QUARTERLY MONITORING REPORT
January 2006 SAMPLING

City of Patterson Wastewater Treatment Plant
Groundwater Monitoring Program

Conducted in Accordance with
Waste Discharge Requirements Order No. 5-00-146

Prepared by:

LEE & RO, Inc.
11060 White Rock Road, Suite 100
Rancho Cordova, California 95670-6046

Prepared for:

City of Patterson
Department of Public Works
33 South Del Puerto Avenue
Patterson, CA 95363

March 2006

REPORT PREPARED BY:

3-2-06

Robert Owen Godwin
Registered Civil Engineer

(DATE)
California No. C48045

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1. INTRODUCTION

This Quarterly Groundwater Monitoring Report has been prepared in accordance with the Waste Discharge Requirements for the City of Patterson Wastewater Treatment Plant in the City of Patterson, Stanislaus County, California. The wells were installed as part of the groundwater monitoring program developed to determine if groundwater has been, or has the potential to be, adversely impacted by wastewater treatment and disposal operations. The monitoring program will include an assessment of background conditions and a determination if there has been any impact from wastewater disposal. The groundwater monitoring program consists of the construction and quarterly sampling of ten monitoring wells.

Monitoring wells MW-1 to MW-5 were constructed in March 2001 and have been sampled on a quarterly basis since April 2001. In conjunction with the 1.25 mgd wastewater treatment plant expansion, five new monitoring wells MW-6 to MW-10 were constructed between the months of July and August of 2004. These wells have been sampled on a quarterly basis since being constructed last summer.

This report presents the results of the quarterly samples collected on January 09, 2006. Included in this report will be groundwater elevation summaries and contour maps.

2. GROUNDWATER MONITORING WELLS

Figure 1 shows the monitoring well locations.

All ten wells have 15 feet of screen with total depths ranging from 28 to 31.5 feet below ground surface (bgs). A summary of well characteristics is provided in **Table 1**.

The location of monitoring well MW-9 was disputed by the neighbors. Therefore, as of May 10, 2005, MW-9 was removed in accordance with the Stanislaus County requirements. At this time, no new location has been proposed to replace MW-9.

3. GROUNDWATER ELEVATIONS

Groundwater elevations measured to date are summarized in **Figure 2**.

Groundwater elevations measured in this sampling round are presented in **Table 2** and contoured on the map presented in **Figure 3**. There appears to be a measurement error for the water depth in monitoring well MW-4 as shown on **Figure 3**.

4. MONITORING WELL SAMPLING

The wells were purged and sampled on January 09, 2006 in accordance with the procedures specified in the workplan. Sampling was conducted by Richard Chrun of GeoAnalytical Laboratories. Purge logs are presented in **Appendix A**.

5. GROUNDWATER QUALITY RESULTS

The samples were analyzed by GeoAnalytical Laboratories, a state-certified environmental laboratory. Analytical results for the quarterly samples are summarized in **Table 3**. Laboratory reports for the January 2006 samples are presented in **Appendix B**.

