calibrated prior to use. Measurements were recorded from the center of the water column, and in the case of DO the probe was agitated during reading (to prevent underestimation of the reading).

Wastewater discharged to the Southland WWTF percolation ponds was sampled by CSD staff using a composite peristaltic type sampler pump over a 16 hour period. Such sampling was performed weekly (commencing every Tuesday afternoon) for a period of one month. The analytical results of two such composite samples are presented in the report.

Samples from monitoring wells MW-1 and MW-3 were obtained on October 18 and October 23, 2007 as part of an aquifer testing program. Nipomo CSD staff collected water quality samples. As with the wastewater and surface water samples, the monitoring well samples were collected in plastic sample containers, labeled with well identification, date and time, and transported under chain-of-custody documentation to FGL Environmental in Santa Paula, California. All laboratory analytical data are provided as Attachment 1 - Laboratory Analytical Data.

The constituents sampled for were generally as follows:

- **Anions:** Chloride, Sulfate, Ammonia, Nitrate, Nitrite, Total Nitrogen, Phosphate, Bromide, Alkalinity;
- **Cations:** Calcium, Sodium, Magnesium, Potassium, Boron, Zinc;
- **Other Chemical Constituents:** MBAS, Total Dissolved Solids (TDS); and
- **Physical Parameters:** Conductivity (Field and Laboratory), Dissolved Oxygen (DO), Temperature, pH, creek flow volume.



Table 1. Summary of Water Quality Data

Constituent (mg/l or as noted)	Method	SW-1	SW-2	SW-3	SW-4	SW-5	MW-1	MW-3	Effluent	Effluent	Eureka Well
		10/22/2007	10/22/2007	10/22/2007	10/22/2007	10/22/2007	10/18/2007	10/23/2007	10/24/2007	10/31/2007	8/8/2007
Location: Northing	GPS	3878462	3878316	3878049	3877918	3877064	-	-	-	-	-
Location: Easting	GPS	10731228	10731324	10731576	10731693	10731825	-	-	-	-	-
Elevation	Map	264	263	260	259.5	259	-	-	-	-	-
Flow (gpm)	Field	9	28	N/D	N/D	N/D	-	-	-	-	-
Conductivity (uS/cm)	Field	1110	1000	1290	1390	1300	--	--	-	-	-
Conductivity (uS/cm)	SM2510B	1400	1280	1580	1600	1620	1820	1680	1900	-	1030
Temperature (°C)	Field	15.7	14.5	15.7	16.3	15.6	17.3	16.7	15	11.5	-
Dissolved Oxygen (DO)	Field	4.3	4.3	16	8.8	1	0.4	4.7	4.8	7.3	-
Total Dissolved Solids	SM2540C	900	780	1040	1030	1110	1210	1090	1110	1020	750
Chloride	EPA 300.0	155	120	176	185	203	236	218	224	219	44
Boron	EPA 200.7	<0.1	<0.1	0.2	0.1	<0.1	0.4	0.3	0.4	0.6	<0.1
Ammonia (as NH ₃ -N)	SM4500	<0.2	<0.2	<0.2	<0.2	0.3	0.9	<0.2	44	34	--
MBAS	SM5540c	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	ND	<0.1	<0.1
Phosphate	EPA 300.0	<0.5	<0.5	<0.5	<0.5	1.9	1.6	<0.5	14.5	15.1	--
Nitrate	EPA 300.0	18	26.9	46.5	41.2	29.5	114	76.7	ND	3.1	4.7
pH (no units)	Field	7.52	7.53	8.31	7.93	7.15	6.42	6.46	8.01	7.9	7.2
Bromide	-	0.59	0.44	0.33	0.33	0.35	0.28	<0.03	0.23	0.32	--
Alkalinity (as CaCO ₃)	SM2320B	380	330	320	330	250	200	200	350	340	150
Calcium	EPA 200.7	93	80	93	89	101	98	87	85	77	109
Sodium	EPA 200.7	148	107	159	162	182	223	215	205	193	55
Magnesium	EPA 200.7	55	54	61	57	41	44	41	36	33	43
Potassium	EPA 200.7	3	1	2	1	2	15	3	26	24	3
Zinc	EPA 200.7	0.02	<0.02	<0.02	<0.02	<0.02	0.05	0.21	0.06	0.05	<0.02
Sulfate	EPA 300.0	136	144	201	205	250	270	260	250	250	333
Nitrite	EPA 300.0	<0.3	<0.3	0.3	<0.3	<0.3	<0.3	<0.3	ND	<0.3	<0.1
Total Nitrogen	EPA 300.0	<0.5	<0.5	<0.5	0.6	1	1.6	<0.5	38	36	--
Bicarbonate	SM2320B	460	400	400	410	310	240	240	420	420	190
Carbonate	SM2320B	0	0	0	0	0	0	0	0	0	0



DISCUSSION

Wastewater discharged to the Southland percolation ponds (based on composite samples of the effluent obtained on October 24 and October 31, 2007) is sodium-bicarbonate-chloride in chemical character with total dissolved solids concentrations of about 1100 milligrams per liter (mg/l). Nitrogen in the effluent is in the unoxidized ammonia form. Chloride ion concentrations, at some 225 mg/l, are distinctly elevated relative to groundwater. Typical average chloride ion concentrations in the CSD groundwater are in the 50 mg/l range (2006 Nipomo CSD Consumer Confidence Report). The elevated chloride ion concentrations in the effluent are directly related to water softener system regenerate brine. The observed increase in chloride ions in the wastewater is consistent with levels observed in other communities that rely on water softeners to reduce the hardness of water.

As indicated on Plate 1, the water quality of the shallow aquifer system (MW-1 and MW-3) immediately adjacent the Southland WWTF percolation ponds mimics the chemical character of the wastewater with respect to TDS concentrations, chloride ion concentrations, and other constituents. This is to be expected given the shallow perforated intervals in these monitoring wells, starting at depths of 35 and 50 feet, respectively, and close proximity of the monitoring wells to the percolation sites. The groundwater in the monitoring wells is essentially treated wastewater. Nitrogen species have been oxidized from ammonia to nitrate, with nitrate ion concentrations of 77 mg/l to 114 mg/l.

Surface water samples collected from the stations along Nipomo Creek (refer to Plate 1) are interpreted to represent various mixtures of native groundwater and effluent. The Stiff diagram at SW-1 is of a sodium calcium bicarbonate chemical. The chemical character of surface water in Nipomo Creek progressively transforms along the direction of surface water flow (and adjacent and downstream of the percolation ponds) to a sodium-chloride-bicarbonate character. TDS, nitrate, and chloride ion concentrations also all increase down the flow path, suggesting an increasing percentage of effluent from the percolation ponds in the surface water samples.

The percentage of wastewater relative to native groundwater in the Nipomo Creek samples could not be determined using statistical or other analytical methods due to a general lack of information on the quality of native ground water (shallow aquifer) in the area of interest. We assume, based on earlier regional studies of the Nipomo Mesa (California State Department of Water Resources Bulletin No. 63-3) that native groundwater unaffected by wastewater discharged at the WWTF had TDS concentrations of about 500 mg/l, that the native groundwater was of sodium bicarbonate character, and that the chloride ion concentration was in the range of 50 mg/l. Qualitatively, the percentage of wastewater in the surface water samples collected as part of this study relative to native groundwater may fall within the range of 50 to 75 percent, variable by location and seasonal hydrologic conditions.

USGS WRI 03-4279 provides useful approaches to use water quality indicator parameters as environmental tracers relative to the transport of recycled water in aquifers in the Los Angeles area (Montebello forebay). Chloride ions, being a conservative chemical



constituent in ground water, is often used in mixing models to estimate percentages of wastewater relative to native groundwater. Chloride is a useful indicator parameter in that it reflects the addition of this salt to wastewater during the treatment process, as cited above. When used with bromide concentration values to remove the natural chloride, “excess” chloride can be calculated and an estimate of wastewater as a percentage of ground water made. Table 2 - Summary of Excess Chloride Values and Predicted Wastewater Percentages indicates a range of wastewater in the Nipomo Creek samples from about 0 to 65 percent. The results are consistent with, the more qualitative conclusions based on the water quality data and graphical depictions (i.e., Stiff diagrams).

From the above we conclude that wastewater represents a significant component of the water sampled at SW-3, SW-4, and SW-5 in Nipomo Creek as part of this study. Obviously, as a percentage of ground water, the amount will vary seasonally and by location. We surmise that prior to discharge of wastewater in the percolation ponds there was relatively little ground water in the uppermost aquifer. What groundwater existed was likely thin lenses of perched ground water occurring above the confining layers. As the wastewater mound enlarged and spread in a radial manner from the point of discharge, mixing occurred with native ground water and with time the volume of wastewater in the shallow aquifer became a significant percentage of the total mass. We assume that some form of steady state discharge of wastewater to Nipomo Creek occurred a number of years ago, and will continue in direct proportion to the percolation of wastewater in the ponds.

Table 2. Summary of Excess Chloride Values and Calculated Wastewater Percentages

Sample	Bromide (mg/l)	Chloride (mg/l)	Excess Chloride in Sample (mg/l)	Excess Chloride in Wastewater (mg/l)	Percentage (%) of Wastewater
SW-1	.59	155	0	158	0
SW-2	.44	120	0	158	0
SW-3	.33	176	81	158	51
SW-4	.33	185	90	158	57
SW-5	.35	203	103	158	65
MW-1	.28	236	156	158	99
MW-3	<0.03	218	-	158	-
Effluent	.23	224	158	158	100
Eureka Well	.17	50	1	158	1*

Notes: - Bromide Value inexplicably low (<0.03 mg/l), therefore calculation was not appropriate.
 * Well not influenced by wastewater, non-zero value due to accuracy of analytical method.
 All values accurate to ±10%



REFERENCES

Cleath and Associates (1997), *Groundwater Flow from Percolation Ponds*, letter, prepared for Nipomo Community Services District, May 22.

_____ (1997), *Test Hole Results and Recommended Monitoring Well Locations for the Nipomo CSD Wastewater Disposal Site*, prepared for Garing, Taylor and Associates, January 13.

Fugro West, Inc. (2007), "Assessment of the Potential for Extracting Discharge Water from Beneath the Southland Wastewater Treatment Facility, Nipomo, California," prepared for Nipomo Community Services District, November.

_____ (2007), "Hydrogeologic Characterization Southland Wastewater Treatment Facility, Nipomo, California," prepared for Nipomo Community Services District, July,

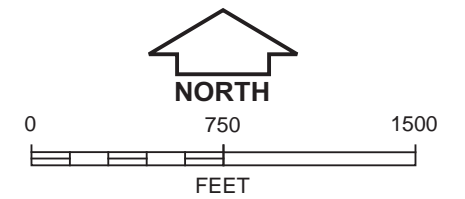
State of California, The Resources Agency, Department of Water Resources (1970), *Bulletin No. 63-3, Sea Water Intrusion: Pismo-Guadalupe Area*, February.

PLATES

M:\drafting\jobfiles\2007\3596.001\studymap_p1.cdr, 11-28-07

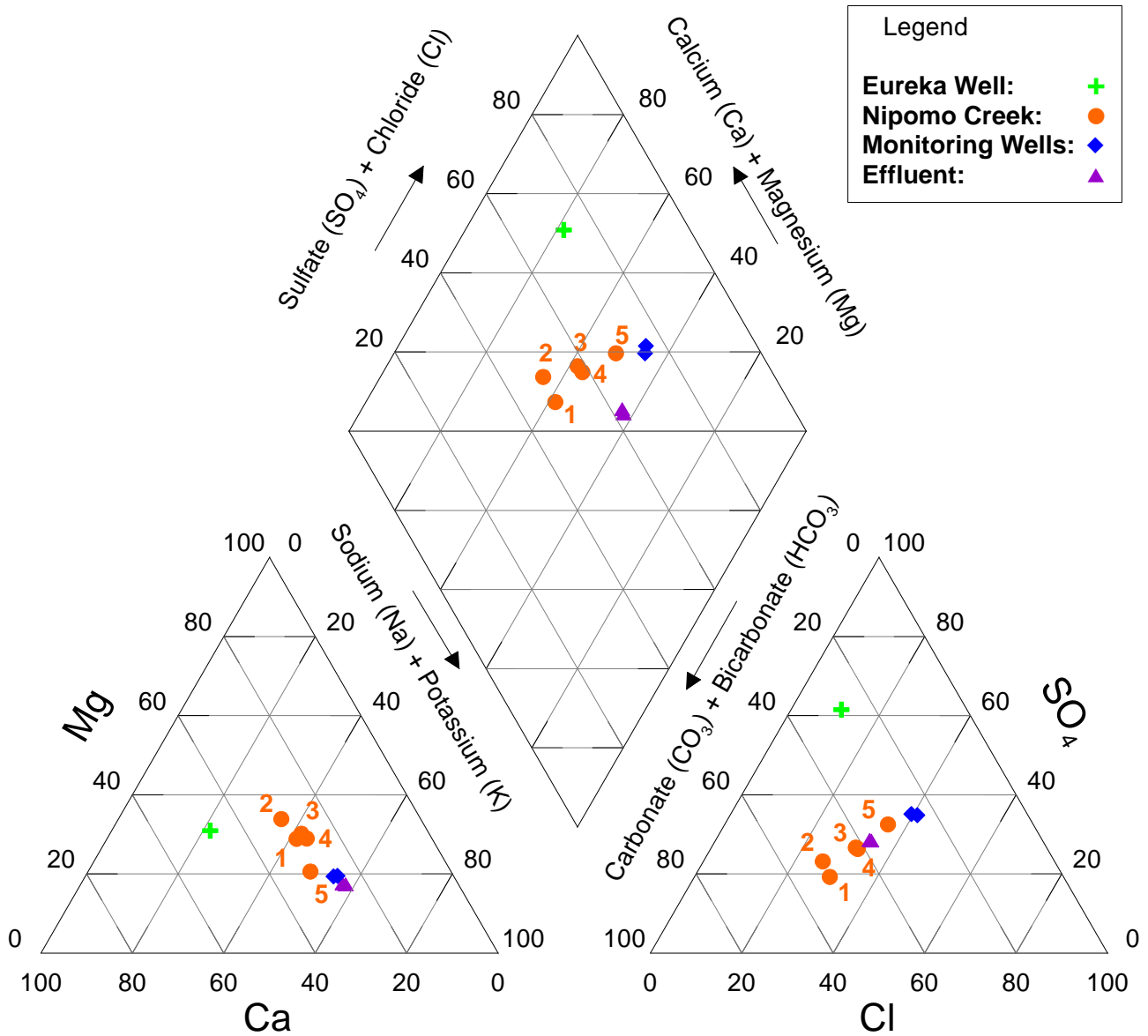


- LEGEND**
- Approximate location of Surface Water Sampling point
 - Approximate location of Monitoring Well
 - Percolation Ponds
 - Creek Channel
 - Direction of surface water flow



STUDY AREA MAP
 Southland WWTP Discharge Study
 Nipomo, California

Base map source: Google Earth, Image date: October 11, 2007.



PIPER DIAGRAM
 Southland WWTP Discharge Study
 Nipomo, California

ATTACHMENT 1
LABORATORY ANALYTICAL DATA



ANALYTICAL CHEMISTS

November 8, 2007

Nipomo CSD
Attn: Dan Migliazzo
P. O. Box 326
Nipomo, CA 93444

Lab ID : SP 0712008
Customer : 2-14320

Laboratory Report

Introduction: This report package contains total of 7 pages divided into 3 sections:

- Case Narrative (2 Pages) : An overview of the work performed at FGL.
Sample Results (2 pages) : Results for each sample submitted.
Quality Control (3 pages) : Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Table with 5 columns: Sample Description, Date Sampled, Date Received, FGL Lab ID #, Matrix. Rows include Effluent Composite and Effluent Grab.

Sampling and Receipt Information: All samples were received, prepared and analyzed within the method specified holding times. All samples arrived on ice. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Inorganic - Metals QC

Table with 2 columns: Sample ID, Description. Rows include 200.7 and 3010.

Inorganic - Wet Chemistry QC


Table with 2 columns: Sample ID, Description. Rows include 2130B and 2320B.

Inorganic - Wet Chemistry QC

	10/25/2007:210986 All analysis quality controls are within established criteria.
2510B	10/26/2007:210458 All preparation quality controls are within established criteria.
	10/26/2007:211018 All analysis quality controls are within established criteria.
2540 C,E	10/26/2007:210459 All preparation quality controls are within established criteria.
300.0	10/25/2007:210556 All preparation quality controls are within established criteria.
	10/25/2007:211143 All analysis quality controls are within established criteria.
351.1	10/28/2007:210507 All preparation quality controls are within established criteria, except: The following note applies to Nitrogen, Total Kjeldahl: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.
4500NH3G	11/06/2007:211404 All analysis quality controls are within established criteria.
	11/05/2007:211398 All analysis quality controls are within established criteria.
4500NH3H	10/31/2007:210614 All preparation quality controls are within established criteria.
5540C	10/24/2007:210409 All preparation quality controls are within established criteria.
	10/24/2007:210962 All analysis quality controls are within established criteria.

Certification: I certify that this data package is in compliance with NELAC standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

Approved By **Kelly A. Dunnahoo, B.S.**

 Digitally signed by Kelly A. Dunnahoo, B.S.
 Title: Laboratory Director
 Date: 2007-11-08



ANALYTICAL CHEMISTS

November 8, 2007

Lab ID : SP 0712008-001

Customer ID : 2-14320

Nipomo CSD

Attn: Dan Migliazzo

P. O. Box 326

Nipomo, CA 93444

Sampled On : October 24, 2007-07:45

Sampled By : Rick Motley

Received On : October 24, 2007-16:30

Matrix : Waste Water

Description : Effluent Composite

Project : Southland WWTP - Special Eff

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Metals, Total P:15								
Boron	0.4	0.1	mg/L		3010	10/29/07:210531	200.7	10/30/07:211183
Calcium	85	1	mg/L		3010	10/29/07:210531	200.7	10/30/07:211183
Magnesium	36	1	mg/L		3010	10/29/07:210531	200.7	10/30/07:211183
Potassium	26	1	mg/L		3010	10/29/07:210531	200.7	10/30/07:211183
Sodium	205	1	mg/L		3010	10/29/07:210531	200.7	10/30/07:211183
Zinc	0.06	0.02	mg/L		3010	10/29/07:210531	200.7	10/30/07:211183
Wet Chemistry P:1								
Ammonia-N	44	2	mg/L		4500NH3H	10/31/07:210614	4500NH3G	11/06/07:211404
Alkalinity (as CaCO3)- Soluble	350	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Bicarbonate	420	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Carbonate	ND	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Hydroxide	ND	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Bromide	0.23	0.03	mg/L		300.0	10/25/07:210556	300.0	10/25/07:211143
Chloride	224	5	mg/L		300.0	10/25/07:210556	300.0	10/25/07:211143
Conductivity	1900	1	umhos/cm		2510B	10/26/07:210458	2510B	10/26/07:211018
MBAS	ND	0.1	mg/L		5540C	10/24/07:210409	5540C	10/24/07:210962
Nitrate	ND	0.4	mg/L		300.0	10/25/07:210556	300.0	10/25/07:211143
Nitrate + Nitrite as N	ND	0.1	mg/L		300.0	10/25/07:210556	300.0	10/25/07:211143
Nitrite	ND	0.3	mg/L		300.0	10/25/07:210556	300.0	10/25/07:211143
Nitrogen, Total as Nitrogen	38	5	mg/L		351.1	10/28/07:210507	4500NH3G	11/05/07:211398
Nitrate + Nitrite	ND	0.1	mg/L		300.0	10/25/07:210556	300.0	10/25/07:211143
Kjeldahl Nitrogen	38	5	mg/L		351.1	10/28/07:210507	4500NH3G	11/05/07:211398
Nitrogen, Total Kjeldahl	38	5	mg/L		351.1	10/28/07:210507	4500NH3G	11/05/07:211398
Phosphate	14.5	0.5	mg/L		300.0	10/25/07:210556	300.0	10/25/07:211143
Solids, Total Dissolved (TDS)	1110	20	mg/L		2540 C,E	10/26/07:210459	2540C	10/27/07:211063
Sulfate	250	10	mg/L		300.0	10/25/07:210556	300.0	10/25/07:211143
Turbidity	16.0	0.2	NTU		2130B	10/24/07:210413	2130B	10/24/07:210967

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: () , (P) Plastic, (VFS) VOA w/Filters+Syringes Preservatives: H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

November 8, 2007

Lab ID : SP 0712008-002

Customer ID : 2-14320

Nipomo CSD

Attn: Dan Migliazzo

P. O. Box 326

Nipomo, CA 93444

Sampled On : October 24, 2007-07:45

Sampled By : Rick Motley

Received On :

Matrix : Waste Water

Description : Effluent Grab

Project : Southland WWTP - Special Eff

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Field Test								
Temperature	15		°C			10/24/07 07:45	2550B	10/24/07 07:45
pH	8.01		units			10/24/07 07:45	4500-H B	10/24/07 07:45
Oxygen, Dissolved	4.8		mg/L			10/24/07 07:45	4500-O G	10/24/07 07:45

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (), (P) Plastic, (VFS) VOA w/Filters+Syringes Preservatives: H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

November 8, 2007
Nipomo Community Services District

Lab ID : SP 0712008
Customer : 2-14320

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals Boron	200.7	10/30/2007:211183	CCV	ppm	5.000	102 %	90-110	
			CCB	ppm		0.045	0.10	
			CCV	ppm	5.000	102 %	90-110	
			CCB	ppm		0.042	0.10	
	3010	10/29/2007:210531	Blank	mg/L		ND	<0.1	
			LCS	mg/L	4.000	97.0 %	85-115	
			MS	mg/L	4.000	92.1 %	75-125	
			MSD	mg/L	4.000	91.6 %	75-125	
			MSRPD	mg/L	0.8000	0.4%	≤20.0	
			PDS	mg/L	4.000	104 %	75-125	
Calcium	200.7	10/30/2007:211183	CCV	ppm	25.00	101 %	90-110	
			CCB	ppm		0.005	1.0	
			CCV	ppm	25.00	101 %	90-110	
			CCB	ppm		0.002	1.0	
	3010	10/29/2007:210531	Blank	mg/L		ND	<1	
			LCS	mg/L	12.50	98.1 %	85-115	
			MS	mg/L	12.50	57.3 %	<¼	
			MSD	mg/L	12.50	62.7 %	<¼	
			MSRPD	mg/L	0.8000	0.8%	≤20.0	
			PDS	mg/L	12.50	92.0 %	75-125	
Magnesium	200.7	10/30/2007:211183	CCV	ppm	25.00	96.8 %	90-110	
			CCB	ppm		0.005	1.0	
			CCV	ppm	25.00	96.3 %	90-110	
			CCB	ppm		0.002	1.0	
	3010	10/29/2007:210531	Blank	mg/L		ND	<1	
			LCS	mg/L	12.50	95.8 %	85-115	
			MS	mg/L	12.50	76.3 %	75-125	
			MSD	mg/L	12.50	77.2 %	75-125	
			MSRPD	mg/L	0.8000	0.2%	≤20.0	
			PDS	mg/L	12.50	98.8 %	75-125	
Potassium	200.7	10/30/2007:211183	CCV	ppm	25.00	98.6 %	90-110	
			CCB	ppm		0.1	1.0	
			CCV	ppm	25.00	98.8 %	90-110	
			CCB	ppm		-0.03	1.0	
	3010	10/29/2007:210531	Blank	mg/L		ND	<1	
			LCS	mg/L	12.50	98.9 %	85-115	
			MS	mg/L	12.50	87.4 %	75-125	
			MSD	mg/L	12.50	89.2 %	75-125	
			MSRPD	mg/L	0.8000	0.5%	≤20	
			PDS	mg/L	12.50	102 %	75-125	
Sodium	200.7	10/30/2007:211183	CCV	ppm	25.00	97.2 %	90-110	
			CCB	ppm		0.20	1.0	
			CCV	ppm	25.00	95.3 %	90-110	
			CCB	ppm		0.06	1.0	
	3010	10/29/2007:210531	Blank	mg/L		ND	<1	
			LCS	mg/L	12.50	80.5 %	85-115	310
			MS	mg/L	12.50	42.7 %	<¼	
			MSD	mg/L	12.50	49.3 %	<¼	
			MSRPD	mg/L	0.8000	0.9%	≤20.0	
			PDS	mg/L	12.50	80.3 %	75-125	
Zinc	200.7	10/30/2007:211183	CCV	ppm	1.000	98.6 %	90-110	
			CCB	ppm		-0.0099	0.02	
			CCV	ppm	1.000	98.6 %	90-110	
			CCB	ppm		-0.0089	0.02	
	3010	10/29/2007:210531	Blank	mg/L		ND	<0.02	

November 8, 2007
 Nipomo Community Services District

Lab ID : SP 0712008
 Customer : 2-14320

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note		
Metals Zinc	3010	10/29/2007:210531	LCS	mg/L	2.000	100 %	85-115			
			MS	mg/L	2.000	94.7 %	75-125			
			MSD	mg/L	2.000	95.0 %	75-125			
			MSRPD	mg/L	0.8000	0.2%	≤20.0			
			PDS	mg/L	2.000	99.1 %	75-125			
Wet Chem Alkalinity (as CaCO3)	2320B	10/25/2007:210429	Dup	mg/L		0.6%	3.42			
	2320B	10/25/2007:210986	CCV	mg/l	234.9	102 %	90-110			
Ammonia Nitrogen	4500NH3G	11/05/2007:211398	CCB	mg/l		0.039	0.2			
			CCV	mg/l	2.000	102 %	90-110			
			CCB	mg/l		0.044	0.2			
			CCV	mg/l	2.000	99.8 %	90-110			
	4500NH3G	11/06/2007:211404	ICB	mg/l		-0.021	0.2			
			ICV	mg/l	2.000	110 %	90-110			
			CCB	mg/l		0.026	0.2			
	4500NH3H	10/31/2007:210614	CCV	mg/l	2.000	106 %	90-110			
			Blank	mg/L		ND	<0.2			
			LCS	mg/L	2.000	74.6 %	63-116			
			MS	mg/L	2.000	91.7 %	17-127			
			MSD	mg/L	2.000	85.9 %	17-127			
Bicarbonate	2320B	10/25/2007:210429	Dup	mg/l		0.6%	4.78			
	Bromide	300.0	10/25/2007:210556	LCS	mg/L	5.000	101 %	90-110		
MS				mg/L	100.0	95.1 %	90-121			
MSD				mg/L	100.0	94.9 %	90-121			
MSRPD				mg/L	100.0	0.2%	≤1.61			
300.0				10/25/2007:211143	ICV	ppb	10000	102 %	90-110	
	ICB	ppb			0.0	30				
	CCB	ppb			0.0	30				
	CCV	ppb	5000		102 %	90-110				
	Carbonate	2320B	10/25/2007:210429		Dup	mg/l		0.0	10	
Chloride	300.0	10/25/2007:210556	LCS	mg/L	25.00	99.9 %	90-110			
			MSRPD	mg/L	100.0	0.3%	≤23.0			
			300.0	10/25/2007:211143	ICV	ppm	50.00	104 %	90-110	
					ICB	ppm		0.04	1	
					CCB	ppm		0.04	1	
CCV	ppm	25.00			100 %	90-110				
Conductivity	2510B	10/26/2007:211018	ICB	umhos/cm		0.1	1			
			ICV	umhos/cm	998.0	99.5 %	95-105			
			CCV	umhos/cm	998.0	99.5 %	95-105			
E. C.	2510B	10/26/2007:210458	Blank	umhos/cm		ND	<1			
			Dup	umhos/cm		0.1%	0.372			
Hydroxide	2320B	10/25/2007:210429	Dup	mg/l		0.0	10			
MBAS	5540C	10/24/2007:210409	MS	mg/L	1.000	100 %	90-110			
			MSD	mg/L	1.000	100 %	90-110			
			MSRPD	mg/L	1.000	0.0	≤0.1			
	5540C	10/24/2007:210962	CCB	mg/L		0.000	0.1			
CCV			mg/L	1.000	100 %	99-101				
Nitrate	300.0	10/25/2007:210556	LCS	mg/L	20.00	101 %	90-110			
			MS	mg/L	400.0	99.5 %	88-124			
			MSD	mg/L	400.0	99.6 %	88-124			
			MSRPD	mg/L	100.0	0.07%	≤29.1			
	300.0	10/25/2007:211143	ICV	ppm	40.00	103 %	90-110			
			ICB	ppm		0.000	0.4			
			CCB	ppm		0.011	0.4			
			CCV	ppm	20.00	102 %	90-110			

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem Nitrite	300.0	10/25/2007:210556	LCS	mg/L	15.00	97.1 %	90-110	
			MS	mg/L	300.0	96.9 %	91-121	
			MSD	mg/L	300.0	97.0 %	91-121	
			MSRPD	mg/L	100.0	0.08%	≤23.8	
	300.0	10/25/2007:211143	ICV	ppm	30.00	103 %	90-110	
			ICB	ppm		0.000	0.3	
			CCB	ppm		0.000	0.3	
			CCV	ppm	15.00	97.9 %	90-110	
Nitrogen, Total Kjeldahl	351.1	10/28/2007:210507	Blank	mg/L		ND	<0.5	
			LCS	mg/L	2.000	98.2 %	69-125	
			MS	mg/L	2.000	5.6 %	25-149	435
			MSD	mg/L	2.000	11.6 %	25-149	435
			MSRPD	mg/L	2.000	0.12	≤0.5	
Phosphate	300.0	10/25/2007:210556	LCS	mg/L	15.00	103 %	90-110	
			MS	mg/L	300.0	99.7 %	85-126	
			MSD	mg/L	300.0	101 %	85-126	
			MSRPD	mg/L	100.0	1.2%	≤41.1	
	300.0	10/25/2007:211143	ICV	ppm	30.00	102 %	90-110	
			ICB	ppm		0.000	0.5	
			CCB	ppm		0.038	0.5	
			CCV	ppm	15.00	103 %	90-110	
Solids, Total Dissolved	2540 C,E	10/26/2007:210459	Blank	mg/L		ND	<20	
			LCS	mg/L	1000	99.7 %	90-110	
			LCS	mg/L	1000	101 %	90-110	
			Dup	mg/L		3.9%	10.0	
Sulfate	300.0	10/25/2007:210556	LCS	mg/L	50.00	99.8 %	90-110	
			MS	mg/L	1000	99.4 %	78-137	
			MSD	mg/L	1000	99.4 %	78-137	
			MSRPD	mg/L	100.0	0.01%	≤12.3	
	300.0	10/25/2007:211143	ICV	ppm	100.0	104 %	90-110	
			ICB	ppm		0.91	2	
			CCB	ppm		0.91	2	
			CCV	ppm	50.00	100 %	90-110	
Turbidity	2130B	10/24/2007:210413	Dup	NTU		0.0	0.2	
	2130B	10/24/2007:210967	CCB	NTU		0.063	0.2	
			CCV	NTU	2.000	91.5 %	90-110	
			CCB	NTU		0.065	0.2	
			CCV	NTU	2.000	91.0 %	90-110	

Definition

- ICV : Initial Calibration Verification - Analyzed to verify the instrument calibration is within criteria.
- ICB : Initial Calibration Blank - Analyzed to verify the instrument baseline is within criteria.
- CCV : Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.
- CCB : Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.
- Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
- LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.
- MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
- MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
- Dup : Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.
- MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.
- ND : Non-detect - Result was below the DQO listed for the analyte.
- <¼ : High Sample Background - Spike concentration was less than one fourth of the sample concentration.
- DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.

Explanation

- 310 : LCS above Acceptance Range (AR). Samples which were non detect for this analyte were accepted.
- 435 : Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.



ENVIRONMENTAL

www.fgllinc.com

Weekly

CHAIN OF CUSTODY

Laboratory Copy (1 of 3)

Client: Nipomo Community Services District

Address: Nipomo CSD
Attn: Dan Migliazzo
P. O. Box 326
Nipomo, CA 93444

Phone: (805)929-1341 Fax: (805)929-5090

Contact Person: Dan Migliazzo

Project Name: Southland WWTP - Special Eff

Quote Number:
Sampler(s) *Risk Monitor*

Sampling Fee: Pickup Fee: *712000*
Compositor Setup Date: *10/23/07* Time: *4:00*

Lab Number: *SP 712000* 2-14320

Samp Num	Location Description	Date Sampled	Time Sampled
1	Effluent Composite	<i>10/23/07</i>	<i>7:45</i>
2	Effluent Grab	<i>10/24/07</i>	<i>7:45</i>

2255-10/10/2007

TEST DESCRIPTION - See Reverse side for Container, Preservative and Sampling Information

Method of Sampling:	Type of Sample	Potable(P) Non-Potable(NP) Ag Water(AgW)	Bacti Type: Other(O) System(SYS) Source(SR) Waste(W)	Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL)	Metals, Total-B,Ca,Mg,K,Na,Zn 250ml(P)-HNO3	Wet Chemistry-SO4,TDS,PO4,NO2,NO3,MBAS,Conductivity,Cl,Br,Alk (CaCO3),NH3-N,Turbidity <i>TKN</i>	Field Filter PO4 32oz(P), 40ml(VFS), 16oz(P)-H2SO4	Field Test-Field Temp.	Field Test-Field pH !!pH = 15 MINUTE HOLD TIME!!	Field - pH Date	Field - pH Time	Field Test-Field O2 Diss.
Composite(C) Grab(G)	**SEE REVERSE SIDE**				1	1,1,1		<i>15.3c</i>	<i>8.01</i>	<i>10/24/07</i>	<i>7:35</i>	<i>4.8</i>
Method of Sampling:	Type of Sample	Potable(P) Non-Potable(NP) Ag Water(AgW)	Bacti Type: Other(O) System(SYS) Source(SR) Waste(W)	Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL)	Metals, Total-B,Ca,Mg,K,Na,Zn 250ml(P)-HNO3	Wet Chemistry-SO4,TDS,PO4,NO2,NO3,MBAS,Conductivity,Cl,Br,Alk (CaCO3),NH3-N,Turbidity <i>TKN</i>	Field Filter PO4 32oz(P), 40ml(VFS), 16oz(P)-H2SO4	Field Test-Field Temp.	Field Test-Field pH !!pH = 15 MINUTE HOLD TIME!!	Field - pH Date	Field - pH Time	Field Test-Field O2 Diss.
Composite(C) Grab(G)	**SEE REVERSE SIDE**				1	1,1,1		<i>15.3c</i>	<i>8.01</i>	<i>10/24/07</i>	<i>7:35</i>	<i>4.8</i>

Relinquished	Date:	Time:	Relinquished	Date:	Time:	Relinquished	Date:	Time:
<i>MS</i>	<i>10/24/07</i>	<i>1:15</i>	<i>MS</i>	<i>10/24/07</i>	<i>10:30</i>			
	<i>10/24/07</i>	<i>1:15</i>	<i>By 10/24/07</i>	<i>10:30</i>				

Corporate Offices & Laboratory
P. O. Box 2727, 853 Corporation Street
Santa Paula, CA 93061-0272
TEL: (805) 392-2000
FAX: (805) 525-4172

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209) 942-0182
FAX: (209) 942-0423

Office & Laboratory
563 East Lindo Avenue
Chico, CA 95926
TEL: (530) 343-5818
FAX: (530) 343-3907

Field Office
Visalia, California
TEL: (559) 734-9473
Mobile (559) 737-2399
FAX: (559) 734-9435

Santa Paula - Condition Upon Receipt (Attach to COC)

Sample Receipt:

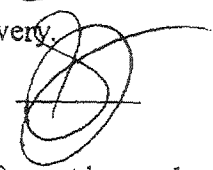
1. Number of ice chests/packages received: 1
Note as OTC if received over the counter unpackaged.
2. Were samples received in a chilled condition? Temps: 25 / / / /
Acceptable is 2° to 6° C. Also acceptable is received on ice (ROI) for the same day of sampling or received at room temperature (RRT) if sampled within one hour of receipt. Client contact for temperature failures must be documented below. If many packages are received at one time check for tests/H.T.'s/rushes/Bacti's to prioritize further review. Please notify Microbiology personnel immediately of bacti samples received.
3. Do the number of bottles received agree with the COC? Yes No N/A
4. Were samples received intact? (i.e. no broken bottles, leaks etc.) Yes No
5. Were sample custody seals intact? N/A Yes No

Sign and date the COC, obtain LIMS sample numbers, select methods/tests and print labels.

Sample Verification, Labeling and Distribution:

1. Were all requested analyses understood and acceptable? Yes No
2. Did bottle labels correspond with the client's ID's? Yes No
3. Were all bottles requiring sample preservation properly preserved? Yes No N/A FGL
4. VOAs checked for Headspace? Yes No N/A
5. Were all analyses within holding times at time of receipt? Yes No
6. Have rush or project due dates been checked and accepted? N/A Yes No

Attach labels to the containers and include a copy of the COC for lab delivery.

Sample Receipt, Login and Verification completed by (initials): 

Discrepancy Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be resolved.

1. Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____

Resolution: _____

2. Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____

Resolution: _____

(2-14320)
Nipomo Community Services District
SP 0712008

IV-10/24/2007-16:37:01

Gardner, David [FWI]

From: Gardner, David [FWI]
Sent: Tuesday, September 25, 2007 10:48 AM
To: Sorensen, Paul [FWI]; Roberts, Shawn [FWI]
Cc: Nicely, Tim [FWI]
Subject: Nipomo CSD, water quality indicator parameters and environmental tracers associated with wastewater

Relative to your question (Paul) on what to sample for in the Nipomo Creek survey and the pump tests on site I referred to the USGS publication on recycled water in the Montebello forebay (2003, Anders and Schroeder). This publication attempts to look at and define flow paths from the recharge basins in a number of variable depth production wells located about 500 feet from the spreading basins. They used about 40 water quality indicators in an attempt to determine the flow paths, the mixing, as well as age of the ground water. They used various statistical analyses with all the data. Indicators included both general chemical, organic, and isotopic analysis. The study was likely a \$1M effort. Obviously we don't have that budget or time. The study is useful in that I think it can narrow our effort to a few key constituents found in wastewater. From that we can do some simple statistical analysis (nonparametric tests) to try to see if the Nipomo CSD wastewater is emerging in the creek. I think we need to be careful about how we go about this and not try to over state what we know and conclude from the somewhat limited testing and analysis we will be doing.

Key to the study will be to try to identify areas where we think we have "native" groundwater, unaffected by the wastewater. Using the DWR well log data and well locations, we will need to find shallow wells in the area to sample, not just the creek and the wells at the site. Our problem, in part, is that we really don't know what up gradient of the site is.

We need to focus on conservative constituents in the wastewater such as chloride, bromide, and boron (as well as all the other general mineral constituents). Boron, in particular, can be present in large amounts in wastewater due to its presence as a softener in detergents. The USGS study found that there was little, if any, significant correlation of water quality in the wells and the recycled wastewater related to microbial constituents. Thus, to sample water in the creek for bacterial counts etc. would appear to be a waste of time.

The most significant correlation appears to be the salts added to the wastewater...sodium and chloride. The USGS study used an interesting approach by calculating the "excess" chloride and boron in the water samples. This was done using some simple equations to determine the percentage of wastewater in the samples collected from the wells. They did a linear regression analysis (a graph) as a method to test how good the correlation was. I think we can do the same thing. We will need a number of samples of the wastewater, say over a several week period. Perhaps a half dozen or so.

Most of the USGS study focused on all sorts of isotope data, ratios, dissolved gases, and age dating of the ground water. Metals such as Fe, Mn, and Zn showed no significant correlation due to the way they are reduced or mobilized over the groundwater flow path.

We should do the standard nitrogen species....nitrate, nitrite, ammonia, total nitrogen.

So...constituents to test for (really pretty straightforward) include....

Field...T, pH, EC, dissolved oxygen, turbidity (surface water).

Lab...TDS, Ca, Mg, Na, K, alkalinity, SO₄, Cl, Br, NO₃, NO₂, NH₃, phosphate, zinc, B, MBAS.

Calculated...excess Cl, excess B,

Well Information as to depth, perforated interval, obviously need to be known as well as their location relative to the inferred flow paths. Before we go out in the field I would like to see the target wells we intend to sample for background (assuming we can find some).

I will scan the USGS report and send it to you.

David Gardner, CHg
Principal Hydrogeologist
Fugro West, Inc.
4820 McGrath Street, Suite 100
Ventura, CA 93003
www.fugrowest.com
phone : (805) 650 7000
fax: (805) 650 7010



ANALYTICAL CHEMISTS

November 9, 2007

Nipomo CSD
Attn: Dan Migliazzo
P. O. Box 326
Nipomo, CA 93444

Lab ID : SP 0711789
Customer : 2-14320

Laboratory Report

Introduction: This report package contains total of 6 pages divided into 3 sections:

- Case Narrative (2 Pages) : An overview of the work performed at FGL.
- Sample Results (1 page) : Results for each sample submitted.
- Quality Control (3 pages) : Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID #	Matrix
MW1	10/18/2007	10/18/2007	SP 0711789-001	MW

Sampling and Receipt Information: The sample was received, prepared and analyzed within the method specified holding times. All samples arrived on ice. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Inorganic - Metals QC

200.7	11/08/2007:210919	All preparation quality controls are within established criteria.
	11/08/2007:211554	All analysis quality controls are within established criteria.
	10/26/2007:211090	All analysis quality controls are within established criteria.
3010	10/24/2007:210389	All preparation quality controls are within established criteria.

Inorganic - Wet Chemistry QC


2130B	10/18/2007:210246	All preparation quality controls are within established criteria.
	10/18/2007:210805	All analysis quality controls are within established criteria.

Inorganic - Wet Chemistry QC

2320B	10/20/2007:210267	All preparation quality controls are within established criteria.
2320B	10/20/2007:210835	All analysis quality controls are within established criteria.
2510B	10/19/2007:210219	All preparation quality controls are within established criteria.
	10/19/2007:210783	All analysis quality controls are within established criteria.
2540 C,E	10/19/2007:210220	All preparation quality controls are within established criteria.
300.0	10/18/2007:210253	All preparation quality controls are within established criteria.
	10/19/2007:210255	All preparation quality controls are within established criteria.
	10/19/2007:210949	All analysis quality controls are within established criteria.
	10/19/2007:210820	All analysis quality controls are within established criteria.
351.1	10/23/2007:210340	All preparation quality controls are within established criteria.
4500NH3G	10/29/2007:211132	All analysis quality controls are within established criteria.
	10/24/2007:211087	All analysis quality controls are within established criteria.
4500NH3H	10/22/2007:210295	All preparation quality controls are within established criteria.
5540C	10/18/2007:210211	All preparation quality controls are within established criteria.
	10/18/2007:210775	All analysis quality controls are within established criteria.

Certification: I certify that this data package is in compliance with NELAC standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

Approved By **Kelly A. Dunnahoo, B.S.**

 Digitally signed by Kelly A. Dunnahoo, B.S.
 Title: Laboratory Director
 Date: 2007-11-09



ANALYTICAL CHEMISTS

November 9, 2007

Lab ID : SP 0711789-001

Customer ID : 2-14320

Nipomo CSD

Attn: Dan Migliazzo

P. O. Box 326

Nipomo, CA 93444

Sampled On : October 18, 2007-09:00

Sampled By : Not Available

Received On : October 18, 2007-15:40

Matrix : Monitoring Well

Description : MW1

Project : Southland WWTP - GW - 1

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Field Test								
pH	6.42		units			10/18/07 09:00	4500-H B	10/18/07 09:00
Temperature	17.3		°C			10/18/07 09:00	2550B	10/18/07 09:00
Oxygen, Dissolved	.40		mg/L			10/18/07 09:00	4500-O G	10/18/07 09:00
Metals, Total P:15								
Boron	0.4	0.1	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Calcium	98	1	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Magnesium	44	1	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Potassium	15	1	mg/L		200.7	11/08/07:210919	200.7	11/08/07:211554
Sodium	223	1	mg/L		200.7	11/08/07:210919	200.7	11/08/07:211554
Zinc	0.05	0.02	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Wet Chemistry VFS:1								
Ammonia-N	0.9	0.2	mg/L		4500NH3H	10/22/07:210295	4500NH3G	10/24/07:211087
Alkalinity (as CaCO3)-Soluble	200	10	mg/L		2320B	10/20/07:210267	2320B	10/20/07:210835
Bicarbonate	240	10	mg/L		2320B	10/20/07:210267	2320B	10/20/07:210835
Carbonate	ND	10	mg/L		2320B	10/20/07:210267	2320B	10/20/07:210835
Hydroxide	ND	10	mg/L		2320B	10/20/07:210267	2320B	10/20/07:210835
Bromide	0.28	0.03	mg/L		300.0	10/18/07:210253	300.0	10/19/07:210820
Chloride	236	5	mg/L		300.0	10/19/07:210255	300.0	10/19/07:210949
Conductivity	1820	1	umhos/cm		2510B	10/19/07:210219	2510B	10/19/07:210783
MBAS	ND	0.1	mg/L		5540C	10/18/07:210211	5540C	10/18/07:210775
Nitrate	114	2	mg/L		300.0	10/19/07:210255	300.0	10/19/07:210949
Nitrate + Nitrite as N	25.7	0.5	mg/L		300.0	10/19/07:210255	300.0	10/19/07:210949
Nitrite	ND	0.3	mg/L		300.0	10/18/07:210253	300.0	10/19/07:210820
Nitrogen, Total as Nitrogen	27.3	0.5	mg/L		351.1	10/23/07:210340	4500NH3G	10/29/07:211132
Nitrate + Nitrite	25.7	0.5	mg/L		300.0	10/19/07:210255	300.0	10/19/07:210949
Kjeldahl Nitrogen	1.6	0.5	mg/L		351.1	10/23/07:210340	4500NH3G	10/29/07:211132
Nitrogen, Total Kjeldahl	1.6	0.5	mg/L		351.1	10/23/07:210340	4500NH3G	10/29/07:211132
Phosphate	1.6	0.5	mg/L		300.0	10/18/07:210253	300.0	10/19/07:210820
Solids, Total Dissolved (TDS)	1210	20	mg/L		2540 C,E	10/19/07:210220	2540C	10/20/07:210827
Sulfate	270	10	mg/L		300.0	10/19/07:210255	300.0	10/19/07:210949
Turbidity	0.8	0.2	NTU		2130B	10/18/07:210246	2130B	10/18/07:210805

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (), (P) Plastic, (VFS) VOA w/Filters+Syringes Preservatives: H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

November 9, 2007
Nipomo Community Services District

Lab ID : SP 0711789
Customer : 2-14320

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals Boron	200.7	10/26/2007:211090	CCV	ppm	5.000	101 %	90-110	
			CCB	ppm		-0.006	0.10	
			CCV	ppm	5.000	106 %	90-110	
			CCB	ppm		-0.016	0.10	
	3010	10/24/2007:210389	Blank	mg/L		ND	<0.1	
			LCS	mg/L	4.000	92.2 %	85-115	
			MS	mg/L	4.000	95.1 %	75-125	
			MSD	mg/L	4.000	93.1 %	75-125	
			MSRPD	mg/L	0.8000	1.9%	≤20.0	
			PDS	mg/L	4.000	120 %	75-125	
Calcium	200.7	10/26/2007:211090	CCV	ppm	25.00	100 %	90-110	
			CCB	ppm		0.008	1.0	
			CCV	ppm	25.00	102 %	90-110	
			CCB	ppm		0.01	1.0	
	3010	10/24/2007:210389	Blank	mg/L		ND	<1	
			LCS	mg/L	12.50	92.3 %	85-115	
			MS	mg/L	12.50	104 %	75-125	
			MSD	mg/L	12.50	88.4 %	75-125	
			MSRPD	mg/L	0.8000	3.3%	≤20.0	
			PDS	mg/L	12.50	-183 %	75-125	P
Magnesium	200.7	10/26/2007:211090	CCV	ppm	25.00	96.7 %	90-110	
			CCB	ppm		0.009	1.0	
			CCV	ppm	25.00	99.3 %	90-110	
			CCB	ppm		0.009	1.0	
	3010	10/24/2007:210389	Blank	mg/L		ND	<1	
			LCS	mg/L	12.50	92.4 %	85-115	
			MS	mg/L	12.50	104 %	75-125	
			MSD	mg/L	12.50	89.7 %	75-125	
			MSRPD	mg/L	0.8000	3.6%	≤20.0	
			PDS	mg/L	12.50	-156 %	75-125	P
Potassium	200.7	11/08/2007:210919	MS	mg/L	12.50	127 %	<¼	
			MSD	mg/L	12.50	123 %	75-125	
			MSRPD	mg/L	800.0	0.5%	≤20.0	
	200.7	11/08/2007:211554	CCV	ppm	25.00	102 %	90-110	
			CCB	ppm		-0.03	1.0	
			CCV	ppm	25.00	103 %	90-110	
CCB	ppm		-0.01	1.0				
Sodium	200.7	11/08/2007:210919	MS	mg/L	12.50	-1360 %	<¼	
			MSD	mg/L	12.50	-1390 %	<¼	
			MSRPD	mg/L	800.0	0.07%	≤20.0	
	200.7	11/08/2007:211554	CCV	ppm	25.00	98.7 %	90-110	
			CCB	ppm		0.06	1.0	
			CCV	ppm	25.00	98.0 %	90-110	
CCB	ppm		0.19	1.0				
Zinc	200.7	10/26/2007:211090	CCV	ppm	1.000	96.9 %	90-110	
			CCB	ppm		0.0004	0.02	
			CCV	ppm	1.000	97.2 %	90-110	
			CCB	ppm		-0.0007	0.02	
	3010	10/24/2007:210389	Blank	mg/L		ND	<0.02	
			LCS	mg/L	2.000	92.6 %	85-115	
			MS	mg/L	2.000	96.0 %	75-125	
			MSD	mg/L	2.000	92.1 %	75-125	
			MSRPD	mg/L	0.8000	4.1%	≤20.0	
			PDS	mg/L	2.000	114 %	75-125	
Wet Chem								