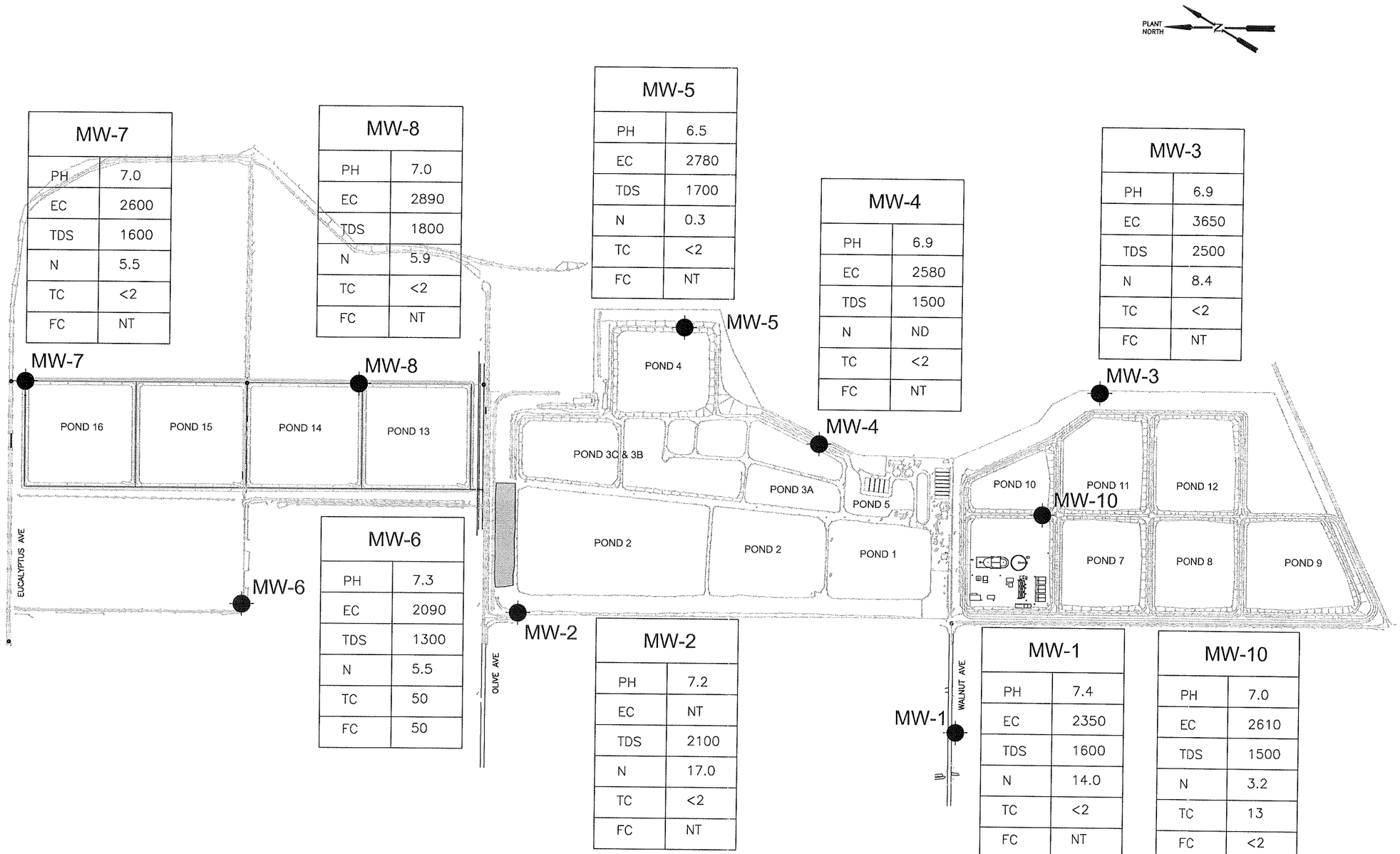
Table 1 Well Construction Summary					
	Well Depth (ft)	**Completion Type**	**Slab Surface Elevation**	**Top of Casing Elevation**	**Water Elevation 01/09/06 (ft msl)**
MW-1	27.5	Below	55.58	54.93	38.60
MW-2	29.0	Above	57.93	59.68	38.25
MW-3	28.0	Above	52.18	53.80	37.12
MW-4	30.0	Above	56.99	58.58	46.45
MW-5	29.0	Above	53.79	55.21	37.34
MW-6	30.0	Above	51.81	55.23	38.25
MW-7	31.5	Above	54.62	58.04	39.43
MW-8	29.5	Above	55.91	59.33	38.49
MW-10	30.0	Below	58.33	58.12	39.82

Table 2
Groundwater Elevations
Patterson WWTP Monitoring Wells

Water Elevations	**MW-1**	**MW-2**	**MW-3**	**MW-4**	**MW-5**	**MW-6**	**MW-7**	**MW-8**	**MW-9**	**MW-10**
Water Elevation 1/9/04 (ft msl)	35.97	35.55	N/A	30.97	36.29	N/A	N/A	N/A	N/A	N/A
Water Elevation 1/29/04 (ft msl)	N/A	N/A	35.30	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Water Elevation 4/8/04 (ft msl)	37.24	38.06	35.14	35.36	34.41	N/A	N/A	N/A	N/A	N/A
Water Elevation 7/8/04 (ft msl)	37.61	38.82	33.76	34.44	33.60	N/A	N/A	N/A	N/A	N/A
Water Elevation 10/18/04 (ft msl)	37.90	37.68	34.87	35.40	34.19	36.01	34.33	35.41	38.08	37.38
Water Elevation 1/17/05 (ft msl)	37.83	37.22	37.05	37.72	37.50	36.81	37.54	37.98	37.28	37.94
Water Elevations 4/05/05 (ft msl)	40.03	38.87	39.47	39.58	39.58	39.15	40.13	40.20	39.36	39.85
Water Elevations 7/11/05 (ft msl)	41.95	42.15	39.78	39.87	38.93	42.14	39.13	40.42	N/A	43.12
Water Elevations 10/10/05 (ft msl)	40.62	40.48	37.46	37.70	36.61	39.72	37.86	38.37	N/A	38.69
Water Elevations 01/09/06 (ft msl)	**38.60**	**38.25**	**37.12**	**46.45**	**37.34**	**38.25**	**39.43**	**38.49**	**N/A**	**39.82**