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Alkalinity (as CaCO3)	2320B	10/20/2007:210267	Dup	mg/L		1.1%	3.42	
	2320B	10/20/2007:210835	CCV	mg/l	234.9	103 %	90-110	
Ammonia Nitrogen	4500NH3G	10/24/2007:211087	ICB	mg/l		-0.011	0.2	
			ICV	mg/l	2.000	102 %	90-110	
			CCB	mg/l		-0.004	0.2	
			CCV	mg/l	2.000	101 %	90-110	
	4500NH3G	10/29/2007:211132	CCB	mg/l		0.000	0.2	
			CCV	mg/l	2.000	102 %	90-110	
			CCB	mg/l		-0.031	0.2	
	4500NH3H	10/22/2007:210295	Blank	mg/L		ND	<0.2	
			LCS	mg/L	2.000	80.0 %	63-116	
MS			mg/L	2.000	91.5 %	17-127		
MSD			mg/L	2.000	83.4 %	17-127		
MSRPD	mg/L	2.000	5.9%	≤80.2				
Bicarbonate	2320B	10/20/2007:210267	Dup	mg/l		1.1%	4.78	
Bromide	300.0	10/18/2007:210253	LCS	mg/L	5.000	105 %	90-110	
			MS	mg/L	100.0	103 %	90-121	
			MSD	mg/L	100.0	103 %	90-121	
			MSRPD	mg/L	100.0	0.06%	≤1.61	
	300.0	10/19/2007:210820	CCB	ppb		0.0	30	
			CCV	ppb	5000	105 %	90-110	
CCB	ppb		0.0	30				
CCV	ppb	5000	104 %	90-110				
Carbonate	2320B	10/20/2007:210267	Dup	mg/l		0.0	10	
Chloride	300.0	10/19/2007:210255	LCS	mg/L	25.00	105 %	90-110	
			MS	mg/L	500.0	114 %	86-128	
			MSD	mg/L	500.0	114 %	86-128	
			MSRPD	mg/L	100.0	0.1%	≤23.0	
	300.0	10/19/2007:210949	CCB	ppm		0.006	1	
			CCV	ppm	25.00	100 %	90-110	
CCB	ppm		0.007	1				
CCV	ppm	25.00	102 %	90-110				
Conductivity	2510B	10/19/2007:210783	ICB	umhos/cm		0.1	1	
			ICV	umhos/cm	998.0	101 %	95-105	
			CCV	umhos/cm	998.0	101 %	95-105	
E. C.	2510B	10/19/2007:210219	Blank	umhos/cm		ND	<1	
			Dup	umhos/cm		0.2%	0.372	
Hydroxide	2320B	10/20/2007:210267	Dup	mg/l		0.0	10	
MBAS	5540C	10/18/2007:210211	MS	mg/L	1.000	100 %	90-110	
			MSD	mg/L	1.000	100 %	90-110	
			MSRPD	mg/L	1.000	0.0	≤0.1	
	5540C	10/18/2007:210775	CCB	mg/L		0.000	0.1	
CCV	mg/L	1.000	100 %	99-101				
Nitrate	300.0	10/19/2007:210255	LCS	mg/L	20.00	106 %	90-110	
			MS	mg/L	400.0	112 %	88-124	
			MSD	mg/L	400.0	113 %	88-124	
			MSRPD	mg/L	100.0	0.3%	≤29.1	
	300.0	10/19/2007:210949	CCB	ppm		0.008	0.4	
			CCV	ppm	20.00	101 %	90-110	
CCB	ppm		0.013	0.4				
CCV	ppm	20.00	103 %	90-110				
Nitrite	300.0	10/18/2007:210253	LCS	mg/L	15.00	102 %	90-110	
			MS	mg/L	300.0	106 %	91-121	
			MSD	mg/L	300.0	105 %	91-121	
			MSRPD	mg/L	100.0	0.1%	≤23.8	
	300.0	10/19/2007:210820	CCB	ppm		0.013	0.3	
CCV	ppm	15.00	102 %	90-110				

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem Nitrite	300.0	10/19/2007:210820	CCB	ppm		0.011	0.3	
			CCV	ppm	15.00	103 %	90-110	
Nitrogen, Total Kjeldahl	351.1	10/23/2007:210340	Blank	mg/L		ND	<0.5	
			LCS	mg/L	2.000	94.0 %	69-125	
			MS	mg/L	2.000	150 %	<¼	
			MSD	mg/L	2.000	-37.5 %	<¼	
			MSRPD	mg/L	2.000	15.1 %	≤25.7	
Phosphate	300.0	10/18/2007:210253	LCS	mg/L	15.00	106 %	90-110	
			MS	mg/L	300.0	109 %	85-126	
			MSD	mg/L	300.0	108 %	85-126	
			MSRPD	mg/L	100.0	0.3 %	≤41.1	
	300.0	10/19/2007:210820	CCB	ppm		0.000	0.5	
			CCV	ppm	15.00	108 %	90-110	
			CCB	ppm		0.000	0.5	
			CCV	ppm	15.00	109 %	90-110	
Solids, Total Dissolved	2540 C,E	10/19/2007:210220	Blank	mg/L		ND	<20	
			LCS	mg/L	1000	98.7 %	90-110	
			LCS	mg/L	1000	98.5 %	90-110	
			Dup	mg/L		2.4 %	10.0	
Sulfate	300.0	10/19/2007:210255	LCS	mg/L	50.00	105 %	90-110	
			MS	mg/L	1000	113 %	78-137	
			MSD	mg/L	1000	114 %	78-137	
			MSRPD	mg/L	100.0	0.3 %	≤12.3	
	300.0	10/19/2007:210949	CCB	ppm		0.88	2	
			CCV	ppm	50.00	99.7 %	90-110	
			CCB	ppm		0.87	2	
			CCV	ppm	50.00	102 %	90-110	
Turbidity	2130B	10/18/2007:210246	Dup	NTU		0.0030	0.2	
	2130B	10/18/2007:210805	CCB	NTU		0.055	0.2	
			CCV	NTU	2.000	93.0 %	90-110	
			CCB	NTU		0.050	0.2	
			CCV	NTU	2.000	93.0 %	90-110	
Definition								
ICV : Initial Calibration Verification - Analyzed to verify the instrument calibration is within criteria.								
ICB : Initial Calibration Blank - Analyzed to verify the instrument baseline is within criteria.								
CCV : Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.								
CCB : Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.								
Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.								
LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.								
MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.								
MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.								
Dup : Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.								
MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.								
ND : Non-detect - Result was below the DQO listed for the analyte.								
<¼ : High Sample Background - Spike concentration was less than one fourth of the sample concentration.								
DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.								



ENVIRONMENTAL

Special
www.fginc.com

CHAIN OF CUSTODY
Laboratory Copy (1 of 3)

Client: Nipomo Community Services District
Address: Nipomo CSD
Attn: Dan Migliazzo
P. O. Box 326
Nipomo, CA 93444
Phone: (805)929-1341 Fax: (805)929-5090
Contact Person: Dan Migliazzo
Project Name: Southland WWTP - GW - 1
Purchase Order Number:
Quote Number:
Samplers(s)
Sampling Fee: Pickup Fee:
Compositor Setup Date: / / Time: / /
Lab Number: SP 1188 2-14320

2260:10/17/2007

TEST DESCRIPTION - See Reverse side for Container, Preservative and Sampling Information

Sampl Num	Location Description	Date Sampled	Time Sampled	Method of Sampling	Type of Sample	Potable(P) Non-Potable(NP) Ag Water(AgW)	Bacti Type: Other(O) System(SYS) Source(SR) Waste(W)	Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL)	Field Test-Field Temp.	Metals, Total-B,Ca,Mg,K,Na,Zn 250ml(P)-HNO3	Wet Chemistry-SO4,TDS,PO4>Total N,NO2,NO3,MBAS,Conductivity,Cl,Br,Alk. (CaCO3),NH3-N,Turbidity	Field Filter PO4 32oz(P), 40ml(VFS), 16oz(P)-H2SO4	Field Test-Field pH !!pH = 15 MINUTE HOLD TIME!!	Field - pH Date	Field - pH Time	Field Test-Field O2 Diss.
1	MW1	10/18/07	9:03	G	MW				17.3	1	1.1.1		9.20 6.92	10/18	9:20	.40
Remarks:																
Relinquished																
Received By: <i>[Signature]</i> Date: 10/18/07 Time: 11:20																
Relinquished																
Received By: <i>[Signature]</i> Date: 10/18/07 Time: 12:40																

Corporate Offices & Laboratory
P.O. Box 1772 - 3554 Corporation Avenue
Stearns Place, CA 95926-1077
TEL: (909) 942-8000
FAX: (909) 942-4177

Office & Laboratory
2940 Shafter Street
Stearns, CA 95216
TEL: (909) 942-9189
FAX: (909) 942-9025

Office & Laboratory
563 East Center Avenue
Orange, CA 92666
TEL: (909) 943-5910
FAX: (909) 242-9097

Field Office
Virginia Gardens
TEL: (909) 484-6274
Mobile: (909) 733-0374
FAX: (909) 734-6479

Santa Paula - Condition Upon Receipt (Attach to COC)

Sample Receipt:

1. Number of ice chests/packages received: 1
Note as OTC if received over the counter unpackaged.
2. Were samples received in a chilled condition? Temps: kel / / / /
Acceptable is above freezing to 6° C. Also acceptable is received on ice (ROI) for the same day of sampling or received at room temperature (RRT) if sampled within one hour of receipt. Client contact for temperature failures must be documented below. If many packages are received at one time check for tests/H.T.'s/rushes/Bacti's to prioritize further review. Please notify Microbiology personnel immediately of bacti samples received.
3. Do the number of bottles received agree with the COC? Yes No N/A
4. Were samples received intact? (i.e. no broken bottles, leaks etc.) Yes No
5. Were sample custody seals intact? N/A Yes No

Sign and date the COC, obtain LIMS sample numbers, select methods/tests and print labels.

Sample Verification, Labeling and Distribution:

1. Were all requested analyses understood and acceptable? Yes No
2. Did bottle labels correspond with the client's ID's? Yes No
3. Were all bottles requiring sample preservation properly preserved? Yes No N/A FGL
4. Were all analyses within holding times at time of receipt? Yes No
5. Have rush or project due dates been checked and accepted? N/A Yes No

Attach labels to the containers and include a copy of the COC for lab delivery.

Sample Receipt, Login and Verification completed by (initials):

Discrepancy Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be resolved.

1. Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____

Resolution: _____

2. Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____

Resolution: _____

(2-14320)
Nipomo Community Services District

SP 0711789

IV-10/18/2007-15:41:53



ANALYTICAL CHEMISTS

November 9, 2007

Nipomo CSD
Attn: Dan Migliazzo
P. O. Box 326
Nipomo, CA 93444

Lab ID : SP 0711942
Customer : 2-14320

Laboratory Report

Introduction: This report package contains total of 6 pages divided into 3 sections:

- Case Narrative (2 Pages) : An overview of the work performed at FGL.
Sample Results (1 page) : Results for each sample submitted.
Quality Control (3 pages) : Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Table with 5 columns: Sample Description, Date Sampled, Date Received, FGL Lab ID #, Matrix. Row 1: MW3, 10/23/2007, 10/22/2007, SP 0711942-001, MW

Sampling and Receipt Information: The sample was received, prepared and analyzed within the method specified holding times. All samples arrived on ice. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Inorganic - Metals QC

Table with 2 columns: Sample ID, QC Details. Rows include 200.7 and 3010 with their respective QC dates and descriptions.

Inorganic - Wet Chemistry QC


Table with 2 columns: Sample ID, QC Details. Rows include 2130B with its QC dates and descriptions.

Inorganic - Wet Chemistry QC

2320B	10/25/2007:210986 All analysis quality controls are within established criteria.
2320B	10/25/2007:210429 All preparation quality controls are within established criteria.
2510B	10/25/2007:210416 All preparation quality controls are within established criteria.
	10/25/2007:210972 All analysis quality controls are within established criteria.
2540 C,E	10/25/2007:210417 All preparation quality controls are within established criteria.
300.0	10/24/2007:210555 All preparation quality controls are within established criteria, except: The following note applies to Bromide: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.
	10/24/2007:211123 All analysis quality controls are within established criteria.
351.1	10/28/2007:210507 All preparation quality controls are within established criteria, except: The following note applies to Nitrogen, Total Kjeldahl: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.
4500NH3G	11/05/2007:211449 All analysis quality controls are within established criteria.
	11/05/2007:211398 All analysis quality controls are within established criteria.
4500NH3H	10/29/2007:210532 All preparation quality controls are within established criteria.
5540C	10/23/2007:210351 All preparation quality controls are within established criteria.
	10/23/2007:210924 All analysis quality controls are within established criteria.

Certification: I certify that this data package is in compliance with NELAC standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

Approved By **Kelly A. Dunnahoo, B.S.**

 Digitally signed by Kelly A. Dunnahoo, B.S.
 Title: Laboratory Director
 Date: 2007-11-09



ANALYTICAL CHEMISTS

November 9, 2007

Lab ID : SP 0711942-001

Customer ID : 2-14320

Nipomo CSD

Attn: Dan Migliazzo

P. O. Box 326

Nipomo, CA 93444

Sampled On : October 23, 2007-09:50

Sampled By : Not Available

Received On : October 22, 2007-15:30

Matrix : Monitoring Well

Description : MW3

Project : Southland WWTP - GW - 2

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Field Test								
pH	6.46		units			10/23/07 09:50	4500-H B	10/23/07 09:50
Temperature	16.7		°C			10/23/07 09:50	2550B	10/23/07 09:50
Oxygen, Dissolved	4.7		mg/L			10/23/07 09:50	4500-O G	10/23/07 09:50
Metals, Total ^{P:15}								
Boron	0.3	0.1	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Calcium	87	1	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Magnesium	41	1	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Potassium	3	1	mg/L		200.7	11/08/07:210919	200.7	11/08/07:211554
Sodium	215	1	mg/L		200.7	11/08/07:210919	200.7	11/08/07:211554
Zinc	0.21	0.02	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Wet Chemistry ^{P:1}								
Ammonia-N	ND	0.2	mg/L		4500NH3H	10/29/07:210532	4500NH3G	11/05/07:211449
Alkalinity (as CaCO ₃)-Soluble	200	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Bicarbonate	240	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Carbonate	ND	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Hydroxide	ND	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Bromide	ND	0.03	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Chloride	218	5	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Conductivity	1680	1	umhos/cm		2510B	10/25/07:210416	2510B	10/25/07:210972
MBAS	ND	0.1	mg/L		5540C	10/23/07:210351	5540C	10/23/07:210924
Nitrate	76.7	0.4	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Nitrate + Nitrite as N	17.3	0.1	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Nitrite	ND	0.3	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Nitrogen, Total as Nitrogen	17.3	0.5	mg/L		351.1	10/28/07:210507	4500NH3G	11/05/07:211398
Nitrate + Nitrite	17.3	0.1	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Kjeldahl Nitrogen	ND	0.5	mg/L		351.1	10/28/07:210507	4500NH3G	11/05/07:211398
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		351.1	10/28/07:210507	4500NH3G	11/05/07:211398
Phosphate	ND	0.5	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Solids, Total Dissolved (TDS)	1090	20	mg/L		2540 C,E	10/25/07:210417	2540C	10/26/07:211019
Sulfate	260	10	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Turbidity	1.0	0.2	NTU		2130B	10/23/07:210355	2130B	10/23/07:210923

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (), (P) Plastic, (VFS) VOA w/Filters+Syringes Preservatives: H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

November 9, 2007
Nipomo Community Services District

Lab ID : SP 0711942
Customer : 2-14320

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals Boron	200.7	10/26/2007:211090	CCV	ppm	5.000	101 %	90-110	
			CCB	ppm		-0.006	0.10	
			CCV	ppm	5.000	106 %	90-110	
			CCB	ppm		-0.016	0.10	
	3010	10/24/2007:210389	Blank	mg/L		ND	<0.1	
			LCS	mg/L	4.000	92.2 %	85-115	
			MS	mg/L	4.000	95.1 %	75-125	
			MSD	mg/L	4.000	93.1 %	75-125	
			MSRPD	mg/L	0.8000	1.9%	≤20.0	
			PDS	mg/L	4.000	120 %	75-125	
Calcium	200.7	10/26/2007:211090	CCV	ppm	25.00	100 %	90-110	
			CCB	ppm		0.008	1.0	
			CCV	ppm	25.00	102 %	90-110	
			CCB	ppm		0.01	1.0	
	3010	10/24/2007:210389	Blank	mg/L		ND	<1	
			LCS	mg/L	12.50	92.3 %	85-115	
			MS	mg/L	12.50	104 %	75-125	
			MSD	mg/L	12.50	88.4 %	75-125	
			MSRPD	mg/L	0.8000	3.3%	≤20.0	
			PDS	mg/L	12.50	-183 %	75-125	P
Magnesium	200.7	10/26/2007:211090	CCV	ppm	25.00	96.7 %	90-110	
			CCB	ppm		0.009	1.0	
			CCV	ppm	25.00	99.3 %	90-110	
			CCB	ppm		0.009	1.0	
	3010	10/24/2007:210389	Blank	mg/L		ND	<1	
			LCS	mg/L	12.50	92.4 %	85-115	
			MS	mg/L	12.50	104 %	75-125	
			MSD	mg/L	12.50	89.7 %	75-125	
			MSRPD	mg/L	0.8000	3.6%	≤20.0	
			PDS	mg/L	12.50	-156 %	75-125	P
Potassium	200.7	11/08/2007:210919	MS	mg/L	12.50	127 %	<¼	
			MSD	mg/L	12.50	123 %	75-125	
			MSRPD	mg/L	800.0	0.5%	≤20.0	
	200.7	11/08/2007:211554	CCV	ppm	25.00	103 %	90-110	
			CCB	ppm		-0.01	1.0	
			CCV	ppm	25.00	103 %	90-110	
CCB	ppm		-0.03	1.0				
Sodium	200.7	11/08/2007:210919	MS	mg/L	12.50	-1360 %	<¼	
			MSD	mg/L	12.50	-1390 %	<¼	
			MSRPD	mg/L	800.0	0.07%	≤20.0	
	200.7	11/08/2007:211554	CCV	ppm	25.00	98.0 %	90-110	
			CCB	ppm		0.19	1.0	
			CCV	ppm	25.00	100 %	90-110	
CCB	ppm		0.11	1.0				
Zinc	200.7	10/26/2007:211090	CCV	ppm	1.000	96.9 %	90-110	
			CCB	ppm		0.0004	0.02	
			CCV	ppm	1.000	97.2 %	90-110	
			CCB	ppm		-0.0007	0.02	
	3010	10/24/2007:210389	Blank	mg/L		ND	<0.02	
			LCS	mg/L	2.000	92.6 %	85-115	
			MS	mg/L	2.000	96.0 %	75-125	
			MSD	mg/L	2.000	92.1 %	75-125	
			MSRPD	mg/L	0.8000	4.1%	≤20.0	
			PDS	mg/L	2.000	114 %	75-125	
Wet Chem								

November 9, 2007
 Nipomo Community Services District

Lab ID : SP 0711942
 Customer : 2-14320

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note			
Alkalinity (as CaCO3)	2320B	10/25/2007:210429	Dup	mg/L		0.6%	3.42				
	2320B	10/25/2007:210986	CCV	mg/l	234.9	102 %	90-110				
Ammonia Nitrogen	4500NH3G	11/05/2007:211398	CCB	mg/l		0.039	0.2				
			CCV	mg/l	2.000	102 %	90-110				
			CCB	mg/l		0.044	0.2				
			CCV	mg/l	2.000	99.8 %	90-110				
	4500NH3G	11/05/2007:211449	CCB	mg/l		0.035	0.2				
			CCV	mg/l	2.000	106 %	90-110				
			CCB	mg/l		0.016	0.2				
	4500NH3H	10/29/2007:210532	Blank	mg/L		ND	<0.2				
			LCS	mg/L	2.000	80.6 %	63-116				
			MS	mg/L	2.000	90.2 %	17-127				
			MSD	mg/L	2.000	81.2 %	17-127				
	MSRPD	mg/L	2.000	MSRPD	mg/L	2.000	9.4%	≤80.2			
Bicarbonate				2320B	10/25/2007:210429	Dup	mg/l		0.6%	4.78	
Bromide				300.0	10/24/2007:210555	LCS	mg/L	5.000	100 %	90-110	
						MS	mg/L	100.0	109 %	90-121	
	MSD	mg/L	100.0			101 %	90-121				
	MSRPD	mg/L	100.0			7.9%	≤1.61	435			
	300.0	10/24/2007:211123	CCB	ppb		0.0	30				
CCV	ppb	5000	110 %	90-110							
CCB	ppb		0.0	30							
CCV	ppb	5000	107 %	90-110							
Carbonate	2320B	10/25/2007:210429	Dup	mg/l		0.0	10				
Chloride	300.0	10/24/2007:210555	LCS	mg/L	25.00	96.9 %	90-110				
			MS	mg/L	500.0	111 %	86-128				
			MSD	mg/L	500.0	104 %	86-128				
			MSRPD	mg/L	100.0	4.9%	≤23.0				
	300.0	10/24/2007:211123	CCB	ppm		0.05	1				
			CCV	ppm	25.00	107 %	90-110				
CCB	ppm		0.05	1							
CCV	ppm	25.00	107 %	90-110							
Conductivity	2510B	10/25/2007:210972	ICB	umhos/cm		0.1	1				
			ICV	umhos/cm	998.0	99.1 %	95-105				
			CCV	umhos/cm	998.0	99.2 %	95-105				
E. C.	2510B	10/25/2007:210416	Blank	umhos/cm		ND	<1				
			Dup	umhos/cm		0.1%	0.372				
Hydroxide	2320B	10/25/2007:210429	Dup	mg/l		0.0	10				
MBAS	5540C	10/23/2007:210351	MS	mg/L	1.000	100 %	90-110				
			MSD	mg/L	1.000	100 %	90-110				
			MSRPD	mg/L	1.000	0.0	≤0.1				
	5540C	10/23/2007:210924	CCB	mg/L		0.000	0.1				
CCV	mg/L	1.000	100 %	99-101							
Nitrate	300.0	10/24/2007:210555	LCS	mg/L	20.00	98.5 %	90-110				
			MS	mg/L	400.0	112 %	88-124				
			MSD	mg/L	400.0	104 %	88-124				
			MSRPD	mg/L	100.0	6.6%	≤29.1				
	300.0	10/24/2007:211123	CCB	ppm		0.029	0.4				
			CCV	ppm	20.00	108 %	90-110				
CCB	ppm		0.010	0.4							
CCV	ppm	20.00	108 %	90-110							
Nitrite	300.0	10/24/2007:210555	LCS	mg/L	15.00	96.0 %	90-110				
			MS	mg/L	300.0	111 %	91-121				
			MSD	mg/L	300.0	102 %	91-121				
			MSRPD	mg/L	100.0	8.0%	≤23.8				
	300.0	10/24/2007:211123	CCB	ppm		0.014	0.3				
CCV	ppm	15.00	107 %	90-110							

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem Nitrite	300.0	10/24/2007:211123	CCB	ppm		0.014	0.3	
			CCV	ppm	15.00	105 %	90-110	
Nitrogen, Total Kjeldahl	351.1	10/28/2007:210507	Blank	mg/L		ND	<0.5	
			LCS	mg/L	2.000	98.2 %	69-125	
			MS	mg/L	2.000	5.6 %	25-149	435
			MSD	mg/L	2.000	11.6 %	25-149	435
			MSRPD	mg/L	2.000	0.12	≤0.5	
Phosphate	300.0	10/24/2007:210555	LCS	mg/L	15.00	99.2 %	90-110	
			MS	mg/L	300.0	110 %	85-126	
			MSD	mg/L	300.0	101 %	85-126	
			MSRPD	mg/L	100.0	8.8%	≤41.1	
	300.0	10/24/2007:211123	CCB	ppm		0.000	0.5	
			CCV	ppm	15.00	108 %	90-110	
			CCB	ppm		0.000	0.5	
			CCV	ppm	15.00	108 %	90-110	
Solids, Total Dissolved	2540 C,E	10/25/2007:210417	Blank	mg/L		ND	<20	
			LCS	mg/L	1000	99.1 %	90-110	
			LCS	mg/L	1000	101 %	90-110	
			Dup	mg/L		0.3%	10.0	
Sulfate	300.0	10/24/2007:210555	LCS	mg/L	50.00	96.7 %	90-110	
			MS	mg/L	1000	114 %	78-137	
			MSD	mg/L	1000	105 %	78-137	
			MSRPD	mg/L	100.0	6.8%	≤12.3	
	300.0	10/24/2007:211123	CCB	ppm		0.87	2	
			CCV	ppm	50.00	106 %	90-110	
			CCB	ppm		0.86	2	
			CCV	ppm	50.00	106 %	90-110	
Turbidity	2130B	10/23/2007:210355	Dup	NTU		0.0010	0.2	
	2130B	10/23/2007:210923	CCB	NTU		0.059	0.2	
			CCV	NTU	2.000	91.5 %	90-110	
			CCB	NTU		0.060	0.2	
			CCV	NTU	2.000	91.5 %	90-110	

Definition

- ICV : Initial Calibration Verification - Analyzed to verify the instrument calibration is within criteria.
- ICB : Initial Calibration Blank - Analyzed to verify the instrument baseline is within criteria.
- CCV : Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.
- CCB : Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.
- Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
- LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.
- MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
- MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
- Dup : Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.
- MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.
- ND : Non-detect - Result was below the DQO listed for the analyte.
- <¼ : High Sample Background - Spike concentration was less than one fourth of the sample concentration.
- DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.
- Explanation**
- 435 : Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.



ENVIRONMENTAL

Special
www.fgllinc.com

CHAIN OF CUSTODY
Laboratory Copy (1 of 3)

Client: Nipomo Community Services District
Address: Nipomo CSD
Attn: Dan Migliazzo
P. O. Box 326
Nipomo, CA 93444
Phone: (805)929-1341 Fax: (805)929-5090
Contact Person: Dan Migliazzo
Project Name: Southland WWTP - GW - 2
Purchase Order Number:
Quote Number:
Sampler(s):
Sampling Fee: Pickup Fee:
Compositor Sump Date: / / Time: /
Lab Number: SP 211945 2-14320

Sump Num	Location Description	Date Sampled	Time Sampled	Method of Sampling: Composite(C) Grab(G)		Type of Sample **SEE REVERSE SIDE**		Potable(P) Non-Potable(NP) Ag Water(AgW)		Bacti Type: Other(O) System(SYS) Source(SR) Waste(W)		Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL)		Field Test-Field Temp.		Metals, Total-B,Ca,Mg,K,Na,Zn 250ml(P)-HNO3		Wet Chemistry-SO4,TDS,PO4>Total N,NO2,NO3,MBAS,Conductivity,Cl,Br,Alk. (CaCO3),NH3-N,Turbidity		Field Filter PO4 32oz(P), 40ml(VFS), 16oz(P)-H2SO4		Field Test-Field pH !!pH = 15 MINUTE HOLD TIME!!		Field - pH Date		Field - pH Time		Field Test-Field O2 Diss.																	
1	MW3	10/23/07	9:50	G	MW									16.7	1	1.1.1			6.10	10/24/07	15:15																								

Remarks:

Relinquished Date: 10/24/07 Time: 15:15
 Received By: [Signature]
 Relinquished Date: Date: Time:
 Received By: Date: Time:
 Relinquished Date: Date: Time:
 Received By: Date: Time:

Corporate Offices & Laboratory
 P.O. Box 272, 853 Corporation Street
 Santa Paula, CA 93061-0272
 TEL: (805) 392-2000
 FAX: (805) 536-4172

Office & Laboratory
 2500 Stagecoach Road
 Stockton, CA 95215
 TEL: (209) 942-0182
 FAX: (209) 942-0452

Office & Laboratory
 503 East Lindo Avenue
 Clovis, CA 95926
 TEL: (509) 343-5818
 FAX: (509) 343-3807

Field Office
 Visalia, California
 TEL: (559) 734-9474
 Mobile: (559) 737-2809
 FAX: (559) 734-8465

Santa Paula - Condition Upon Receipt (Attach to COC)

Sample Receipt:

- Number of ice chests/packages received: OTC
Note as OTC if received over the counter unpackaged.
- Were samples received in a chilled condition? Temps: 20 / / / /
Acceptable is 2° to 6° C. Also acceptable is received on ice (ROI) for the same day of sampling or received at room temperature (RRT) if sampled within one hour of receipt. Client contact for temperature failures must be documented below. If many packages are received at one time check for tests/H.T.'s/rushes/Bacti's to prioritize further review. Please notify Microbiology personnel immediately of bacti samples received.
- Do the number of bottles received agree with the COC? Yes No N/A
- Were samples received intact? (i.e. no broken bottles, leaks etc.) Yes No
- Were sample custody seals intact? N/A Yes No

Sign and date the COC, obtain LIMS sample numbers, select methods/tests and print labels.

Sample Verification, Labeling and Distribution:

- Were all requested analyses understood and acceptable? Yes No
- Did bottle labels correspond with the client's ID's? Yes No
- Were all bottles requiring sample preservation properly preserved? Yes No N/A FGL
- VOAs checked for Headspace? Yes No N/A
- Were all analyses within holding times at time of receipt? Yes No
- Have rush or project due dates been checked and accepted? N/A Yes No

Attach labels to the containers and include a copy of the COC for lab delivery.

Sample Receipt, Login and Verification completed by (initials):

Discrepancy Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be resolved.

- Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____

Resolution: _____

- Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____

Resolution: _____

(2-14320)
Nipomo Community Services District
SP 0711942



ANALYTICAL CHEMISTS

November 13, 2007

Nipomo CSD
Attn: Dan Migliazzo
P. O. Box 326
Nipomo, CA 93444

Lab ID : SP 0711941
Customer : 2-14320

Laboratory Report

Introduction: This report package contains total of 11 pages divided into 3 sections:

- Case Narrative (2 Pages) : An overview of the work performed at FGL.
Sample Results (5 pages) : Results for each sample submitted.
Quality Control (4 pages) : Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Table with 5 columns: Sample Description, Date Sampled, Date Received, FGL Lab ID #, Matrix. Rows include SW1 through SW5.

Sampling and Receipt Information: All samples were received, prepared and analyzed within the method specified holding times. All samples arrived on ice. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Inorganic - Metals QC

Table with 2 columns: Sample ID, Description. Rows include 200.7 and 3010 with detailed QC notes.

Inorganic - Wet Chemistry QC

2130B	10/23/2007:210355	All preparation quality controls are within established criteria.
	10/23/2007:210923	All analysis quality controls are within established criteria.
2320B	10/25/2007:210429	All preparation quality controls are within established criteria.
	10/25/2007:210986	All analysis quality controls are within established criteria.
2510B	10/25/2007:210416	All preparation quality controls are within established criteria.
	10/25/2007:210972	All analysis quality controls are within established criteria.
2540 C,E	10/25/2007:210417	All preparation quality controls are within established criteria.
300.0	10/24/2007:210555	All preparation quality controls are within established criteria, except: The following note applies to Bromide: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.
	10/24/2007:211123	All analysis quality controls are within established criteria.
351.1	11/05/2007:210770	All preparation quality controls are within established criteria, except: The following note applies to Nitrogen, Total Kjeldahl: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.
	10/30/2007:210560	All preparation quality controls are within established criteria, except: The following note applies to Nitrogen, Total Kjeldahl: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.
	10/28/2007:210507	All preparation quality controls are within established criteria, except: The following note applies to Nitrogen, Total Kjeldahl: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.
	10/28/2007:210507	All preparation quality controls are within established criteria, except: The following note applies to Nitrogen, Total Kjeldahl: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.
4500NH3G	11/09/2007:211573	All analysis quality controls are within established criteria.
	11/05/2007:211449	All analysis quality controls are within established criteria.
	11/05/2007:211398	All analysis quality controls are within established criteria.
4500NH3H	10/31/2007:210614	All preparation quality controls are within established criteria.
	10/29/2007:210532	All preparation quality controls are within established criteria.
5540C	10/23/2007:210351	All preparation quality controls are within established criteria.
	10/23/2007:210924	All analysis quality controls are within established criteria.

Certification: I certify that this data package is in compliance with NELAC standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

Approved By **Kelly A. Dunnahoo, B.S.**

Digitally signed by Kelly A. Dunnahoo, B.S.
 Title: Laboratory Director
 Date: 2007-11-13



ANALYTICAL CHEMISTS

November 13, 2007

Lab ID : SP 0711941-001

Customer ID : 2-14320

Nipomo CSD

Attn: Dan Migliazzo

P. O. Box 326

Nipomo, CA 93444

Sampled On : October 22, 2007-16:30

Sampled By : Not Available

Received On : October 22, 2007-15:30

Matrix : Surface Water

Description : SW1

Project : Southland WWTP - SW

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Field Test								
pH	7.52		units			10/22/07 16:30	4500-H B	10/22/07 16:30
Temperature	15.7		°C			10/22/07 16:30	2550B	10/22/07 16:30
Oxygen, Dissolved	4.3		mg/L			10/22/07 16:30	4500-O G	10/22/07 16:30
Metals, Total ^{P:15}								
Boron	ND	0.1	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Calcium	93	1	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Magnesium	55	1	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Potassium	3	1	mg/L		200.7	11/08/07:210919	200.7	11/08/07:211554
Sodium	148	1	mg/L		200.7	11/08/07:210919	200.7	11/08/07:211554
Zinc	0.02	0.02	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Wet Chemistry ^{P:1}								
Ammonia-N	ND	0.2	mg/L		4500NH3H	10/29/07:210532	4500NH3G	11/05/07:211449
Alkalinity (as CaCO3)- Soluble	380	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Bicarbonate	460	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Carbonate	ND	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Hydroxide	ND	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Bromide	0.59	0.03	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Chloride	155	5	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Conductivity	1400	1	umhos/cm		2510B	10/25/07:210416	2510B	10/25/07:210972
MBAS	ND	0.1	mg/L		5540C	10/23/07:210351	5540C	10/23/07:210924
Nitrate	18.0	0.4	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Nitrate + Nitrite as N	4.1	0.1	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Nitrite	ND	0.3	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Nitrogen, Total as Nitrogen	4.1	0.5	mg/L		351.1	10/30/07:210560	4500NH3G	11/05/07:211398
Nitrate + Nitrite	4.1	0.1	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Kjeldahl Nitrogen	ND	0.5	mg/L		351.1	10/30/07:210560	4500NH3G	11/05/07:211398
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		351.1	10/30/07:210560	4500NH3G	11/05/07:211398
Phosphate	ND	0.5	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Solids, Total Dissolved (TDS)	900	20	mg/L		2540 C,E	10/25/07:210417	2540C	10/26/07:211019
Sulfate	136	2	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Turbidity	5.5	0.2	NTU		2130B	10/23/07:210355	2130B	10/23/07:210923

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: () , (P) Plastic, (VFS) VOA w/Filters+Syringes Preservatives: H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

November 13, 2007

Lab ID : SP 0711941-002

Customer ID : 2-14320

Nipomo CSD

Attn: Dan Migliazzo

P. O. Box 326

Nipomo, CA 93444

Sampled On : October 22, 2007-11:55

Sampled By : Not Available

Received On : October 22, 2007-15:30

Matrix : Surface Water

Description : SW2

Project : Southland WWTP - SW

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Field Test								
pH	7.53		units			10/22/07 11:55	4500-H B	10/22/07 11:55
Temperature	14.5		°C			10/22/07 11:55	2550B	10/22/07 11:55
Oxygen, Dissolved	4.3		mg/L			10/22/07 11:55	4500-O G	10/22/07 11:55
Metals, Total ^{P:15}								
Boron	ND	0.1	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Calcium	80	1	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Magnesium	54	1	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Potassium	1	1	mg/L		200.7	11/08/07:210919	200.7	11/08/07:211554
Sodium	107	1	mg/L		200.7	11/08/07:210919	200.7	11/08/07:211554
Zinc	ND	0.02	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Wet Chemistry ^{P:15}								
Ammonia-N	ND	0.2	mg/L		4500NH3H	10/29/07:210532	4500NH3G	11/05/07:211449
Alkalinity (as CaCO3)-Soluble	330	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Bicarbonate	400	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Carbonate	ND	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Hydroxide	ND	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Bromide	0.44	0.03	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Chloride	120	5	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Conductivity	1280	1	umhos/cm		2510B	10/25/07:210416	2510B	10/25/07:210972
MBAS	ND	0.1	mg/L		5540C	10/23/07:210351	5540C	10/23/07:210924
Nitrate	26.9	0.4	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Nitrate + Nitrite as N	6.1	0.1	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Nitrite	ND	0.3	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Nitrogen, Total as Nitrogen	6.1	0.5	mg/L		351.1	10/30/07:210560	4500NH3G	11/05/07:211398
Nitrate + Nitrite	6.1	0.1	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Kjeldahl Nitrogen	ND	0.5	mg/L		351.1	10/30/07:210560	4500NH3G	11/05/07:211398
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		351.1	10/30/07:210560	4500NH3G	11/05/07:211398
Phosphate	ND	0.5	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Solids, Total Dissolved (TDS)	780	20	mg/L		2540 C.E	10/25/07:210417	2540C	10/26/07:211019
Sulfate	144	2	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Turbidity	1.9	0.2	NTU		2130B	10/23/07:210355	2130B	10/23/07:210923

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (), (P) Plastic, (VFS) VOA w/Filters+Syringes Preservatives: H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

November 13, 2007

Lab ID : SP 0711941-003

Customer ID : 2-14320

Nipomo CSD

Attn: Dan Migliazzo

P. O. Box 326

Nipomo, CA 93444

Sampled On : October 22, 2007-12:55

Sampled By : Not Available

Received On : October 22, 2007-15:30

Matrix : Surface Water

Description : SW3

Project : Southland WWTP - SW

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Field Test								
pH	8.31		units			10/22/07 12:55	4500-H B	10/22/07 12:55
Temperature	15.7		°C			10/22/07 12:55	2550B	10/22/07 12:55
Oxygen, Dissolved	16.0		mg/L			10/22/07 12:55	4500-O G	10/22/07 12:55
Metals, Total ^{P:15}								
Boron	0.2	0.1	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Calcium	93	1	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Magnesium	61	1	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Potassium	2	1	mg/L		200.7	11/08/07:210919	200.7	11/08/07:211554
Sodium	159	1	mg/L		200.7	11/08/07:210919	200.7	11/08/07:211554
Zinc	ND	0.02	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Wet Chemistry ^{P:15}								
Ammonia-N	ND	0.2	mg/L		4500NH3H	10/29/07:210532	4500NH3G	11/05/07:211449
Alkalinity (as CaCO ₃)-Soluble	320	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Bicarbonate	400	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Carbonate	ND	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Hydroxide	ND	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Bromide	0.33	0.03	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Chloride	176	5	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Conductivity	1580	1	umhos/cm		2510B	10/25/07:210416	2510B	10/25/07:210972
MBAS	ND	0.1	mg/L		5540C	10/23/07:210351	5540C	10/23/07:210924
Nitrate	46.5	0.4	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Nitrate + Nitrite as N	10.5	0.1	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Nitrite	0.3	0.3	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Nitrogen, Total as Nitrogen	10.5	0.5	mg/L		351.1	10/30/07:210560	4500NH3G	11/05/07:211398
Nitrate + Nitrite	10.5	0.1	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Kjeldahl Nitrogen	ND	0.5	mg/L		351.1	10/30/07:210560	4500NH3G	11/05/07:211398
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		351.1	10/30/07:210560	4500NH3G	11/05/07:211398
Phosphate	ND	0.5	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Solids, Total Dissolved (TDS)	1040	20	mg/L		2540 C,E	10/25/07:210417	2540C	10/26/07:211019
Sulfate	201	2	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Turbidity	5.0	0.2	NTU		2130B	10/23/07:210355	2130B	10/23/07:210923

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (), (P) Plastic, (VFS) VOA w/Filters+Syringes Preservatives: H₂SO₄ pH < 2, HNO₃ pH < 2



ANALYTICAL CHEMISTS

November 13, 2007

Lab ID : SP 0711941-004

Customer ID : 2-14320

Nipomo CSD

Attn: Dan Migliazzo

P. O. Box 326

Nipomo, CA 93444

Sampled On : October 22, 2007-14:10

Sampled By : Not Available

Received On : October 22, 2007-15:30

Matrix : Surface Water

Description : SW4

Project : Southland WWTP - SW

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Field Test								
pH	7.93		units			10/22/07 14:10	4500-H B	10/22/07 14:10
Temperature	16.3		°C			10/22/07 14:10	2550B	10/22/07 14:10
Oxygen, Dissolved	8.8		mg/L			10/22/07 14:10	4500-O G	10/22/07 14:10
Metals, Total ^{P:15}								
Boron	0.1	0.1	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Calcium	89	1	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Magnesium	57	1	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Potassium	1	1	mg/L		200.7	11/08/07:210919	200.7	11/08/07:211554
Sodium	162	1	mg/L		200.7	11/08/07:210919	200.7	11/08/07:211554
Zinc	ND	0.02	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Wet Chemistry ^{P:1}								
Ammonia-N	ND	0.2	mg/L		4500NH3H	10/29/07:210532	4500NH3G	11/05/07:211449
Alkalinity (as CaCO3)- Soluble	330	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Bicarbonate	410	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Carbonate	ND	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Hydroxide	ND	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Bromide	0.33	0.03	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Chloride	185	5	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Conductivity	1600	1	umhos/cm		2510B	10/25/07:210416	2510B	10/25/07:210972
MBAS	ND	0.1	mg/L		5540C	10/23/07:210351	5540C	10/23/07:210924
Nitrate	41.2	0.4	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Nitrate + Nitrite as N	9.3	0.1	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Nitrite	ND	0.3	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Nitrogen, Total as Nitrogen	9.9	0.5	mg/L		351.1	10/28/07:210507	4500NH3G	11/05/07:211398
Nitrate + Nitrite	9.3	0.1	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Kjeldahl Nitrogen	0.6	0.5	mg/L		351.1	10/28/07:210507	4500NH3G	11/05/07:211398
Nitrogen, Total Kjeldahl	0.6	0.5	mg/L		351.1	10/28/07:210507	4500NH3G	11/05/07:211398
Phosphate	ND	0.5	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Solids, Total Dissolved (TDS)	1030	20	mg/L		2540 C.E	10/25/07:210417	2540C	10/26/07:211019
Sulfate	205	2	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Turbidity	8.2	0.2	NTU		2130B	10/23/07:210355	2130B	10/23/07:210923

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (), (P) Plastic, (VFS) VOA w/Filters+Syringes Preservatives: H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

November 13, 2007

Lab ID : SP 0711941-005

Customer ID : 2-14320

Nipomo CSD

Attn: Dan Migliazzo

P. O. Box 326

Nipomo, CA 93444

Sampled On : October 22, 2007-15:10

Sampled By : Not Available

Received On : October 22, 2007-15:30

Matrix : Surface Water

Description : SW5

Project : Southland WWTP - SW

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Field Test								
pH	7.15		units			10/22/07 15:10	4500-H B	10/22/07 15:10
Temperature	15.6		°C			10/22/07 15:10	2550B	10/22/07 15:10
Oxygen, Dissolved	1.0		mg/L			10/22/07 15:10	4500-O G	10/22/07 15:10
Metals, Total ^{P-15}								
Boron	ND	0.1	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Calcium	101	1	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Magnesium	41	1	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Potassium	2	1	mg/L		200.7	11/08/07:210919	200.7	11/08/07:211554
Sodium	182	1	mg/L		200.7	11/08/07:210919	200.7	11/08/07:211554
Zinc	ND	0.02	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Wet Chemistry ^{P-1}								
Ammonia-N	0.3	0.2	mg/L		4500NH3H	10/31/07:210614	4500NH3G	11/05/07:211449
Alkalinity (as CaCO3)-Soluble	250	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Bicarbonate	310	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Carbonate	ND	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Hydroxide	ND	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Bromide	0.35	0.03	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Chloride	203	5	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Conductivity	1620	1	umhos/cm		2510B	10/25/07:210416	2510B	10/25/07:210972
MBAS	ND	0.1	mg/L		5540C	10/23/07:210351	5540C	10/23/07:210924
Nitrate	29.5	0.4	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Nitrate + Nitrite as N	6.7	0.1	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Nitrite	ND	0.3	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Nitrogen, Total as Nitrogen	7.7	0.5	mg/L		351.1	11/05/07:210770	4500NH3G	11/09/07:211573
Nitrate + Nitrite	6.7	0.1	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Kjeldahl Nitrogen	1.0	0.5	mg/L		351.1	11/05/07:210770	4500NH3G	11/09/07:211573
Nitrogen, Total Kjeldahl	1.0	0.5	mg/L		351.1	11/05/07:210770	4500NH3G	11/09/07:211573
Phosphate	1.9	0.5	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Solids, Total Dissolved (TDS)	1110	20	mg/L		2540 C.E	10/25/07:210417	2540C	10/26/07:211019
Sulfate	250	10	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Turbidity	47.7	0.2	NTU		2130B	10/23/07:210355	2130B	10/23/07:210923

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (), (P) Plastic, (VFS) VOA w/Filters+Syringes Preservatives: H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

November 13, 2007
 Nipomo Community Services District

Lab ID : SP 0711941
 Customer : 2-14320

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals Boron	200.7	10/26/2007:211090	CCV	ppm	5.000	101 %	90-110	
			CCB	ppm		-0.006	0.10	
			CCV	ppm	5.000	106 %	90-110	
			CCB	ppm		-0.016	0.10	
	3010	10/24/2007:210389	Blank	mg/L		ND	<0.1	
			LCS	mg/L	4.000	92.2 %	85-115	
			MS	mg/L	4.000	95.1 %	75-125	
			MSD	mg/L	4.000	93.1 %	75-125	
			MSRPD	mg/L	0.8000	1.9%	≤20.0	
			PDS	mg/L	4.000	120 %	75-125	
Calcium	200.7	10/26/2007:211090	CCV	ppm	25.00	100 %	90-110	
			CCB	ppm		0.008	1.0	
			CCV	ppm	25.00	102 %	90-110	
			CCB	ppm		0.01	1.0	
	3010	10/24/2007:210389	Blank	mg/L		ND	<1	
			LCS	mg/L	12.50	92.3 %	85-115	
			MS	mg/L	12.50	104 %	75-125	
			MSD	mg/L	12.50	88.4 %	75-125	
			MSRPD	mg/L	0.8000	3.3%	≤20.0	
			PDS	mg/L	12.50	-183 %	75-125	P
Magnesium	200.7	10/26/2007:211090	CCV	ppm	25.00	96.7 %	90-110	
			CCB	ppm		0.009	1.0	
			CCV	ppm	25.00	99.3 %	90-110	
			CCB	ppm		0.009	1.0	
	3010	10/24/2007:210389	Blank	mg/L		ND	<1	
			LCS	mg/L	12.50	92.4 %	85-115	
			MS	mg/L	12.50	104 %	75-125	
			MSD	mg/L	12.50	89.7 %	75-125	
			MSRPD	mg/L	0.8000	3.6%	≤20.0	
			PDS	mg/L	12.50	-156 %	75-125	P
Potassium	200.7	11/08/2007:210919	MS	mg/L	12.50	-1.7 %	75-125	435
			MSD	mg/L	12.50	110 %	75-125	435
			MSRPD	mg/L	800.0	148%	≤20.0	
	200.7	11/08/2007:211554	CCV	ppm	25.00	103 %	90-110	
			CCB	ppm		-0.03	1.0	
			CCV	ppm	25.00	106 %	90-110	
			CCB	ppm		0.11	1.0	
			CCV	ppm	25.00	102 %	90-110	
CCB	ppm		-0.05	1.0				
Sodium	200.7	11/08/2007:210919	MS	mg/L	12.50	-197 %	<¼	
			MSD	mg/L	12.50	-84.3 %	<¼	
			MSRPD	mg/L	800.0	10.8%	≤20.0	
	200.7	11/08/2007:211554	CCV	ppm	25.00	100 %	90-110	
			CCB	ppm		0.11	1.0	
			CCV	ppm	25.00	103 %	90-110	
			CCB	ppm		0.18	1.0	
			CCV	ppm	25.00	103 %	90-110	
			CCB	ppm		0.18	1.0	
200.7	11/08/2007:211554	CCV	ppm	25.00	97.6 %	90-110		
		CCB	ppm		0.009	1.0		
		CCV	ppm	1.000	96.9 %	90-110		
200.7	10/26/2007:211090	CCB	ppm		0.0004	0.02		
		CCV	ppm	1.000	97.2 %	90-110		
		CCV	ppm	1.000	97.2 %	90-110		

November 13, 2007
 Nipomo Community Services District

Lab ID : SP 0711941
 Customer : 2-14320

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals Zinc	200.7	10/26/2007:211090	CCB	ppm		-0.0007	0.02	
			Blank	mg/L		ND	<0.02	
			LCS	mg/L	2.000	92.6 %	85-115	
			MS	mg/L	2.000	96.0 %	75-125	
			MSD	mg/L	2.000	92.1 %	75-125	
			MSRPD	mg/L	0.8000	4.1 %	≤20.0	
			PDS	mg/L	2.000	114 %	75-125	
Wet Chem Alkalinity (as CaCO3)	2320B	10/25/2007:210429	Dup	mg/L		0.2%	3.42	
	2320B	10/25/2007:210986	ICV	mg/l	234.9	103 %	90-110	
Ammonia Nitrogen	4500NH3G	11/05/2007:211398	CCB	mg/l		0.039	0.2	
			CCV	mg/l	2.000	102 %	90-110	
			CCB	mg/l		0.044	0.2	
			CCV	mg/l	2.000	99.8 %	90-110	
			CCB	mg/l		0.046	0.2	
			CCV	mg/l	2.000	102 %	90-110	
			CCB	mg/l		0.047	0.2	
			CCV	mg/l	2.000	102 %	90-110	
	4500NH3G	11/05/2007:211449	ICB	mg/l		-0.012	0.2	
			ICV	mg/l	2.000	93.6 %	90-110	
			CCB	mg/l		0.046	0.2	
			CCV	mg/l	2.000	91.2 %	90-110	
			CCB	mg/l		0.035	0.2	
			CCV	mg/l	2.000	106 %	90-110	
			CCB	mg/l		0.016	0.2	
			CCV	mg/l	2.000	106 %	90-110	
	4500NH3G	11/09/2007:211573	ICB	mg/l		-0.056	0.2	
			ICV	mg/l	2.000	92.8 %	90-110	
			CCB	mg/l		-0.036	0.2	
	4500NH3G	11/09/2007:211573	CCV	mg/l	2.000	92.6 %	90-110	
			Blank	mg/L		ND	<0.2	
			LCS	mg/L	2.000	80.6 %	63-116	
	4500NH3H	10/29/2007:210532	MS	mg/L	2.000	90.2 %	17-127	
			MSD	mg/L	2.000	81.2 %	17-127	
MSRPD			mg/L	2.000	9.4 %	≤80.2		
Blank			mg/L		ND	<0.2		
4500NH3H	10/31/2007:210614	LCS	mg/L	2.000	74.6 %	63-116		
		MS	mg/L	2.000	91.7 %	17-127		
		MSD	mg/L	2.000	85.9 %	17-127		
		MSRPD	mg/L	2.000	6.0 %	≤80.2		
Bicarbonate	2320B	10/25/2007:210429	Dup	mg/l		0.2%	4.78	
Bromide	300.0	10/24/2007:210555	LCS	mg/L	5.000	100 %	90-110	
			MS	mg/L	100.0	109 %	90-121	
			MSD	mg/L	100.0	101 %	90-121	
			MSRPD	mg/L	100.0	7.9 %	≤1.61	435
	300.0	10/24/2007:211123	CCB	ppb		0.0	30	
			CCV	ppb	5000	106 %	90-110	
Carbonate	2320B	10/25/2007:210429	CCB	ppb		0.0	30	
			CCV	ppb	5000	110 %	90-110	
			Dup	mg/l		0.0	10	
			MS	mg/L	25.00	96.9 %	90-110	
Chloride	300.0	10/24/2007:210555	MS	mg/L	500.0	111 %	86-128	
			MSD	mg/L	500.0	104 %	86-128	
			MSRPD	mg/L	100.0	4.9 %	≤23.0	
			CCB	ppm		0.05	1	
	300.0	10/24/2007:211123	CCV	ppm	25.00	104 %	90-110	

November 13, 2007
 Nipomo Community Services District

Lab ID : SP 0711941
 Customer : 2-14320

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem Chloride	300.0	10/24/2007:211123	CCB	ppm		0.05	1	
			CCB	ppm		0.05	1	
			CCV	ppm	25.00	107 %	90-110	
			CCV	ppm	25.00	107 %	90-110	
			CCB	ppm		0.05	1	
			CCV	ppm	25.00	107 %	90-110	
Conductivity	2510B	10/25/2007:210972	ICB	umhos/cm		0.1	1	
			ICV	umhos/cm	998.0	99.1 %	95-105	
			CCV	umhos/cm	998.0	99.2 %	95-105	
E. C.	2510B	10/25/2007:210416	Blank Dup	umhos/cm umhos/cm		ND 0.1%	<1 0.372	
Hydroxide	2320B	10/25/2007:210429	Dup	mg/l		0.0	10	
MBAS	5540C	10/23/2007:210351	MS	mg/L	1.000	100 %	90-110	
			MSD	mg/L	1.000	100 %	90-110	
			MSRPD	mg/L	1.000	0.0	≤0.1	
	5540C	10/23/2007:210924	CCB CCV	mg/L mg/L	1.000 1.000	0.000 100 %	0.1 99-101	
Nitrate	300.0	10/24/2007:210555	LCS	mg/L	20.00	98.5 %	90-110	
			MS	mg/L	400.0	112 %	88-124	
			MSD	mg/L	400.0	104 %	88-124	
			MSRPD	mg/L	100.0	6.6%	≤29.1	
	300.0	10/24/2007:211123	CCB	ppm		0.000	0.4	
			CCV	ppm	20.00	105 %	90-110	
Nitrite	300.0	10/24/2007:210555	LCS	mg/L	15.00	96.0 %	90-110	
			MS	mg/L	300.0	111 %	91-121	
			MSD	mg/L	300.0	102 %	91-121	
			MSRPD	mg/L	100.0	8.0%	≤23.8	
	300.0	10/24/2007:211123	CCB	ppm		0.011	0.3	
			CCV	ppm	15.00	103 %	90-110	
Nitrogen, Total Kjeldahl	351.1	10/28/2007:210507	Blank	mg/L		ND	<0.5	
			LCS	mg/L	2.000	98.2 %	69-125	
			MS	mg/L	2.000	5.6 %	25-149	435
			MSD	mg/L	2.000	11.6 %	25-149	435
			MSRPD	mg/L	2.000	0.12	≤0.5	
	351.1	10/30/2007:210560	Blank	mg/L		ND	<0.5	
			LCS	mg/L	2.004	99.3 %	69-125	
			MS	mg/L	2.004	-7.3 %	25-149	435
			MSD	mg/L	2.004	-31.5 %	25-149	435
MSRPD	mg/L	2.004	0.48	≤0.5				
351.1	11/05/2007:210770	Blank	mg/L		ND	<0.5		
		LCS	mg/L	2.004	110 %	69-125		
		MS	mg/L	2.004	1.3 %	25-149	435	
		MSD	mg/L	2.004	7.9 %	25-149	435	
		MSRPD	mg/L	2.004	0.13	≤0.5		
Phosphate	300.0	10/24/2007:210555	LCS	mg/L	15.00	99.2 %	90-110	
			MS	mg/L	300.0	110 %	85-126	
			MSD	mg/L	300.0	101 %	85-126	
			MSRPD	mg/L	100.0	8.8%	≤41.1	
	300.0	10/24/2007:211123	CCB	ppm		0.000	0.5	
			CCV	ppm	15.00	105 %	90-110	
300.0	10/24/2007:211123	CCB	ppm		0.000	0.5		
		CCV	ppm	15.00	108 %	90-110		
Solids, Total Dissolved	2540 C,E	10/25/2007:210417	Blank	mg/L		ND	<20	
			LCS	mg/L	1000	99.1 %	90-110	

November 13, 2007
 Nipomo Community Services District

Lab ID : SP 0711941
 Customer : 2-14320

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
Solids, Total Dissolved	2540 C,E	10/25/2007:210417	LCS Dup	mg/L mg/L	1000	101 % 0.3%	90-110 10.0	
Sulfate	300.0	10/24/2007:210555	LCS	mg/L	50.00	96.7 %	90-110	
			MS	mg/L	1000	114 %	78-137	
			MSD	mg/L	1000	105 %	78-137	
			MSRPD	mg/L	100.0	6.8%	≤12.3	
	300.0	10/24/2007:211123	CCB	ppm		0.88	2	
			CCV	ppm	50.00	104 %	90-110	
			CCB	ppm		0.87	2	
			CCV	ppm	50.00	106 %	90-110	
Turbidity	2130B	10/23/2007:210355	Dup	NTU		0.0010	0.2	
	2130B	10/23/2007:210923	CCB	NTU		0.059	0.2	
			CCV	NTU	2.000	91.5 %	90-110	
			CCB	NTU		0.060	0.2	
			CCV	NTU	2.000	91.5 %	90-110	
Definition								
ICV	: Initial Calibration Verification - Analyzed to verify the instrument calibration is within criteria.							
ICB	: Initial Calibration Blank - Analyzed to verify the instrument baseline is within criteria.							
CCV	: Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.							
CCB	: Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.							
Blank	: Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.							
LCS	: Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.							
MS	: Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.							
MSD	: Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.							
Dup	: Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.							
MSRPD	: MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.							
ND	: Non-detect - Result was below the DQO listed for the analyte.							
<¼	: High Sample Background - Spike concentration was less than one fourth of the sample concentration.							
DQO	: Data Quality Objective - This is the criteria against which the quality control data is compared.							
Explanation								
435	: Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.							



ENVIRONMENTAL

Special
www.fgllinc.com

CHAIN OF CUSTODY
Laboratory Copy (1 of 3)

Client: Nipomo Community Services District
Address: Nipomo CSD
Ann: Dan Migliazzo
Nipomo, CA 93444
Phone: (805)929-1341 Fax: (805)929-5090
Contact Person: Dan Migliazzo
Project Name: Southland WWTP - SW
Purchase Order Number:
Quote Number:
Sampler(s)
Sampling Fee: Pickup Fee:
Compositor Setup Date: 1-1-1 Time: 1-1-1
Lab Number: SP 711924 Time: 2-14320
Method of Sampling: Composite(C) Grab(G)
Type of Sample: **SEE REVERSE SIDE**
Potable(P) Non-Potable(NP) Ag Water(AgW)
Bacti Type: Other(O) System(SYS) Source(SR) Waste(W)
Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL)
Field Test-Field Temp.
Metals, Total-B,Ca,Mg,K,Na,Zn 250ml(P)-HNO3
Wet Chemistry-SO4,TDS,PO4>Total N,NO2,NO3,MBAS,Conductivity,Cl,Br,Alk. (CaCO3),NH3-N,Turbidity
Field Filter PO4 32oz(P), 40ml(VFS), 16oz(P)-H2SO4
Field Test-Field pH !!pH = 15 MINUTE HOLD TIME!!
Field - pH Date
Field - pH Time
Field Test-Field O2 Diss. mg/L

Sampl Num	Location Description	Date Sampled	Time Sampled	Method of Sampling	Type of Sample	Potable(P) Non-Potable(NP) Ag Water(AgW)	Bacti Type	Bacti Reason	Field Test-Field Temp.	Metals, Total-B,Ca,Mg,K,Na,Zn 250ml(P)-HNO3	Wet Chemistry-SO4,TDS,PO4>Total N,NO2,NO3,MBAS,Conductivity,Cl,Br,Alk. (CaCO3),NH3-N,Turbidity	Field Filter PO4 32oz(P), 40ml(VFS), 16oz(P)-H2SO4	Field Test-Field pH !!pH = 15 MINUTE HOLD TIME!!	Field - pH Date	Field - pH Time	Field Test-Field O2 Diss. mg/L
1	SW1	10/22/07	16:30	G	SW				15.7	1	1.1,1	7.52	10/22	16:35	4.3	
2	SW2	10/22/07	11:55	G	SW				14.5	1	1.1,1	7.53	//	12:00	4.3	
3	SW3	10/22/07	12:55	G	SW				15.7	1	1.1,1	8.31	//	12:00	16.0	
4	SW4	10/22/07	14:10	G	SW				16.3	1	1.1,1	7.98	//	14:15	8.8	
5	SW5	10/22/07	15:10	G	SW				15.6	1	1.1,1	7.15	//	15:15	1.0	

Remarks:

Relinquished Date: 10/22/07 Time: 17:30 Received By: Shawn Ross

Relinquished Date: 10/22/07 Time: 17:30 Received By: [Signature]

Relinquished Date: 10/22/07 Time: 17:30 Received By: [Signature]

Relinquished Date: 10/22/07 Time: 15:30 Received By: [Signature]

Corporate Offices & Laboratory
P.O. Box 2727, 853 Corporation Street
Santa Paula, CA 93061-0272
TEL: (805) 380-2000
FAX: (805) 380-4172

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209) 942-0182
FAX: (209) 942-0193

Office & Laboratory
563 East Lindo Avenue
Chico, CA 95926
TEL: (530) 343-5818
FAX: (530) 343-8807

Field Office
Visalia, California
TEL: (559) 734-9473
Mobile: (559) 797-2399
FAX: (559) 734-8435

Santa Paula - Condition Upon Receipt (Attach to COC)

Sample Receipt:

1. Number of ice chests/packages received: 07
Note as OTC if received over the counter unpackaged.
2. Were samples received in a chilled condition? Temps: 14 / / /
Acceptable is 2° to 6° C. Also acceptable is received on ice (ROI) for the same day of sampling or received at room temperature (RRT) if sampled within one hour of receipt. Client contact for temperature failures must be documented below. If many packages are received at one time check for tests/H.T.'s/rushes/Bacti's to prioritize further review. Please notify Microbiology personnel immediately of bacti samples received.
3. Do the number of bottles received agree with the COC? Yes No N/A
4. Were samples received intact? (i.e. no broken bottles, leaks etc.) Yes No
5. Were sample custody seals intact? N/A Yes No

Sign and date the COC, obtain LIMS sample numbers, select methods/tests and print labels.

Sample Verification, Labeling and Distribution:

1. Were all requested analyses understood and acceptable? Yes No
2. Did bottle labels correspond with the client's ID's? Yes No
3. Were all bottles requiring sample preservation properly preserved? Yes No N/A FGL
4. VOAs checked for Headspace? Yes No N/A
5. Were all analyses within holding times at time of receipt? Yes No
6. Have rush or project due dates been checked and accepted? N/A Yes No

Attach labels to the containers and include a copy of the COC for lab delivery.

Sample Receipt, Login and Verification completed by (initials):

Discrepancy Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be resolved.

1. Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____

Resolution: _____

2. Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____

Resolution: _____

(2-14320)
Nipomo Community Services District
SP 0711941



ANALYTICAL CHEMISTS

November 9, 2007

Nipomo CSD
Attn: Dan Migliazzo
P. O. Box 326
Nipomo, CA 93444

Lab ID : SP 0711942
Customer : 2-14320

Laboratory Report

Introduction: This report package contains total of 6 pages divided into 3 sections:

- Case Narrative (2 Pages) : An overview of the work performed at FGL.
Sample Results (1 page) : Results for each sample submitted.
Quality Control (3 pages) : Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Table with 5 columns: Sample Description, Date Sampled, Date Received, FGL Lab ID #, Matrix. Row 1: MW3, 10/23/2007, 10/22/2007, SP 0711942-001, MW

Sampling and Receipt Information: The sample was received, prepared and analyzed within the method specified holding times. All samples arrived on ice. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Inorganic - Metals QC

Table with 2 columns: Sample ID, QC Details. Rows include 200.7 and 3010 with their respective QC dates and descriptions.

Inorganic - Wet Chemistry QC


Table with 2 columns: Sample ID, QC Details. Rows include 2130B with its QC dates and descriptions.

Inorganic - Wet Chemistry QC

2320B	10/25/2007:210986 All analysis quality controls are within established criteria.
2320B	10/25/2007:210429 All preparation quality controls are within established criteria.
2510B	10/25/2007:210416 All preparation quality controls are within established criteria.
	10/25/2007:210972 All analysis quality controls are within established criteria.
2540 C,E	10/25/2007:210417 All preparation quality controls are within established criteria.
300.0	10/24/2007:210555 All preparation quality controls are within established criteria, except: The following note applies to Bromide: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.
	10/24/2007:211123 All analysis quality controls are within established criteria.
351.1	10/28/2007:210507 All preparation quality controls are within established criteria, except: The following note applies to Nitrogen, Total Kjeldahl: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.
4500NH3G	11/05/2007:211449 All analysis quality controls are within established criteria.
	11/05/2007:211398 All analysis quality controls are within established criteria.
4500NH3H	10/29/2007:210532 All preparation quality controls are within established criteria.
5540C	10/23/2007:210351 All preparation quality controls are within established criteria.
	10/23/2007:210924 All analysis quality controls are within established criteria.

Certification: I certify that this data package is in compliance with NELAC standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

Approved By **Kelly A. Dunnahoo, B.S.**

 Digitally signed by Kelly A. Dunnahoo, B.S.
 Title: Laboratory Director
 Date: 2007-11-09



ANALYTICAL CHEMISTS

November 9, 2007

Lab ID : SP 0711942-001

Customer ID : 2-14320

Nipomo CSD

Attn: Dan Migliazzo

P. O. Box 326

Nipomo, CA 93444

Sampled On : October 23, 2007-09:50

Sampled By : Not Available

Received On : October 22, 2007-15:30

Matrix : Monitoring Well

Description : MW3

Project : Southland WWTP - GW - 2

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Field Test								
pH	6.46		units			10/23/07 09:50	4500-H B	10/23/07 09:50
Temperature	16.7		°C			10/23/07 09:50	2550B	10/23/07 09:50
Oxygen, Dissolved	4.7		mg/L			10/23/07 09:50	4500-O G	10/23/07 09:50
Metals, Total ^{P:15}								
Boron	0.3	0.1	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Calcium	87	1	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Magnesium	41	1	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Potassium	3	1	mg/L		200.7	11/08/07:210919	200.7	11/08/07:211554
Sodium	215	1	mg/L		200.7	11/08/07:210919	200.7	11/08/07:211554
Zinc	0.21	0.02	mg/L		3010	10/24/07:210389	200.7	10/26/07:211090
Wet Chemistry ^{P:1}								
Ammonia-N	ND	0.2	mg/L		4500NH3H	10/29/07:210532	4500NH3G	11/05/07:211449
Alkalinity (as CaCO3)-Soluble	200	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Bicarbonate	240	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Carbonate	ND	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Hydroxide	ND	10	mg/L		2320B	10/25/07:210429	2320B	10/25/07:210986
Bromide	ND	0.03	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Chloride	218	5	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Conductivity	1680	1	umhos/cm		2510B	10/25/07:210416	2510B	10/25/07:210972
MBAS	ND	0.1	mg/L		5540C	10/23/07:210351	5540C	10/23/07:210924
Nitrate	76.7	0.4	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Nitrate + Nitrite as N	17.3	0.1	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Nitrite	ND	0.3	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Nitrogen, Total as Nitrogen	17.3	0.5	mg/L		351.1	10/28/07:210507	4500NH3G	11/05/07:211398
Nitrate + Nitrite	17.3	0.1	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Kjeldahl Nitrogen	ND	0.5	mg/L		351.1	10/28/07:210507	4500NH3G	11/05/07:211398
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		351.1	10/28/07:210507	4500NH3G	11/05/07:211398
Phosphate	ND	0.5	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Solids, Total Dissolved (TDS)	1090	20	mg/L		2540 C,E	10/25/07:210417	2540C	10/26/07:211019
Sulfate	260	10	mg/L		300.0	10/24/07:210555	300.0	10/24/07:211123
Turbidity	1.0	0.2	NTU		2130B	10/23/07:210355	2130B	10/23/07:210923

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: () , (P) Plastic, (VFS) VOA w/Filters+Syringes Preservatives: H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

November 9, 2007
 Nipomo Community Services District

Lab ID : SP 0711942
 Customer : 2-14320

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals Boron	200.7	10/26/2007:211090	CCV	ppm	5.000	101 %	90-110	
			CCB	ppm		-0.006	0.10	
			CCV	ppm	5.000	106 %	90-110	
			CCB	ppm		-0.016	0.10	
	3010	10/24/2007:210389	Blank	mg/L		ND	<0.1	
			LCS	mg/L	4.000	92.2 %	85-115	
			MS	mg/L	4.000	95.1 %	75-125	
			MSD	mg/L	4.000	93.1 %	75-125	
			MSRPD	mg/L	0.8000	1.9%	≤20.0	
			PDS	mg/L	4.000	120 %	75-125	
Calcium	200.7	10/26/2007:211090	CCV	ppm	25.00	100 %	90-110	
			CCB	ppm		0.008	1.0	
			CCV	ppm	25.00	102 %	90-110	
			CCB	ppm		0.01	1.0	
	3010	10/24/2007:210389	Blank	mg/L		ND	<1	
			LCS	mg/L	12.50	92.3 %	85-115	
			MS	mg/L	12.50	104 %	75-125	
			MSD	mg/L	12.50	88.4 %	75-125	
			MSRPD	mg/L	0.8000	3.3%	≤20.0	
			PDS	mg/L	12.50	-183 %	75-125	P
Magnesium	200.7	10/26/2007:211090	CCV	ppm	25.00	96.7 %	90-110	
			CCB	ppm		0.009	1.0	
			CCV	ppm	25.00	99.3 %	90-110	
			CCB	ppm		0.009	1.0	
	3010	10/24/2007:210389	Blank	mg/L		ND	<1	
			LCS	mg/L	12.50	92.4 %	85-115	
			MS	mg/L	12.50	104 %	75-125	
			MSD	mg/L	12.50	89.7 %	75-125	
			MSRPD	mg/L	0.8000	3.6%	≤20.0	
			PDS	mg/L	12.50	-156 %	75-125	P
Potassium	200.7	11/08/2007:210919	MS	mg/L	12.50	127 %	<¼	
			MSD	mg/L	12.50	123 %	75-125	
			MSRPD	mg/L	800.0	0.5%	≤20.0	
	200.7	11/08/2007:211554	CCV	ppm	25.00	103 %	90-110	
			CCB	ppm		-0.01	1.0	
			CCV	ppm	25.00	103 %	90-110	
CCB	ppm		-0.03	1.0				
Sodium	200.7	11/08/2007:210919	MS	mg/L	12.50	-1360 %	<¼	
			MSD	mg/L	12.50	-1390 %	<¼	
			MSRPD	mg/L	800.0	0.07%	≤20.0	
	200.7	11/08/2007:211554	CCV	ppm	25.00	98.0 %	90-110	
			CCB	ppm		0.19	1.0	
			CCV	ppm	25.00	100 %	90-110	
CCB	ppm		0.11	1.0				
Zinc	200.7	10/26/2007:211090	CCV	ppm	1.000	96.9 %	90-110	
			CCB	ppm		0.0004	0.02	
			CCV	ppm	1.000	97.2 %	90-110	
			CCB	ppm		-0.0007	0.02	
	3010	10/24/2007:210389	Blank	mg/L		ND	<0.02	
			LCS	mg/L	2.000	92.6 %	85-115	
			MS	mg/L	2.000	96.0 %	75-125	
			MSD	mg/L	2.000	92.1 %	75-125	
			MSRPD	mg/L	0.8000	4.1%	≤20.0	
			PDS	mg/L	2.000	114 %	75-125	
Wet Chem								

November 9, 2007
 Nipomo Community Services District

Lab ID : SP 0711942
 Customer : 2-14320

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Alkalinity (as CaCO3)	2320B	10/25/2007:210429	Dup	mg/L		0.6%	3.42	
	2320B	10/25/2007:210986	CCV CCV	mg/l mg/l	234.9 234.9	102 % 101 %	90-110 90-110	
Ammonia Nitrogen	4500NH3G	11/05/2007:211398	CCB	mg/l		0.039	0.2	
			CCV	mg/l	2.000	102 %	90-110	
			CCB	mg/l		0.044	0.2	
			CCV	mg/l	2.000	99.8 %	90-110	
	4500NH3G	11/05/2007:211449	CCB	mg/l		0.035	0.2	
			CCV	mg/l	2.000	106 %	90-110	
			CCB CCV	mg/l mg/l		0.016 106 %	0.2 90-110	
	4500NH3H	10/29/2007:210532	Blank	mg/L		ND	<0.2	
			LCS	mg/L	2.000	80.6 %	63-116	
MS			mg/L	2.000	90.2 %	17-127		
MSD MSRPD			mg/L mg/L	2.000 2.000	81.2 % 9.4 %	17-127 ≤80.2		
Bicarbonate	2320B	10/25/2007:210429	Dup	mg/l		0.6%	4.78	
Bromide	300.0	10/24/2007:210555	LCS	mg/L	5.000	100 %	90-110	
			MS	mg/L	100.0	109 %	90-121	
			MSD	mg/L	100.0	101 %	90-121	
			MSRPD	mg/L	100.0	7.9%	≤1.61	435
	300.0	10/24/2007:211123	CCB	ppb		0.0	30	
			CCV CCB CCV	ppb ppb ppb	5000 5000 5000	110 % 0.0 107 %	90-110 30 90-110	
Carbonate	2320B	10/25/2007:210429	Dup	mg/l		0.0	10	
Chloride	300.0	10/24/2007:210555	LCS	mg/L	25.00	96.9 %	90-110	
			MS	mg/L	500.0	111 %	86-128	
			MSD	mg/L	500.0	104 %	86-128	
			MSRPD	mg/L	100.0	4.9%	≤23.0	
	300.0	10/24/2007:211123	CCB	ppm		0.05	1	
			CCV CCB CCV	ppm ppm ppm	25.00 25.00 25.00	107 % 0.05 107 %	90-110 1 90-110	
Conductivity	2510B	10/25/2007:210972	ICB	umhos/cm		0.1	1	
			ICV	umhos/cm	998.0	99.1 %	95-105	
			CCV	umhos/cm	998.0	99.2 %	95-105	
E. C.	2510B	10/25/2007:210416	Blank Dup	umhos/cm umhos/cm		ND 0.1%	<1 0.372	
Hydroxide	2320B	10/25/2007:210429	Dup	mg/l		0.0	10	
MBAS	5540C	10/23/2007:210351	MS	mg/L	1.000	100 %	90-110	
			MSD	mg/L	1.000	100 %	90-110	
			MSRPD	mg/L	1.000	0.0	≤0.1	
	5540C	10/23/2007:210924	CCB CCV	mg/L mg/L	1.000 1.000	0.000 100 %	0.1 99-101	
Nitrate	300.0	10/24/2007:210555	LCS	mg/L	20.00	98.5 %	90-110	
			MS	mg/L	400.0	112 %	88-124	
			MSD	mg/L	400.0	104 %	88-124	
			MSRPD	mg/L	100.0	6.6%	≤29.1	
	300.0	10/24/2007:211123	CCB	ppm		0.029	0.4	
			CCV CCB CCV	ppm ppm ppm	20.00 20.00 20.00	108 % 0.010 108 %	90-110 0.4 90-110	
Nitrite	300.0	10/24/2007:210555	LCS	mg/L	15.00	96.0 %	90-110	
			MS	mg/L	300.0	111 %	91-121	
			MSD	mg/L	300.0	102 %	91-121	
			MSRPD	mg/L	100.0	8.0%	≤23.8	
	300.0	10/24/2007:211123	CCB	ppm		0.014	0.3	
			CCV	ppm	15.00	107 %	90-110	

November 9, 2007
 Nipomo Community Services District

Lab ID : SP 0711942
 Customer : 2-14320

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
Nitrite	300.0	10/24/2007:211123	CCB CCV	ppm ppm	15.00	0.014 105 %	0.3 90-110	
Nitrogen, Total Kjeldahl	351.1	10/28/2007:210507	Blank LCS MS MSD MSRPD	mg/L mg/L mg/L mg/L mg/L	2.000 2.000 2.000 2.000	ND 98.2 % 5.6 % 11.6 % 0.12	<0.5 69-125 25-149 25-149 ≤0.5	435 435
Phosphate	300.0	10/24/2007:210555	LCS MS MSD MSRPD	mg/L mg/L mg/L mg/L	15.00 300.0 300.0 100.0	99.2 % 110 % 101 % 8.8 %	90-110 85-126 85-126 ≤41.1	
	300.0	10/24/2007:211123	CCB CCV CCB CCV	ppm ppm ppm ppm	15.00 15.00 15.00	0.000 108 % 0.000 108 %	0.5 90-110 0.5 90-110	
Solids, Total Dissolved	2540 C,E	10/25/2007:210417	Blank LCS LCS Dup	mg/L mg/L mg/L mg/L	1000 1000	ND 99.1 % 101 % 0.3 %	<20 90-110 90-110 10.0	
Sulfate	300.0	10/24/2007:210555	LCS MS MSD MSRPD	mg/L mg/L mg/L mg/L	50.00 1000 1000 100.0	96.7 % 114 % 105 % 6.8 %	90-110 78-137 78-137 ≤12.3	
	300.0	10/24/2007:211123	CCB CCV CCB CCV	ppm ppm ppm ppm	50.00 50.00 50.00	0.87 106 % 0.86 106 %	2 90-110 2 90-110	
Turbidity	2130B	10/23/2007:210355	Dup	NTU		0.0010	0.2	
	2130B	10/23/2007:210923	CCB CCV CCB CCV	NTU NTU NTU NTU	2.000 2.000	0.059 91.5 % 0.060 91.5 %	0.2 90-110 0.2 90-110	
Definition	<p>ICV : Initial Calibration Verification - Analyzed to verify the instrument calibration is within criteria. ICB : Initial Calibration Blank - Analyzed to verify the instrument baseline is within criteria. CCV : Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria. CCB : Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria. Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples. LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery. MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery. MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery. Dup : Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis. MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis. ND : Non-detect - Result was below the DQO listed for the analyte. <1/4 : High Sample Background - Spike concentration was less than one fourth of the sample concentration. DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.</p>							
Explanation	<p>435 : Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.</p>							



ENVIRONMENTAL

Special

www.fglinc.com

CHAIN OF CUSTODY

Laboratory Copy (1 of 3)

Client: Nipomo Community Services District
Address: Nipomo CSD
Attn: Dan Migliazzo
P. O. Box 326
Nipomo, CA 93444
Phone: (805)929-1341 Fax: (805)929-5090
Contact Person: Dan Migliazzo
Project Name: **Southland WWTP - GW - 2**
Purchase Order Number:
Queue Number:
Sampler(s):
Sampling Fee: Pickup Fee:
Compositor Sump Date: / / Time: / /
Lab Number: **SP 11199D** 2-14320
Sump Num Location Description Date Sampled Time Sampled
1 MW3 10/23/07 9:50
Remarks:

2261-10/17/2007	TEST DESCRIPTION - See Reverse side for Container, Preservative and Sampling Information														
Method of Sampling: Composite(C) Grab(G)	Type of Sample **SEE REVERSE SIDE**	Potable(P) Non-Potable(NP) Ag Water(AgW)	Bacti Type: Other(O) System(SYS) Source(SR) Waste(W)	Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL)	Field Test-Field Temp.	Metals, Total-B,Ca,Mg,K,Na,Zn 250ml(P)-HNO3	Wet Chemistry-SO4,TDS,PO4,Total N,NO2,NO3,MBAS, Conductivity, Cl,Br,Alk. (CaCO3),NH3-N,Turbidity	Field Filter PO4 32oz(P), 40ml(VFS), 16oz(P)-H2SO4	Field Test-Field pH !!pH = 15 MINUTE HOLD TIME!!	Field - pH Date	Field - pH Time	Field Test-Field O2 Diss.			
G	MW				16.7	1	1.1.1		6.46	10/23/07	10:15	4.7			
Reinquished	Received By:	Date:	Time:	Reinquished	Received By:	Date:	Time:	Reinquished	Received By:	Date:	Time:	Reinquished	Received By:	Date:	Time:
	<i>Neil P Jones</i>	10/24/07	15:15												

Corporate Offices & Laboratory
P.O. Box 272 / 853 Corporation Street
Santa Paula, CA 93061-0272
TEL: (805) 592-2000
FAX: (805) 526-4172

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209) 942-0182
FAX: (209) 942-0473

Office & Laboratory
563 East Lindo Avenue
Chico, CA 95926
TEL: (530) 343-5018
FAX: (530) 343-3807

Field Office
Visalia, California
TEL: (559) 734-8474
Mobile: (559) 737-2809
FAX: (559) 744-8475

Santa Paula - Condition Upon Receipt (Attach to COC)

Sample Receipt:

1. Number of ice chests/packages received: OTC
Note as OTC if received over the counter unpackaged.
2. Were samples received in a chilled condition? Temps: 10 / / / /
Acceptable is 2° to 6° C. Also acceptable is received on ice (ROI) for the same day of sampling or received at room temperature (RRT) if sampled within one hour of receipt. Client contact for temperature failures must be documented below. If many packages are received at one time check for tests/H.T.'s/rushes/Bacti's to prioritize further review. Please notify Microbiology personnel immediately of bacti samples received.
3. Do the number of bottles received agree with the COC? Yes No N/A
4. Were samples received intact? (i.e. no broken bottles, leaks etc.) Yes No
5. Were sample custody seals intact? N/A Yes No

Sign and date the COC, obtain LIMS sample numbers, select methods/tests and print labels.

Sample Verification, Labeling and Distribution:

1. Were all requested analyses understood and acceptable? Yes No
2. Did bottle labels correspond with the client's ID's? Yes No
3. Were all bottles requiring sample preservation properly preserved? Yes No N/A FGL
4. VOAs checked for Headspace? Yes No N/A
5. Were all analyses within holding times at time of receipt? Yes No
6. Have rush or project due dates been checked and accepted? N/A Yes No

Attach labels to the containers and include a copy of the COC for lab delivery.

Sample Receipt, Login and Verification completed by (initials):

Discrepancy Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be resolved.

1. Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____

Resolution: _____

2. Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____

Resolution: _____

(2-14320)
Nipomo Community Services District
SP 0711942



ANALYTICAL CHEMISTS

November 12, 2007

Lab ID : SP 711739
Customer : 2014320

Nipomo CSD
Attn: Dan Migliazzo
P. O. Box 326
Nipomo, CA 93444

Laboratory Report

Introduction: This report package contains total of 5 pages divided into three sections:

- Case Narrative (2 Pages): An overview of the work performed at FGL.
Chemical Results (1 Page): Results for each sample submitted.
Quality Control (2 Pages): Supporting Quality Control (QC) results.

This report package pertains to the following sample:

Table with 5 columns: Sample Description, Date Sampled, Date Received, FGL Lab Sample ID #, Matrix. Row 1: Effluent, 10/17/2007, 10/17/2007, SP 711739-01, WW

Sampling and Receipt Information: The sample was received, prepared and analyzed within the method specified holding times. All samples were received on ice. All samples were checked for pH if acid or base preservation required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Forms.

Quality Control: All samples were prepared and analyzed according to the following tables:

Inorganic - Wet Chemistry QC

Table with 2 columns: Sample ID, Description. Rows include quality control details for samples 300.0, 351.1, and 4500NH3H.

Case narrative continued on next page...

November 12, 2007

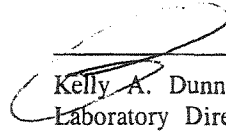
Lab ID : SP 711739
Customer : 2014320

Nipomo CSD

Certification: I certify that this data package is in compliance with NELAC Standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following signature.

FGL ENVIRONMENTAL

KAD:cea



Kelly A. Dunnahoo, B.S.
Laboratory Director



ANALYTICAL CHEMISTS

November 12, 2007

Lab ID : SP 711739-01
Customer ID: 2-14320

Nipomo CSD
Attn: Dan Migliazzo
P. O. Box 326
Nipomo, CA 93444

Sampled On : October 17, 2007-08:50
Sampled By : Rick Motley
Received On: October 17, 2007-16:00
Matrix : Waste Water

Description : Effluent
Project : Southland WWTP 97-75

Sample Results - Inorganic

Constituent	Results	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Field Test								
pH	7.97	-	units			10/17/07:FS00		10/17/2007:
Temperature	18.5		oC			10/17/07:FS00		10/17/2007:
Special Inorg. P:1,4 Un-ionized Ammonia-N	0.58	0.04*	mg/L		4500NH3H	10/22/07:A203	4500NH3G	10/24/2007:B00
Wet Chemistry P:1								
Ammonia-N	32	2*	mg/L		4500NH3H	10/22/07:A203	4500NH3G	10/24/2007:B00
Nitrate	ND	0.4	mg/L		300.0	10/17/07:B215 17:35	300.0	10/18/2007:A00 05:11
Nitrite	ND	0.3	mg/L		300.0	10/17/07:B215 17:35	300.0	10/18/2007:A00 05:11
Nitrogen, Total	27	2.5*	mg/L		Calculation		Calculation	
Nitrate + Nitrite as N	ND	0.1	mg/L		300.0	10/17/07:B215 17:35	300.0	10/18/2007:A00 05:11
Kjeldahl Nitrogen	27	2.5*	mg/L		351.1	10/23/07:A242	4500NH3G	10/30/2007:A00

ND=Non-Detect. PQL=Practical Quantitation Limit. ♦ PQL adjusted for dilutions, concentrations, dry weight reporting, or limited sample.
Containers: (P) Plastic Preservatives: (1) Cool 4°C, (4) H2SO4 pH < 2



ANALYTICAL CHEMISTS
November 12, 2007
Nipomo CSD

Lab ID : SP 711739
Customer : 2-14320

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Un-ionized Ammonia-N	4500NH3G	10/24/2007:B	00-ICB	mg/l		ND	<0.2	
			00-CCB	mg/l		ND	<0.2	
			00-ICV	mg/l	2.000	98.4%	90-110	
			00-CCV	mg/l	2.000	99.1%	90-110	
Wet Chem Kjeldahl Nitrogen	351.1	10/23/2007:A242 (CH 776099-01)	Blank	mg/L		ND	<0.5	
			LCS	mg/L	2.000	94.0%	69-125	
			MS	mg/L	2.000	150%	< ¼	408
			MSD	mg/L	2.000	-37.5%	< ¼	408
			MSRPD	mg/L		15.1%	≤25.7	
Ammonia Nitrogen	4500NH3G	10/30/2007:A	00-ICB	mg/l		ND	<0.2	
			00-CCB	mg/l		ND	<0.2	
			00-ICV	mg/l	2.000	94.7%	90-110	
			00-CCV	mg/l	2.000	98.4%	90-110	
Nitrate	300.0	10/17/2007:B215 (SP 711720-01)	LCS	mg/L	20.00	102%	90-110	
			MS	mg/L	400.0	105%	88-124	
			MSD	mg/L	400.0	105%	88-124	
			MSRPD	mg/L		0.1%	≤29.1	
Ammonia-N	4500NH3H	10/22/2007:A203 (SP 711542-03)	Blank	mg/L		ND	<0.05	
			LCS	mg/L	2.000	80.0%	63-116	
			MS	mg/L	2.000	91.5%	17-127	
			MSD	mg/L	2.000	83.4%	17-127	
			MSRPD	mg/L		5.9%	≤80.2	
Nitrate	300.0	10/17/2007:B215 (SP 711720-01)	LCS	mg/L	20.00	102%	90-110	
			MS	mg/L	400.0	105%	88-124	
			MSD	mg/L	400.0	105%	88-124	
			MSRPD	mg/L		0.1%	≤29.1	
	300.0	10/17/2007:A	00-ICB	ppm		ND	<0.4	
			00-CCB	ppm		ND	<0.4	
			00-ICV	ppm	40.00	103%	90-110	
			00-CCV	ppm	20.00	100%	90-110	
Nitrite	300.0	10/17/2007:B215 (SP 711720-01)	LCS	mg/L	15.00	101%	90-110	
			MS	mg/L	300.0	105%	91-121	
			MSD	mg/L	300.0	105%	91-121	
			MSRPD	mg/L		0.07%	≤23.8	
	300.0	10/17/2007:A	00-ICB	ppm		ND	<0.3	
			00-CCB	ppm		ND	<0.3	
			00-ICV	ppm	30.00	103%	90-110	
			00-CCV	ppm	15.00	99.4%	90-110	

Explanations and definitions are continued on next page...

November 12, 2007
Nipomo CSD

Lab ID : SP 711739
Customer : 2-14320

Quality Control - Inorganic

Explanations

408 Matrix Spike(MS) or Post Digestion Spike(PDS) has no Acceptance Range (DQO) because of high analyte concentration in the sample. Data was accepted based on the LCS or CCV recovery.

Definitions

Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.
MS/MSD : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
ICB : Initial Calibration Blank - Analyzed to verify the instrument baseline is within criteria.
ICV : Initial Calibration Verification - Analyzed to verify the instrument calibration is within criteria.
CCB : Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.
CCV : Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.
ND : Non-detect - Result was below the DQO listed for the analyte.
< ¼ : High Sample Background - Spike concentration was less than one fourth of the sample concentration.
DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.



ENVIRONMENTAL

Weekly

www.environmental.com

CHAIN OF CUSTODY

Laboratory Copy (1 of 3)



2102-10/01/2007

TEST DESCRIPTION - See Reverse side for Container, Preservative and Sampling information

M060

Client: Nipomo Community Services District
Address: Nipomo CSD
Attn: Dan Migliazzo
P. O. Box 326
Nipomo, CA 93444

Phone: (805)929-1341 Fax: (805)929-5090
Contact Person: Dan Migliazzo

Project Name: Southland WWTP 97-75
Purchase Order Number:

Quote Number:

Sampler(s) Rick Morley

Sampling Fee: Pickup Fee: 2-14320
Compositor Setup Date: 12/16/07 Time: 4:00

Lab Number: SP 11734

Sample Num	Location Description	Date Sampled	Time Sampled	Method of Sampling: Composite(C) Grab(G)	Type of Sample	Potable(P) Non-Potable(NP) Ag Water(AgW)	Bacti Type: Other(O) System(SYS) Source(SR) Waste(W)	Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL)	Field Test-Field pH !!pH = 15 MINUTE HOLD TIME!!	Field - pH Date	Field - pH Time	Special Inorg. - Un-ionized Ammonia	Requires Field pH & Temperature to Calculate 16oz(P)-H2SO4	Wet Chemistry-Total N,NO2,NO3,NH3-N 16oz(P)	Field Test-Field Temp.	Remarks:
1	Effluent	12/17/07	9:55	G	**SEE REVERSE SIDE**				7.97	12/17/07	9		1	1	18.5	
																Relinquished
																Received By: [Signature]
																Relinquished
																Received By: [Signature]
																Relinquished
																Received By: [Signature]

Relinquished Date: 12/17/07 Time: 9:55 AM
 Received By: [Signature] Date: 12/17/07 Time: 9:55 AM
 Relinquished Date: 12/17/07 Time: 10:17 AM
 Received By: [Signature] Date: 12/17/07 Time: 10:17 AM

Corporate Offices & Laboratory
 P.O. Box 272, 1853 Corporation Street
 Santa Paula, CA 93061-0272
 TEL: (805) 382-2000 FAX: (805) 572-4779

Office & Laboratory
 2500 Stagecoach Road
 Stockton, CA 95215
 TEL: (209) 942-0182 FAX: (209) 942-0166

Office & Laboratory
 563 East Linden Avenue
 Chico, CA 95926
 TEL: (530) 344-5818 FAX: (530) 344-6000

Field Office
 Visalia, California
 TEL: (589) 734-9475
 Phone: (589) 734-9475 FAX: (589) 734-9475

Santa Paula - Condition Upon Receipt (Attach to COC)

Sample Receipt:

1. Number of ice chests/packages received: 1
Note as OTC if received over the counter unpackaged.
2. Were samples received in a chilled condition? Temps: 80 / _____ / _____ / _____ / _____
Acceptable is above freezing to 6° C. Also acceptable is received on ice (ROI) for the same day of sampling or received at room temperature (RRT) if sampled within one hour of receipt. Client contact for temperature failures must be documented below. If many packages are received at one time check for tests/H.T.'s/rushes/Bacti's to prioritize further review. Please notify Microbiology personnel immediately of bacti samples received.
3. Do the number of bottles received agree with the COC? Yes No N/A
4. Were samples received intact? (i.e. no broken bottles, leaks etc.) Yes No
5. Were sample custody seals intact? N/A Yes No

Sign and date the COC, obtain LIMS sample numbers, select methods/tests and print labels.

Sample Verification, Labeling and Distribution:

1. Were all requested analyses understood and acceptable? Yes No
2. Did bottle labels correspond with the client's ID's? Yes No
3. Were all bottles requiring sample preservation properly preserved? Yes No N/A FGL
4. Were all analyses within holding times at time of receipt? Yes No
5. Have rush or project due dates been checked and accepted? N/A Yes No

Attach labels to the containers and include a copy of the COC for lab delivery.

Sample Receipt, Login and Verification completed by (initials):

ll

Discrepancy Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be resolved.

1. Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem:

Resolution:

2. Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem:

Resolution:

(2-14320)
Nipomo Community Services District

SP 0711739

IV-10/17/2007-16:16:09



ANALYTICAL CHEMISTS

November 12, 2007

Lab ID : SP 711362

Customer : 2014320

Nipomo CSD
Attn: Dan Migliazzo
P. O. Box 326
Nipomo, CA 93444

Laboratory Report

Introduction: This report package contains total of 5 pages divided into three sections:

- Case Narrative (2 Pages): An overview of the work performed at FGL.
Chemical Results (1 Page): Results for each sample submitted.
Quality Control (2 Pages): Supporting Quality Control (QC) results.

This report package pertains to the following sample:

Table with 5 columns: Sample Description, Date Sampled, Date Received, FGL Lab Sample ID #, Matrix. Row 1: Effluent, 10/10/2007, 10/10/2007, SP 711362-01, WW

Sampling and Receipt Information: The sample was received, prepared and analyzed within the method specified holding times. All samples were received on ice. All samples were checked for pH if acid or base preservation required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Forms.

Quality Control: All samples were prepared and analyzed according to the following tables:

Inorganic - Wet Chemistry QC

Table with 2 columns: Sample ID, Description. Rows include quality control details for samples 300.0, 351.1, and 4500NH3H.

Case narrative continued on next page...

November 12, 2007

Lab ID : SP 711362
Customer : 2014320

Nipomo CSD

Certification: I certify that this data package is in compliance with NELAC Standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following signature.

FGL ENVIRONMENTAL



Kelly A. Dunnahoo, B.S.
Laboratory Director

KAD:cea



ANALYTICAL CHEMISTS

November 12, 2007

Lab ID : SP 711362-01
Customer ID: 2-14320

Nipomo CSD
Attn: Dan Migliazzo
P. O. Box 326
Nipomo, CA 93444

Sampled On : October 10, 2007-08:40
Sampled By : Rick Motley
Received On: October 10, 2007-16:20
Matrix : Waste Water

Description : Effluent
Project : Southland WWTP 97-75

Sample Results - Inorganic

Table with 7 columns: Constituent, Results, PQL, Units, Note, Sample Preparation Method, Date/ID, Sample Analysis Method, Date/ID. Rows include Field Test (pH, Temperature), Special Inorg. (Un-ionized Ammonia-N), and Wet Chemistry (Ammonia-N, Nitrate, Nitrite, Nitrogen Total, Kjeldahl Nitrogen).

ND=Non-Detect. PQL=Practical Quantitation Limit. ♦ PQL adjusted for dilutions, concentrations, dry weight reporting, or limited sample.
Containers: (P) Plastic Preservatives: (1) Cool 4°C, (4) H2SO4 pH < 2



ANALYTICAL CHEMISTS
 November 12, 2007
 Nipomo CSD

Lab ID : SP 711362
 Customer : 2-14320

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Un-ionized Ammonia-N	4500NH3H	10/19/2007:A203 (CH 776212-01)	Blank	mg/L		ND	<0.2	
			LCS	mg/L	2.000	74.9%	63-116	
			MS	mg/L	2.000	93.1%	17-127	
			MSD	mg/L	2.000	79.6%	17-127	
			MSRPD	mg/L		14.8%	≤80.2	
	4500NH3G	10/23/2007:A	00-ICB	mg/l		ND	<0.2	
			00-CCB	mg/l		ND	<0.2	
			00-ICV	mg/l	2.000	99.4%	90-110	
			00-CCV	mg/l	2.000	96.2%	90-110	
Wet Chem Kjeldahl Nitrogen	351.1	10/23/2007:A242 (CH 776099-01)	Blank	mg/L		ND	<0.5	
			LCS	mg/L	2.000	94.0%	69-125	408
			MS	mg/L	2.000	150%	< ¼	408
			MSD	mg/L	2.000	-37.5%	< ¼	
			MSRPD	mg/L		15.1%	≤25.7	
Ammonia Nitrogen	4500NH3G	10/30/2007:A	00-ICB	mg/l		ND	<0.2	
			00-CCB	mg/l		ND	<0.2	
			00-ICV	mg/l	2.000	94.7%	90-110	
			00-CCV	mg/l	2.000	98.4%	90-110	
Nitrate	300.0	10/11/2007:A215 (STK739565-01)	LCS	mg/L	20.00	99.7%	90-110	
			MS	mg/L	400.0	107%	88-124	
			MSD	mg/L	400.0	108%	88-124	
			MSRPD	mg/L		0.8%	≤29.1	
Ammonia-N	4500NH3H	10/19/2007:A203 (CH 776212-01)	Blank	mg/L		ND	<0.2	
			LCS	mg/L	2.000	74.9%	63-116	
			MS	mg/L	2.000	93.1%	17-127	
			MSD	mg/L	2.000	79.6%	17-127	
			MSRPD	mg/L		14.8%	≤80.2	
Nitrate	300.0	10/11/2007:A215 (STK739565-01)	LCS	mg/L	20.00	99.7%	90-110	
			MS	mg/L	400.0	107%	88-124	
	300.0	10/11/2007:A	00-ICB	ppm		ND	<0.4	
			00-CCB	ppm		ND	<0.4	
			00-ICV	ppm	40.00	102%	90-110	
			00-CCV	ppm	20.00	99.1%	90-110	
Nitrite	300.0	10/11/2007:A215 (STK739565-01)	LCS	mg/L	15.00	99.9%	90-110	
			MS	mg/L	300.0	106%	91-121	
	300.0	10/11/2007:A	MSD	mg/L	300.0	107%	91-121	
			MSRPD	mg/L		0.9%	≤23.8	
			00-ICB	ppm		ND	<0.3	
			00-CCB	ppm		ND	<0.3	
			00-ICV	ppm	30.00	102%	90-110	
			00-CCV	ppm	15.00	99.2%	90-110	

Explanations and definitions are continued on next page...

November 12, 2007
Nipomo CSD

Lab ID : SP 711362
Customer : 2-14320

Quality Control - Inorganic

Explanations	
408	Matrix Spike(MS) or Post Digestion Spike(PDS) has no Acceptance Range (DQO) because of high analyte concentration in the sample. Data was accepted based on the LCS or CCV recovery.
Definitions	
Blank	: Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
LCS	: Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.
MS/MSD	: Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
ICB	: Initial Calibration Blank - Analyzed to verify the instrument baseline is within criteria.
ICV	: Initial Calibration Verification - Analyzed to verify the instrument calibration is within criteria.
CCB	: Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.
CCV	: Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.
ND	: Non-detect - Result was below the DQO listed for the analyte.
< ¼	: High Sample Background - Spike concentration was less than one fourth of the sample concentration.
DQO	: Data Quality Objective - This is the criteria against which the quality control data is compared.



ENVIRONMENTAL

www.egci.com

Weekly

CHAIN OF CUSTODY

Laboratory Copy (1 of 3)



2102:10/01/2007

TEST DESCRIPTION - See Reverse side for Container, Preservative and Sampling Information

M1060

Client: Nipomo Community Services District

Address: Nipomo CSD

Attn: Dan Migliazzo
P. O. Box 326
Nipomo, CA 93444

Phone: (805)929-1341 Fax: (805)929-5090

Contact Person: Dan Migliazzo

Project Name: Southland WWTP 97-75

Purchase Order Number:

Quote Number:

Samplers(s) *Rick Watson*

Sampling Fee: Pickup Fee:

Compositor Setup Date: *10/18/07* Time: *4:45*

Lab Number: *SP* *2113162* 2-14320

Sample Num	Location Description	Date Sampled	Time Sampled	Method of Sampling: Composite(C) Grab(G)	Type of Sample **SEE REVERSE SIDE**	Potable(P) Non-Potable(NP) Ag Water(AgW)	Bacti Type: Other(O) System(SYS) Source(SR) Waste(W)	Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL)	Field Test-Field pH !!pH = 15 MINUTE HOLD TIME!!	Field - pH Date	Field - pH Time	Special Inorg.- Un-ionized Ammonia	Requires Field pH & Temperature to Calculate 16oz(P)-H2SO4	Wet Chemistry-Total N,NO2,NO3,NH3-N 16oz(P)	Field Test-Field Temp.	Remarks:
1	Effluent	10/18/07	8:40	G	WW				7.8	10/18	9:00	1	1	10.4	<i>Rick Watson 10/18/07 9:15</i>	
															<i>MP</i>	

Corporate Offices & Laboratory
P. O. Box 272 / 853 Corporation Street
Santa Paula, CA 93061-0272
TEL: (805) 382-2000
FAX: (805) 505-4172

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209) 942-0182
FAX: (209) 942-0199

Office & Laboratory
583 East Linden Avenue
Chico, CA 95926
TEL: (530) 343-5816
FAX: (530) 343-5007

Field Office
Visalia, California
TEL: (559) 732-5750
FAX: (559) 732-5750

Santa Paula - Condition Upon Receipt (Attach to COC)

Sample Receipt:

1. Number of ice chests/packages received: 1
Note as OTC if received over the counter unpackaged.
2. Were samples received in a chilled condition? Temps: RT / / / /
Acceptable is above freezing to 6° C. Also acceptable is received on ice (ROI) for the same day of sampling or received at room temperature (RRT) if sampled within one hour of receipt. Client contact for temperature failures must be documented below. If many packages are received at one time check for tests/H.T.'s/rushes/Bacti's to prioritize further review. Please notify Microbiology personnel immediately of bacti samples received.
3. Do the number of bottles received agree with the COC? Yes No N/A
4. Were samples received intact? (i.e. no broken bottles, leaks etc.) Yes No
5. Were sample custody seals intact? N/A Yes No

Sign and date the COC, obtain LIMS sample numbers, select methods/tests and print labels.

Sample Verification, Labeling and Distribution:

1. Were all requested analyses understood and acceptable? Yes No
2. Did bottle labels correspond with the client's ID's? Yes No
3. Were all bottles requiring sample preservation properly preserved? Yes No N/A FGL
4. Were all analyses within holding times at time of receipt? Yes No
5. Have rush or project due dates been checked and accepted? N/A Yes No

Attach labels to the containers and include a copy of the COC for lab delivery.

Sample Receipt. Login and Verification completed by (initials):

Discrepancy Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be resolved.

1. Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____

Resolution: _____

2. Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____

Resolution: _____

(2-14320)
Nipomo Community Services District
SP 0711362
SJJ-10/10/2007-14:45:02



ANALYTICAL CHEMISTS

November 12, 2007

Lab ID : SP 709968
Customer : 2014320

Nipomo CSD
Attn: Dan Migliazzo
P. O. Box 326
Nipomo, CA 93444

Laboratory Report

Introduction: This report package contains total of 5 pages divided into three sections:

- Case Narrative (2 Pages): An overview of the work performed at FGL.
Chemical Results (1 Page): Results for each sample submitted.
Quality Control (2 Pages): Supporting Quality Control (QC) results.

This report package pertains to the following sample:

Table with 5 columns: Sample Description, Date Sampled, Date Received, FGL Lab Sample ID #, Matrix. Row 1: Effluent, 09/07/2007, 09/07/2007, SP 709968-01, WW

Sampling and Receipt Information: The sample was received, prepared and analyzed within the method specified holding times. All samples were received on ice. All samples were checked for pH if acid or base preservation required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Forms.

Quality Control: All samples were prepared and analyzed according to the following tables:

Inorganic - Wet Chemistry QC

Table with 2 columns: Sample ID, Description. Rows include 300.0, 351.1, and 4500NH3H with their respective QC details.

Case narrative continued on next page...


November 12, 2007

Lab ID : SP 709968
Customer : 2014320

Nipomo CSD

Certification: I certify that this data package is in compliance with NELAC Standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following signature.

FGL ENVIRONMENTAL



Kelly A. Dunnahoo, B.S.
Laboratory Director

KAD:cea



ANALYTICAL CHEMISTS

November 12, 2007

Lab ID : SP 709968-01
Customer ID: 2-14320

Nipomo CSD
Attn: Dan Migliazzo
P. O. Box 326
Nipomo, CA 93444

Sampled On : September 7, 2007-10:00
Sampled By : Rick Motley
Received On: September 7, 2007-15:30
Matrix : Waste Water

Description : Effluent
Project : Southland WWTP 97-75

Sample Results - Inorganic

Table with 7 columns: Constituent, Results, PQL, Units, Note, Sample Preparation Method/Date/ID, Sample Analysis Method/Date/ID. Rows include Field Test (pH, Temperature), Special Inorg. (Un-ionized Ammonia-N), and Wet Chemistry (Ammonia-N, Nitrate, Nitrite, Nitrogen Total, Nitrate + Nitrite as N, Kjeldahl Nitrogen).

ND=Non-Detect. PQL=Practical Quantitation Limit. ♦ PQL adjusted for dilutions, concentrations, dry weight reporting, or limited sample.
Containers: (P) Plastic Preservatives: (1) Cool 4°C, (4) H2SO4 pH < 2



ANALYTICAL CHEMISTS
 November 12, 2007
 Nipomo CSD

Lab ID : SP 709968
 Customer : 2-14320

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note	
Un-ionized Ammonia-N	4500NH3H	09/18/2007:B	00-ICB	mg/l		ND	< 0.2		
			00-CCB	mg/l		ND	< 0.2		
			00-ICV	mg/l	2.000	97.8%	90-110		
			00-CCV	mg/l	2.000	98.6%	90-110		
Wet Chem Kjeldahl Nitrogen	351.1	09/21/2007:A242 (SP 709846-01)	Blank	mg/L		ND	< 0.5		
			LCS	mg/L	2.000	101%	69-125		
			MS	mg/L	2.000	42.6%	25-149		
			MSD	mg/L	2.000	130%	25-149		
			MSRPD	mg/L		1.7	≤ 0.5		
Ammonia Nitrogen	4500NH3G	09/25/2007:A	00-ICB	mg/l		ND	< 0.2		
			00-CCB	mg/l		ND	< 0.2		
			00-ICV	mg/l	2.000	93.7%	90-110		
			00-CCV	mg/l	2.000	101%	90-110		
Nitrate	300.0	09/07/2007:C215 (STK738299-01)	LCS	mg/L	20.00	98.8%	90-110		
			MS	mg/L	400.0	105%	88-124		
			MSD	mg/L	400.0	104%	88-124		
			MSRPD	mg/L		0.4%	≤ 29.1		
Ammonia-N	4500NH3H	09/12/2007:A203 (SP 709788-01)	Blank	mg/L		ND	< 0.2		
			LCS	mg/L	2.000	98.0%	63-116		
			MS	mg/L	2.000	87.0%	17-127		
			MSD	mg/L	2.000	76.2%	17-127		
			MSRPD	mg/L		12.9%	≤ 80.2		
Nitrate	300.0	09/07/2007:C215 (STK738299-01)	LCS	mg/L	20.00	98.8%	90-110		
			MS	mg/L	400.0	105%	88-124		
			MSD	mg/L	400.0	104%	88-124		
			MSRPD	mg/L		0.4%	≤ 29.1		
	300.0	09/07/2007:A	00-ICB	ppm		ND	< 0.4		
			00-CCB	ppm		ND	< 0.4		
			00-ICV	ppm	40.00	99.7%	90-110		
			00-CCV	ppm	20.00	97.2%	90-110		
	Nitrite	300.0	09/07/2007:C215 (STK738299-01)	LCS	mg/L	15.00	98.9%	90-110	
				MS	mg/L	300.0	106%	91-121	
MSD				mg/L	300.0	105%	91-121		
MSRPD				mg/L		0.4%	≤ 23.8		
300.0		09/07/2007:A	00-ICB	ppm		ND	< 0.3		
			00-CCB	ppm		ND	< 0.3		
		00-ICV	ppm	30.00	99.9%	90-110			
		00-CCV	ppm	15.00	97.3%	90-110			

Definitions

Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
 LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.
 MS/MSD : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
 ICB : Initial Calibration Blank - Analyzed to verify the instrument baseline is within criteria.

Definitions are continued on next page...

November 12, 2007
Nipomo CSD

Lab ID : SP 709968
Customer : 2-14320

Quality Control - Inorganic

Definitions

ICV : Initial Calibration Verification - Analyzed to verify the instrument calibration is within criteria.
CCB : Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.
CCV : Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.
ND : Non-detect - Result was below the DQO listed for the analyte.
DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.



ENVIRONMENTAL

www.igimc.com

Weekly

CHAIN OF CUSTODY
Laboratory Copy (1 of 3)



2102:08/06/2007

TEST DESCRIPTION - See Reverse side for Container, Preservative and Sampling Information

M/060

Client: Nipomo Community Services District
Address: Nipomo GSD
Attn: Dan Migliazzo
P. O. Box 326
Nipomo, CA 93444

Phone: (805)929-1341 Fax: (805)929-5090

Contact Person: Dan Migliazzo

Project Name: Southland WWTP 97-75

Purchase Order Number:

Quote Number:

Sampler(s) Rick Moran

Sampling Fee: Pickup Fee:

Compositor Setup Date: 9/6/07 Time: 9:10

Lab Number: SP 709965 2-14320

Sampl Num	Location Description	Date Sampled	Time Sampled
1	Effluent	9/10/07	10:00

Method of Sampling:	Composite(C)	Grab(G)
Type of Sample	**SEE REVERSE SIDE**	
Potable(P)	Non-Potable(NP)	Ag Water(AgW)
Bacti Type:	Other(O) System(SYS) Source(SR) Waste(W)	
Bacti Reason:	Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL)	
Field Test-Field pH	!!pH = 15 MINUTE HOLD TIME!!	
Field - pH Date	7/9	9/17
Field - pH Time	10:30	
Special Inorg. - Un-ionized Ammonia	1	1
Requires Field pH & Temperature to Calculate 16oz(P)-H2SO4		
Wet Chemistry-Total N,NO2,NO3,NH3-N 16oz(P)		
Field Test-Field Temp.	10.5	

Relinquished	Date:	Time:	Relinquished	Date:	Time:	Relinquished	Date:	Time:	Relinquished	Date:	Time:
Received By: <i>[Signature]</i>	9/10/07	10:30	Received By: <i>[Signature]</i>	9/10/07		Received By: <i>[Signature]</i>	9/10/07		Received By: <i>[Signature]</i>		

Corporate Offices & Laboratory
P.O. Box 272 853 Corporation Street
Santa Paula, CA 93061-0272
TEL: (805) 392-2000
FAX: (805) 392-1779

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209) 942-0182
FAX: (209) 942-0182

Office & Laboratory
563 East Lindo Avenue
Chico, CA 95926
TEL: (530) 343-5818
FAX: (530) 343-5818

Field Office
Vista, California
TEL: (559) 734-9143
Mobile: (559) 737-4249
FAX: (559) 734-9143

Santa Paula - Condition Upon Receipt (Attach to COC)

Sample Receipt:

- Number of ice chests/packages received: 1
Note as OTC if received over the counter unpackaged.
- Were samples received in a chilled condition? Temps ROI / / / /
Acceptable is above freezing to 6° C. Also acceptable is received on ice (ROI) for the same day of sampling or received at room temperature (RRT) if sampled within one hour of receipt. Client contact for temperature failures must be documented below. If many packages are received at one time check for tests/H.T.'s/rushes/Bacti's to prioritize further review. Please notify Microbiology personnel immediately of bacti samples received.
- Do the number of bottles received agree with the COC? Yes No N/A
- Were samples received intact? (i.e. no broken bottles, leaks etc.) Yes No
- Were sample custody seals intact? N/A Yes No

Sign and date the COC, obtain LIMS sample numbers, select methods/tests and print labels.

Sample Verification, Labeling and Distribution:

- Were all requested analyses understood and acceptable? Yes No
- Did bottle labels correspond with the client's ID's? Yes No
- Were all bottles requiring sample preservation properly preserved? Yes No N/A FGL
- Were all analyses within holding times at time of receipt? Yes No
- Have rush or project due dates been checked and accepted? N/A Yes No

Attach labels to the containers and include a copy of the COC for lab delivery.

Sample Receipt, Login and Verification completed by (initials):



Discrepancy Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be resolved.

- Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____

Resolution:

- Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____

Resolution:

(2-14320)
Nipomo Community Services District
SP 0709968

IV-09/07/2007-15:32:17



ANALYTICAL CHEMISTS

November 12, 2007

Lab ID : SP 710760
Customer : 2014320

Nipomo CSD
Attn: Dan Migliazzo
P. O. Box 326
Nipomo, CA 93444

Laboratory Report

Introduction: This report package contains total of 5 pages divided into three sections:

- Case Narrative (2 Pages): An overview of the work performed at FGL.
Chemical Results (1 Page): Results for each sample submitted.
Quality Control (2 Pages): Supporting Quality Control (QC) results.

This report package pertains to the following sample:

Table with 5 columns: Sample Description, Date Sampled, Date Received, FGL Lab Sample ID #, Matrix. Row 1: Effluent, 09/26/2007, 09/26/2007, SP 710760-01, WW

Sampling and Receipt Information: The sample was received, prepared and analyzed within the method specified holding times. All samples were received on ice. All samples were checked for pH if acid or base preservation required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Forms.

Quality Control: All samples were prepared and analyzed according to the following tables:

Inorganic - Wet Chemistry QC

Table with 2 columns: Sample ID, Description. Rows include quality control details for samples 351.1, 4500NH3H, 4500NO2B, and 4500NO3F.

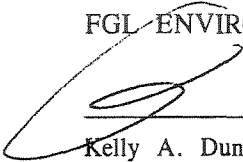
November 12, 2007

Lab ID : SP 710760
Customer : 2014320

Nipomo CSD

Certification: I certify that this data package is in compliance with NELAC Standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following signature.

FGL ENVIRONMENTAL



Kelly A. Dunnahoo, B.S.
Laboratory Director

KAD:cea



ANALYTICAL CHEMISTS

November 12, 2007

Lab ID : SP 710760-01
Customer ID: 2-14320

Nipomo CSD
Attn: Dan Migliazzo
P. O. Box 326
Nipomo, CA 93444

Sampled On : September 26, 2007-09:20
Sampled By : Rick Motley
Received On : September 26, 2007-00:00
Matrix : Waste Water

Description : Effluent
Project : Southland WWTP 97-75

Sample Results - Inorganic

Constituent	Results	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Field Test								
pH	9.40	-	units			09/26/07:FS00		09/26/2007:
Temperature	10.05		oC			09/26/07:FS00		09/26/2007:
Special Inorg. P:1,4								
Un-ionized Ammonia-N	0.38	0.04*	mg/L		4500NH3H	09/28/07:A203	4500NH3G	10/04/2007:C00
Wet Chemistry P:1								
Ammonia-N	21	2*	mg/L		4500NH3H	09/28/07:A203	4500NH3G	10/04/2007:C00
Nitrate	1.0	0.4	mg/L		4500NO3F	10/01/07:A220	4500NO3F	10/01/2007:C00
						14:02		15:45
Nitrite	0.4	0.3	mg/L		4500NO2B	09/26/07:C251	4500NO2B	09/26/2007:C00
						17:00		17:40
Nitrogen, Total	28	5*	mg/L		Calculation		Calculation	
Nitrate + Nitrite as N	0.2	0.1	mg/L		4500NO3F	10/01/07:A220	4500NO3F	10/01/2007:C00
						14:02		15:45
Kjeldahl Nitrogen	28	5*	mg/L		351.1	10/16/07:A242	4500NH3G	10/18/2007:A00

ND=Non-Detect. PQL=Practical Quantitation Limit. ♦ PQL adjusted for dilutions, concentrations, dry weight reporting, or limited sample.
Containers: (P) Plastic Preservatives: (1) Cool 4°C, (4) H2SO4 pH < 2



ANALYTICAL CHEMISTS
 November 12, 2007
 Nipomo CSD

Lab ID : SP 710760
 Customer : 2-14320

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Un-ionized Ammonia-N	4500NH3H	09/28/2007:A203 (CH 775627-01)	Blank	mg/L		ND	<0.2	
			LCS	mg/L	2.000	75.0%	63-116	
			MS	mg/L	2.000	74.6%	17-127	
			MSD	mg/L	2.000	77.2%	17-127	
			MSRPD	mg/L		3.3%	≤80.2	
	4500NH3G	10/04/2007:C	00-ICB	mg/l		ND	<0.2	
			00-CCB	mg/l		ND	<0.2	
			00-ICV	mg/l	2.000	101%	90-110	
			00-CCV	mg/l	2.000	108%	90-110	
Wet Chem Kjeldahl Nitrogen	351.1	10/16/2007:A242	Blank	mg/L		ND	<0.5	
			LCS	mg/L	2.000	83.0%	69-125	
Ammonia Nitrogen	4500NH3G	10/18/2007:A	00-ICB	mg/l		ND	<0.2	
			00-CCB	mg/l		ND	<0.2	
			00-ICV	mg/l	2.000	100%	90-110	
			00-CCV	mg/l	2.000	101%	90-110	
Nitrate + Nitrite as N	4500NO3F	10/01/2007:A220 (CH 775653-01)	MS	mg/L	4.000	66.3%	5-285	
			MSD	mg/L	4.000	114%	5-285	
			MSRPD	mg/L		15.5%	≤30.4	
Ammonia-N	4500NH3H	09/28/2007:A203 (CH 775627-01)	Blank	mg/L		ND	<0.2	
			LCS	mg/L	2.000	75.0%	63-116	
			MS	mg/L	2.000	74.6%	17-127	
			MSD	mg/L	2.000	77.2%	17-127	
			MSRPD	mg/L		3.3%	≤80.2	
Nitrate + Nitrite as N	4500NO3F	10/01/2007:A220 (CH 775653-01)	MS	mg/L	4.000	66.3%	5-285	
			MSD	mg/L	4.000	114%	5-285	
			MSRPD	mg/L		15.5%	≤30.4	
	4500NO3F	10/01/2007:C	00-ICB	mg/l		ND	<0.1	
			00-CCB	mg/l		ND	<0.1	
			00-ICV	mg/l	4.000	103%	90-110	
			00-CCV	mg/l	4.000	103%	90-110	
Nitrite as Nitrogen	4500NO2B	09/26/2007:C251 (SP 710783-01)	MS	mg/L	0.4568	26.5%	1-173	
			MSD	mg/L	0.4568	26.2%	1-173	
			MSRPD	mg/L		0.0014	≤0.1	
	4500NO2B	09/26/2007:C	00-CCB	mg/L		ND	<0.1	
			00-CCV	mg/L	0.1522	96.6%	90-110	

Explanations

220 The absolute value of the CCB was greater than the DQO. However, all results were either five times greater than the CCB concentration or ND relative to the PQL.

Definitions

- Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
- LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.
- MS/MSD : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of

Definitions are continued on next page...

November 12, 2007
Nipomo CSD

Lab ID : SP 710760
Customer : 2-14320

Quality Control - Inorganic

Definitions

- how that sample matrix affects analyte recovery.
- ICB : Initial Calibration Blank - Analyzed to verify the instrument baseline is within criteria.
- ICV : Initial Calibration Verification - Analyzed to verify the instrument calibration is within criteria.
- CCB : Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.
- CCV : Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.
- ND : Non-detect - Result was below the DQO listed for the analyte.
- DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.



ENVIRONMENTAL

Weekly

http://www.eco.com

CHAIN OF CUSTODY

Laboratory Copy (1 of 3)

Client: Nipomo Community Services District
Address: Nipomo CSD
Attn: Dan Migliazzo
P. O. Box 326
Nipomo, CA 93444
Phone: (805)929-1341 Fax: (805)929-5090
Contact Person: Dan Migliazzo
Project Name: Southland WWTP 97-75
Purchase Order Number:
Quote Number:
Sampler(s) Rice water
Sampling Fee: Pickup Fee:
Compositor Setup Date: 9/25/07 Time: 3:45
Lab Number: SP 710 HCO 2-14320
Samp Num Location Description Date Sampled Time Sampled
1 Effluent 9/26/07 9:20
Method of Sampling: Composite(C) Grab(G)
Type of Sample **SEE REVERSE SIDE**
Potable(P) Non-Potable(NP) Ag Water(AgW)
Bacti Type: Other(O) System(SYS) Source(SR) Waste(W)
Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL)
Other(O) Special(SPL)
Field Test-Field pH !!pH = 15 MINUTE HOLD TIME!!
Field - pH Date 9/26 9:26
Field - pH Time 7.9
Special Inorg. - Un-ionized Ammonia
Requires Field pH & Temperature to Calculate 16oz(P)-H2SO4
Wet Chemistry-Total N,NO2,NO3,NH3-N 16oz(P)
Field Test-Field Temp. 10.05

Relinquished	Date:	Time:	Relinquished	Date:	Time:	Relinquished	Date:	Time:	Relinquished	Date:	Time:
Received By: <i>[Signature]</i>	Date: 9/26/07	Time: 11:50	Received By: <i>[Signature]</i>	Date: 9/26	Time: 10:00	Received By:	Date:	Time:	Received By:	Date:	Time:

Corporate Offices & Laboratory
P.O. Box 272, 853 Corporation Street
Santa Paula, CA 93061-0272
TEL: (805) 392-2000

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209) 942-0182

Office & Laboratory
563 East Lindo Avenue
Chico, CA 95926
TEL: (530) 343-8818

Field Office
Visalia, California
TEL: (559) 734-4425
Mobile: (559) 737-2369
FAX: (559) 731-9138

Santa Paula - Condition Upon Receipt (Attach to COC)

Sample Receipt:

1. Number of ice chests/packages received: 1
Note as OTC if received over the counter unpackaged.
2. Were samples received in a chilled condition? Temps: 22 / / / /
Acceptable is above freezing to 6° C. Also acceptable is received on ice (ROI) for the same day of sampling or received at room temperature (RRT) if sampled within one hour of receipt. Client contact for temperature failures must be documented below. If many packages are received at one time check for tests/H.T.'s/rushes/Bacti's to prioritize further review. Please notify Microbiology personnel immediately of bacti samples received.
3. Do the number of bottles received agree with the COC? Yes No N/A
4. Were samples received intact? (i.e. no broken bottles, leaks etc.) Yes No
5. Were sample custody seals intact? N/A Yes No

Sign and date the COC, obtain LIMS sample numbers, select methods/tests and print labels.

Sample Verification, Labeling and Distribution:

1. Were all requested analyses understood and acceptable? Yes No
2. Did bottle labels correspond with the client's ID's? Yes No
3. Were all bottles requiring sample preservation properly preserved? Yes No N/A FGL
4. Were all analyses within holding times at time of receipt? Yes No
5. Have rush or project due dates been checked and accepted? N/A Yes No

Attach labels to the containers and include a copy of the COC for lab delivery.

Sample Receipt, Login and Verification completed by (initials):

Discrepancy Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be resolved.

1. Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____

Resolution: _____

2. Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____

Resolution: _____

(2-14320)
Nipomo Community Services District
SP 0710760

SJJ-09/26/2007-15:22:25

ATTACHMENT 2
WATER RESOURCES INVESTIGATION REPORT 03-4279
(SELECTED EXCERPTS)

Use of Water-Quality Indicators and Environmental Tracers to Determine the Fate and Transport of Recycled Water in Los Angeles County, California

By Robert Anders and Roy A. Schroeder

U.S. GEOLOGICAL SURVEY

Water-Resources Investigations Report 03-4279

Prepared in cooperation with the
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA

5005-12

Sacramento, California
2003

CONTENTS

Abstract	1
Introduction	2
Artificial Recharge Using Wastewater.....	2
Previous Studies	2
Purpose and Scope	3
Description of the Study Area.....	4
Acknowledgments.....	4
Field and Analytical Methods	8
Production Wells Adjacent to Spreading Grounds	8
Downgradient Monitoring Wells	11
Water-Quality Indicators and Environmental Tracers	16
Production-Well Results	16
Statistical Relations.....	16
Nonparametric Test.....	16
Graphical Representation.....	29
Two-Member Mixing Models for Selected Constituents	30
“Excess” Chloride and Boron	31
Boron Isotopes	33
Nitrogen Isotopes	33
Organic Constituents.....	36
Tritium and Well-Water Ages.....	36
Multiple-Well Monitoring-Site Results	41
Tritium/Helium-3 Age Determinations.....	51
Tracers of Recycled Water.....	54
Chloride and Boron.....	54
Nitrogen	58
Dissolved Gases	62
Chlorofluorocarbons	68
Summary and Conclusions.....	74
References Cited	75
Appendixes.....	79
A: Relation between percent recycled water and 22 selected wastewater constituents for each of the 23 production wells located in Los Angeles County, California	80
B: Relation between percent recycled water in each of the 23 production wells located in Los Angeles County, California, for 22 selected constituents	92

Use of Water-Quality Indicators and Environmental Tracers to Determine the Fate and Transport of Recycled Water in Los Angeles County, California

By Robert Anders and Roy A. Schroeder

ABSTRACT

Tertiary-treated municipal wastewater (recycled water) has been used to replenish the Central Basin in Los Angeles County for over 40 years. Therefore, this area provides an excellent location to investigate (1) the fate and transport of wastewater constituents as they travel from the point of recharge to points of withdrawal, and (2) the long-term effects that artificial recharge using recycled water has on the quality of the ground-water basin. The U.S. Geological Survey has been conducting such investigations in this area for about 10 years, beginning in 1992. For this investigation, a variety of inorganic, organic, and isotopic constituents were analyzed in samples from 23 production wells within 500 feet of the San Gabriel and Rio Hondo Coastal Basin Spreading Grounds, and tritium/helium-3, chlorofluorocarbons, dissolved gases, and nitrogen isotopes were analyzed in five multiple-well monitoring sites along a 10-mile flow path extending from just upgradient of the spreading grounds southward through the Central Basin.

Spearman rank-order correlation coefficients and level of significance calculated for about 40 water-quality indicators and several physical features show significant correlations between numerous inorganic and organic constituents that indicate the presence of recycled water. On the basis of a simple two-member mixing model, chloride, boron, ultraviolet absorbance at 254 nanometers, and excitation-

emission fluorescence yielded the most reasonable estimates of wastewater percentages in the production wells. Tritium/helium-3 age determinations indicated that samples of ground water tested range in age from less than 2 to more than 50 years. Chloride and boron concentrations, along with tritium/helium-3 age determinations, indicate more rapid recharge and (or) displacement of pre-existing ground water at the San Gabriel Coastal Basin Spreading Grounds than at the Rio Hondo Coastal Basin Spreading Grounds. Nitrogen-15 enrichment of the ground-water nitrate and dissolved nitrogen indicates that denitrification, an important process for the removal of nitrate at the shallower depths beneath the spreading grounds, continues to occur at distances of several miles from the spreading grounds and over a period of many years. Analysis of dissolved gases shows that areas that contain recycled water have no detectable methane, whereas methane is present in the native ground water older than 50 years. The absence of methane in the younger ground water suggests that artificial recharge using recycled water has the desirable effect of increasing slightly the redox potential of the ground-water basin. Finally, measured chlorofluorocarbon concentrations and tritium/helium-3 age determinations indicate that chlorofluorocarbon concentrations are markedly elevated above atmosphere-water equilibrium in ground water older than about 20 years but still young enough to contain recycled water.

Results of the nonparametric test are summarized in [table 3](#). Correlation coefficients (multiplied by 100 to convert decimal values to whole numbers) are listed for each pair of constituents above the diagonal that divides the table. Level of significance (α) is designated below the diagonal by three stars ($\alpha < 0.001$; strongly significant), two stars ($\alpha = 0.001$ to 0.05 ; highly significant), and one star ($\alpha = 0.05$ to 0.10 ; moderately significant); and referred to as strong, moderate, and weak in subsequent discussions. The three levels of significance are related to the correlation coefficients by the following: $\alpha < 0.001$, $\rho > 0.65$; $\alpha = 0.001$ to 0.05 , $\rho = 0.65$ to 0.40 ; and $\alpha = 0.05$ to 0.10 , $\rho = 0.40$ to 0.35 . The 45 constituents are listed in order as groups that consist of inorganic species, trace elements, isotopes, "calculated" values, microbes, organic indicators, and physical features.

High numbers of significant correlations are readily apparent within certain groups; for example, several inorganic species and organic indicators. Correlations for more than half of the inorganic pairs and half of the organic pairs are strongly significant ($\alpha < 0.001$). The high number for inorganic species is at least partly an autocorrelation of all major ions with dissolved-solids concentration (TDS) and specific conductance (SC). As expected, correlations are weaker, but still significant, for inorganic species that are less conservative, such as calcium (Ca), magnesium (Mg), alkalinity (ALK), and sulfate (SO₄).

The high number of significant correlations for organic pairs is explained by the fact that the organic compounds and broad organic indicators have a common source in the recycled water. In fact, only trihalomethanes (THMs) are uncharacteristic in that they exhibit few significant correlations (2 out of 10 pairs) within the organic group. This could mean that there are THM sources other than chlorinated recycled water, or that THM biodegradation and (or) sorption differs greatly from that of the other constituents tested.

When the two groups are considered together, about half the inorganic-organic pairs exhibit statistically significant correlation; but the number is much higher for sodium and chloride. This reflects the addition of salt to wastewater during the treatment process (Nightingale and McCormick, 1985; Umari and others, 1995). In fact, the correlation coefficients between chloride and organic pairs are increased further when bromide is used to remove natural chloride and yield "excess" chloride (exCl), as discussed in the section "Two-Member Mixing Models for Selected Constituents." Note that the absence of any significant correlations between bromide (Br) and organic constituents supports the method used to calculate "excess" chloride. Two other inorganic constituents, "excess" boron (exB) and "back-calculated" nitrogen (calN) assumed to be nitrate, also exhibit high numbers of significant correlations with organic pairs and, therefore, are also discussed in detail in the same section.

Three trace elements—iron (Fe), manganese (Mn), and zinc (Zn)—were analyzed in the production wells. Concentrations of these trace elements in recycled water (effluent) are 43, 17, and 160 $\mu\text{g/L}$, respectively (see [table 2](#)). Although zinc is abundant in wastewater, experiments at the constructed research site indicate that it is reduced by about two-thirds over a distance of less than 25 ft during recharge (Schroeder and others, 2003). Hence, it is not surprising that zinc in the production wells shows no significant correlations with any other constituents that are indicators of recycled water. Elevated iron and manganese concentrations are present in some of the wells, but they are unlikely to have their origin in recycled water. Rather they likely are both mobilized or removed from aquifer soils in response to local environmental conditions. Fe and Mn are moderately correlated ([table 3](#)), reflecting their similar behavior under reducing (soluble) and oxidizing (insoluble) conditions.

"Excess" Chloride and Boron

Two constituents added to water during the treatment process, Cl and B, were evaluated as tracers or recycled water in the subsurface. If unfractionated sea salt in atmospheric precipitation is the sole source of chloride (Cl) and bromide (Br), and both halides exhibit completely conservative physical and chemical behavior during subsurface transport, the Cl/Br mass ratio in ground water would be equal to 287, the ratio found in seawater (Schroeder and others, 1993). Cl is indeed enriched relative to Br in the production wells, and in the recycled water itself (Schroeder and others, 1997). Deviation from a seawater-dilution line can be used to estimate recycled-water percentages, designated "excess" chloride, if it is assumed that the process of water reuse adds only Cl but no Br, using the following equation:

$$[Cl] = (120 - x)287[Br] \quad (1)$$

where

- [Cl] = chloride concentration measured in production well [mg/L];
- 120 = chloride concentration measured in recycled water [mg/L];
- 287[Br] = chloride concentration in production well without recycled water [mg/L]; and
- x = calculated percentage of recycled water [%].

Similarly, boron (B) is added to the recycled water in large amounts during water reuse, primarily owing to its presence as a softener in detergents. It is used in a two-member mixing model to calculate recycled water percentages, designated "excess" boron, with the effluent concentration of 399 µg/L being one end member. The two-member mixing model assumes that the lowest concentration measured in any of the 23 production wells (93 µg/L in well 23) represents conditions in which there is no contribution from recycled water. The percentage of recycled water can be estimated using the following equation:

$$[B] = x(399) + (1 - x)[B_{Native}] \quad (2)$$

where

- [B] = boron concentration measured in production well [µg/L];
- 399 = boron concentration measured in recycled water [µg/L];
- [B_{Native}] = boron concentration in production well without recycled water [µg/L]; and
- x = calculated percentage of recycled water [%].

Linear regression analysis was performed on the recycled-water percentages using the software program S-Plus (Mathsoft, Inc., Cambridge, Mass.) and the robust MM regression method. Regression models such as the robust MM regression method are useful for fitting linear relations when the random variation in the data is not Gaussian (normal) or when the data contain significant outliers. Furthermore, the results of the robust MM linear regression method returns a model that is almost identical in structure to a standard linear regression model allowing for the production of regression plots. On the basis of the results of the analysis, "excess" Cl and "excess" B are correlated with a coefficient of determination, r^2 , of 0.58 (fig. 7). The fact that "excess" chloride and "excess" boron are correlated supports the hypothesis that both constituents are at least semiquantitative indicators of the percentage of recycled water in the production wells, although the underlying assumptions are only approximately correct since the regression line neither passes through the origin nor has a slope of 1. Furthermore, the calculated percentages are higher than the average amount of about 30 percent that would be expected on the basis of quantity and sources of water delivered to the spreading grounds for recharge during the last 10 years. It is anticipated that these recycled-water percentages can be improved with more reliable information on background concentrations of ground water prior to recharge, spatial variations within the Montebello Forebay, and the contribution of ground water from the San Gabriel Valley.

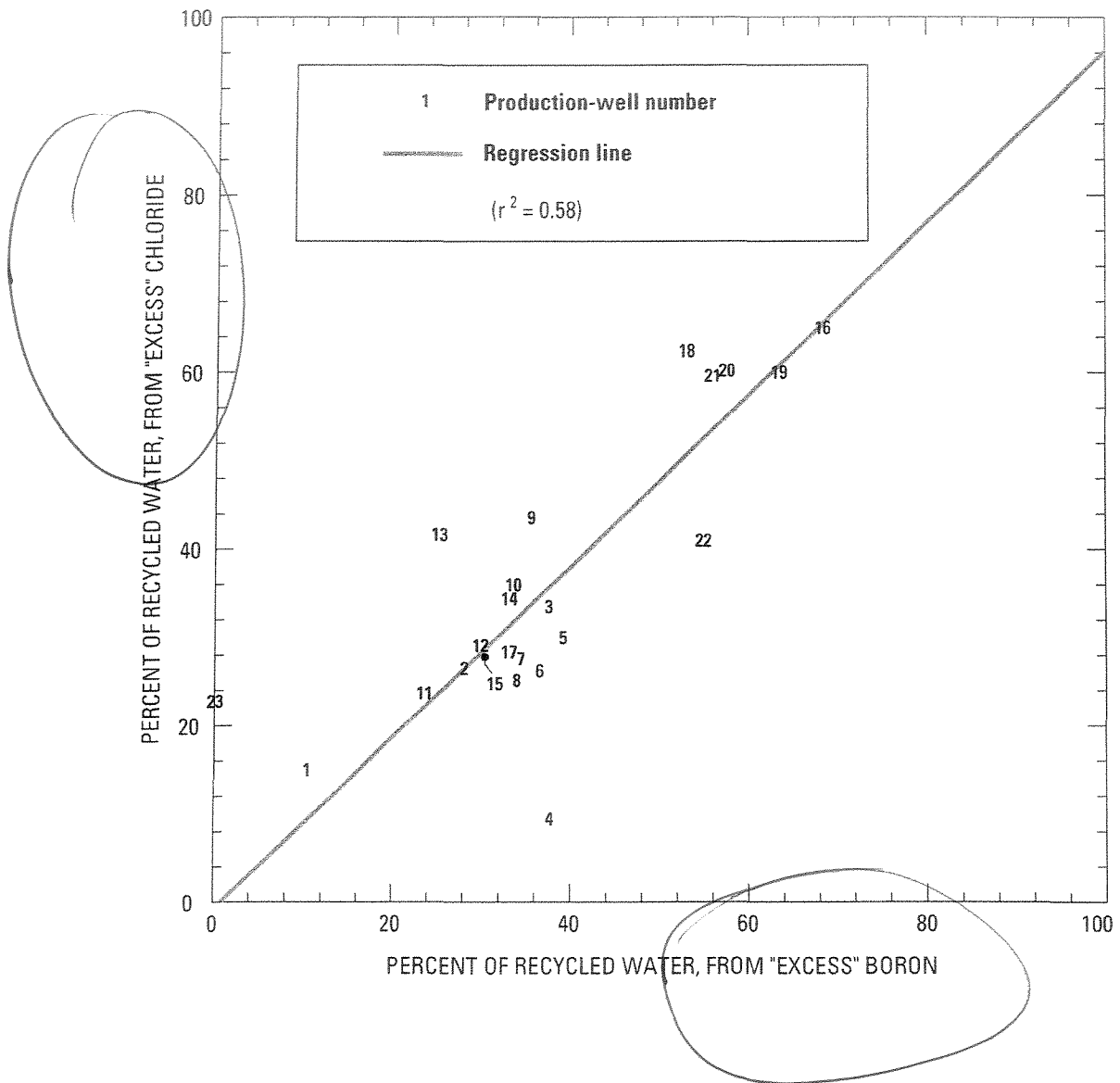


Figure 7. Estimates of recycled-water percentages in selected production wells based on "excess" chloride and "excess" boron values, Los Angeles County, California.

Boron Isotopes

Isotopic analyses of B may provide another method for quantifying recycled-water percentages (Vengosh and others, 1994). A delta boron-11 ($\delta^{11}\text{B}$) value of +6 per mil (‰) for an effluent sample and values of about +13 ‰ measured in a few of the production wells indicate that boron is isotopically depleted in recycled water (Schroeder and others, 1997). Furthermore, regression analysis indicates a negative correlation between "excess" Cl and $\delta^{11}\text{B}$ (fig. 8) and supports the use of boron as an indicator of recycled water, although the correlation between $\delta^{11}\text{B}$ and "excess" Cl ($r^2 = 0.14$) is considerably weaker than the correlation between "excess" Cl and "excess" B.

Nitrogen Isotopes

Nitrogen-isotopes measured during artificial recharge experiments at the San Gabriel Coastal Basin Spreading Grounds provided evidence that denitrification occurs beneath the reservoir site (Anders and Schroeder, 1997). The process of denitrification is accompanied by enrichment in nitrogen-15 in the remaining nitrate. Analyses of the effluent sample (table 2) yielded a delta nitrogen-15 ($\delta^{15}\text{N}$) value of +11.5 ‰ for nitrate and concentrations of 6.4 and 4.5 mg/L as N for oxidized ($\text{NO}_3 + \text{NO}_2$) and reduced ($\text{NH}_4 + \text{organic}$) species, respectively. A $\delta^{15}\text{N}$ value of +25.4 ‰ for ammonia was reported in Schroeder and others (1997). Combining the isotope and concentration data yields an initial nitrogen isotope ratio of +17.2 ‰ for total N. This value represents a maximum that would occur if all forms of N were completely converted to NO_3 and implies that any increment above this value for $\delta^{15}\text{N}\text{-NO}_3$ in the ground water would indicate denitrification. Because nearly all of the 23 production wells have $\delta^{15}\text{N}$ values that are higher than +17.2 ‰, and all have values that markedly exceed the $\delta^{15}\text{N}$ value for NO_3 in recycled water, most of the NO_3 in the production wells is concluded to be the result of partially denitrified recycled water (fig. 9).

On the basis of the assumption of complete oxidation of N in recycled water followed by partial denitrification and negligible dilution with native waters, this enrichment of $\delta^{15}\text{N}\text{-NO}_3$ can be expressed in terms of an isotope-separation (fractionation) factor, ϵ , by the Rayleigh fractionation equation:

$$\delta^{15}N_f = \delta^{15}N_i + \epsilon L n \frac{[\text{NO}_3]_f}{[\text{NO}_3]_i} \quad (3)$$

where

- $\delta^{15}N_f$ = final nitrogen isotope ratio measured in well at time of sampling [‰];
- $\delta^{15}N_i$ = initial (at time of recharge) nitrogen isotope ratio [‰];
- $[\text{NO}_3]_f$ = final nitrate concentration [mg/L]; and
- $[\text{NO}_3]_i$ = initial (at time of recharge) nitrate concentration [mg/L].

Previous calculations using the Rayleigh fractionation equation and isotope-ratio and nitrate-concentration data from before and after recharge experiments at the research site yielded an isotope-separation factor of about -22 ‰ (Anders and Schroeder, 1997) (fig. 9). Therefore, the amount of NO_3 removal by denitrification during recharge and (or) subsequent ground-water transport to a production well can be estimated from measured isotope ratios by assuming that the isotope-separation factor of -22 ‰ exists throughout the aquifer. Using the above assumptions yields N removals as high as 50 percent, with the highest N-removal percentage found in well 19M4 (production well number 16) in which $\delta^{15}\text{N} = +31.36$ ‰. Actual removal rates are likely to be slightly greater than calculated owing to lower $\delta^{15}\text{N}$ values commonly found in stormwater used for recharge, which are composed of N of natural and fertilizer origins that typically have $\delta^{15}\text{N}$ values much lower than those found in wastewater (Heaton, 1986, and Hübner, 1986). Furthermore, attempts were made to relate isotope ratios to plausible individual variables such as ground-water travel times or distance from the spreading grounds, depth of well, redox state as evidenced by oxygen and manganese concentrations, and even NO_3 concentration itself. However, these attempts failed to yield any obvious relation owing to the complex interplay of all variables listed, in addition to timing and composition of recharge and mixing of water from different depths (Schroeder and others, 1997).

The youngest $^3\text{H}/^3\text{He}$ age of 0.6 year was found in the water sample collected from a depth of 120 ft below land surface adjacent to the San Gabriel Coastal Basin Spreading Grounds (2S/12W-25G8). Other water samples collected from monitoring wells adjacent to the San Gabriel Coastal Basin Spreading Grounds at depths between 255 and 1,200 ft below land surface had $^3\text{H}/^3\text{He}$ ages ranging from 3.2 to 22.0 years. $^3\text{H}/^3\text{He}$ ages for water samples collected from monitoring wells located adjacent to the Rio Hondo Coastal Basin Spreading Grounds at depths between 160 and 930 ft below land surface ranged from 2.7 to 30.8 years. The $^3\text{H}/^3\text{He}$ age for water samples collected from the monitoring wells located in the city of Downey at depths between 270 and 960 ft below land surface ranged from 25.9 to 34.1 years. These $^3\text{H}/^3\text{He}$ ages indicate that recycled water is present to a depth of more than 900 ft below land surface adjacent to both spreading grounds and to a distance of more than 4 mi downgradient from both spreading grounds.

Linear regression analysis with the robust MM regression method (Mathsoft, Inc., Cambridge, Mass.) was performed using the $^3\text{H}/^3\text{He}$ ages and the depth of the monitoring wells located adjacent to the San Gabriel Coastal Basin (2S/12W-25G4 through 25G8) and Rio Hondo Coastal Basin Spreading Grounds (2S/12W-26D10 through 26D14). The resulting correlation was higher adjacent to the Rio Hondo Coastal Basin Spreading Grounds ($r^2 = 0.89$) than adjacent to the San Gabriel Coastal Basin Spreading Grounds ($r^2 = 0.56$) (fig. 16).

Although these correlations were calculated using a small number of data points and do not take into consideration asymmetric vertical flow that probably exists beneath the spreading grounds, they do provide some information about the recharge characteristics of the recycled water applied at the spreading grounds. The lower correlation for the monitoring wells adjacent to the San Gabriel Coastal Basin Spreading Grounds, along with similar $^3\text{H}/^3\text{He}$ ages of 22.1 and 20.9 years for water samples collected from 580 (2S/12W-25G5) and 850 (2S/12W-25G4) ft below land surface, respectively (fig. 15), probably is due to mixing and (or) complete displacement of recharged water with pre-existing ground water at these depths. The higher correlation for the monitoring wells

at the Rio Hondo Coastal Basin Spreading Grounds owing to the linear increase in age with depth suggests less displacement of pre-existing ground water than at the San Gabriel Coastal Basin Spreading Grounds.

Tracers of Recycled Water

Chloride and Boron

Chemical results from the production wells suggested that Cl and B would be most useful in locating the extent of the recycled water along the flow path, and this expectation is confirmed by data from the multiple-well monitoring sites (fig. 17). Values of "excess" Cl and "excess" B were determined for the monitoring wells following the same procedure used for estimating recycled-water percentages in the production wells (table 6). One end-member used to calculate the "excess" boron value was the average boron concentration from the monitoring well in Lakewood previously identified as containing no contribution from recycled water (62.5 mg/L in well 4S/12W-5H7). The "excess" Cl and "excess" B values of the monitoring wells show an r^2 of 0.42 (fig. 18). Similarly, the "excess" Cl and "excess" B values of the production wells show an r^2 of 0.58 (fig. 7).

The percentage of recycled water in three of the five monitoring wells (2S/12W-25G6–8) adjacent to the San Gabriel River Coastal Basin Spreading Grounds is similar to the highest values found in the production wells along the east side of the San Gabriel Coastal Basin Spreading Grounds (figs. 7 and 18). The high percentage of recycled water at the San Gabriel Coastal Basin Spreading Grounds exceeds the 35-percent limit DOHS sets on the allowable amount of recycled water that can be applied during any 3-year period, suggesting either greater use of this side for replenishment purposes during the dry months or higher natural levels of B and Cl on this side. Furthermore, those "excess" Cl and "excess" B values not showing a strong correlation either have a high concentration of bromide (4S/12W-5H10) or boron (3S/12W-9J6, 2S/11W-18C4, and 2S/11W-18C7) probably owing to surface anthropogenic effects such as oil-field brines and (or) local aquifer properties such as clay content or soil type.

**ATTACHMENT 3
CORRESPONDENCE**

From: Gardner, David [FWI]
Sent: Thursday, December 13, 2007 12:29 PM
To: Salazar, Valerie [FWI]
Subject: FW: Nipomo Data

Attachments: Effluent 17th Oct 07 FGLDocSP_0711739.pdf; Effluent 24th Oct 07 FGLDocSP_0712008.pdf; Effluent 7th Sept 07 FGLDocSP_0709968.pdf; Effluent 26th Sept 07 FGLDocSP_0710760.pdf; Effluent 10th Oct 07 FGLDocSP_0711362.pdf

From: Roberts, Shawn [FWI]
Sent: Monday, November 26, 2007 1:51 PM
To: Gardner, David [FWI]
Cc: Sorensen, Paul [FWI]; Roberts, Shawn [FWI]
Subject: Nipomo Data

David,
Well details are as follows:

Well/ Test Hole	Installation	Surface Elev. (feet)	Seal Depth (feet)	Screen Depth Interval (feet)	Depth to Top of First Clay Layer (feet)	Elevation of Top of First Clay Layer (feet)	Depth to Top of Main Aquitard (Blue Clay) (feet)	Elevation of Top of Main Aquitard (Blue Clay) (feet)	Date Measurement	Depth to Water (feet)	Elevation of Water (feet)
PZ	Jan 2000	300	40	42-52	51	249	-	-	July 2007	30.2	271
MW-1	Jan 2000	298	-	35-75	27	271	80	218	July 2007	37.9	262
MW-2	Jan 2000	300	-	40-85	-	-	85	215	July 2007	40.9	260
MW-3	Jan 2000	302	-	50-130	-	-	135	167	July 2007	44.2	260

All effluent data I have is attached. I note that only the sample from the 24th mentions composite collection. I will follow up with the lab/NCSD for more data.

The Shallow well field chemistry was as follows:

- pH 7.71, EC 348 (does not appear correct), Temp 17.3 – I did not bother with DO due to having used a bailer for collection
- The well ran dry and was sampled after 1 hour of recovery (It had not fully recovered)
- Well depth 30.4 feet
- Static 21.7 feet
- Well elevation – probably about 273 feet asl

Thanks

Shawn Roberts PhD PG
Project Hydrogeologist
Fugro West, Inc.
660 Clarion Court
San Luis Obispo, CA 93401
www.fugrowest.com
phone : (805) 542-0797, ext. 21
fax: (805) 542-9311
cell: (805) 732-0706

This e-mail and any files transmitted with it are confidential and intended solely for the use of the addressee. This e-mail shall not be deemed binding unless confirmed in writing. If you have received it by mistake, please let us know by e-mail reply and delete it from your system; you may not copy this message or disclose its contents to anyone. Please note that any views or opinions presented in this e-mail are solely those of the author and do not necessarily represent those of the company. E-mail transmission cannot be guaranteed to be secure or error-free. The sender therefore does not accept liability for any errors or omissions in the contents of this message, which arise as a result of e-mail transmission.