Table 3 January 2006 Analytical Results						
	PH	Electric Conductivity	Total Dissolved Solids	Nitrate as Nitrogen	Coliform Organisms	
	Method 150.1 (Std. Units)	Method 120.1 (umhos/cm)	Method 160.1 (mg/L)	Method 300.0 (mg/L)	Total Coliform Method 9221B,C (MPN/100ml)	Fecal Coliform Method 9221E,C (MPN/100ml)
MW-1	7.4	2350	1600	14.0	<2	NT
MW-2	7.2	NT	2100	17.0	<2	NT
MW-3	6.9	3650	2500	8.4	<2	NT
MW-4	6.9	2580	1500	ND	<2	NT
MW-5	6.5	2780	1700	0.3	<2	NT
MW-6	7.3	2090	1300	5.5	50.0	50
MW-7	7.0	2600	1600	5.5	<2	NT
MW-8	7.0	2890	1800	5.9	<2	NT
MW-10	7.0	2610	1500	3.2	13	<2

ND = Not Detected
NT = Not Tested



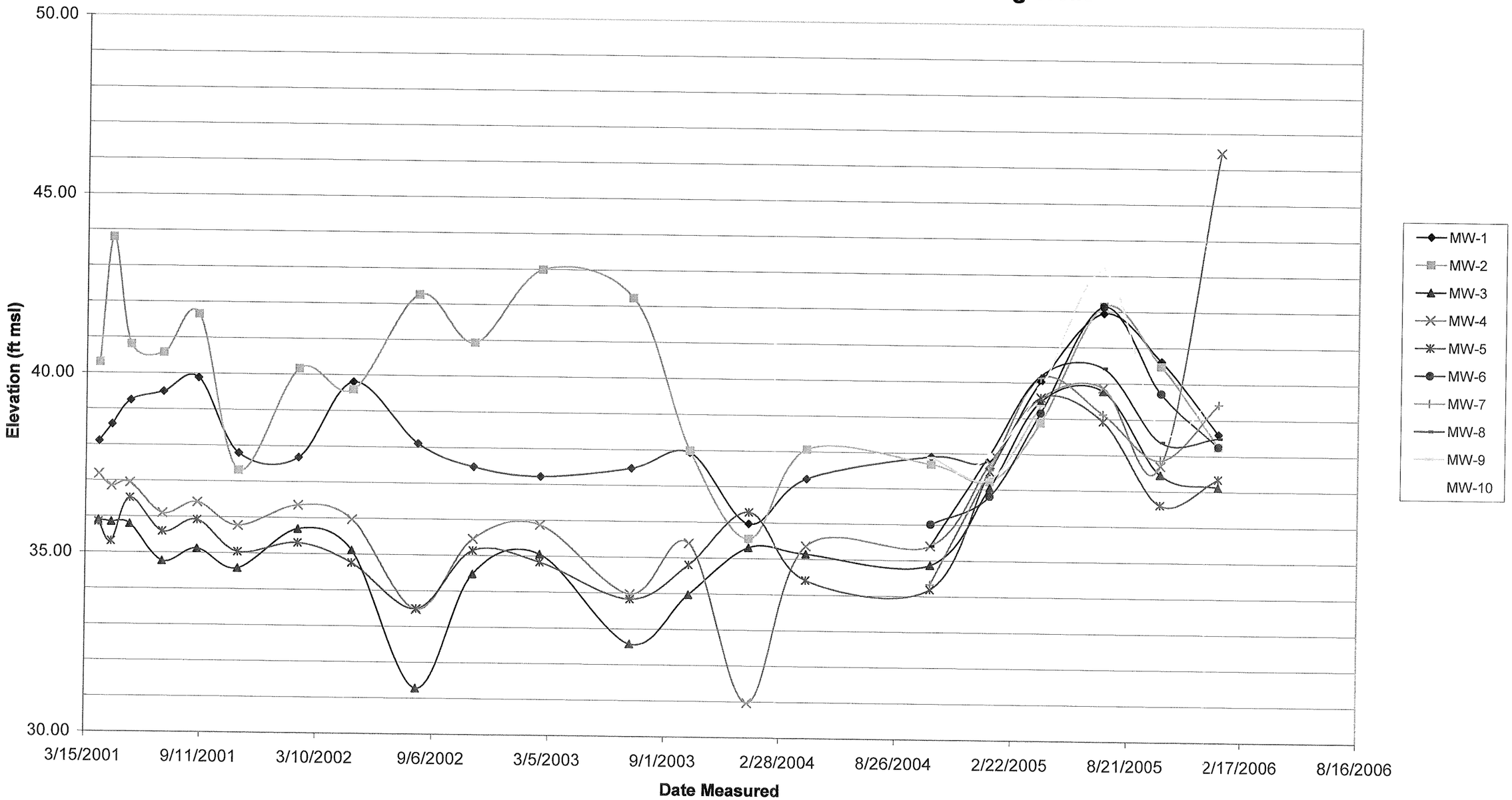
NOTE: ANALYTICAL RESULTS SHOWN FROM JANUARY 9, 2006 SAMPLING.

LEE&RO, Inc.
RANCHO CORDOVA, CALIFORNIA

CITY OF PATTERSON
WASTEWATER TREATMENT PLANT
14901 POPLAR AVENUE

FIGURE 1
MONITORING WELL LOCATION MAP
SCALE 1" = 600'

Figure 2
Groundwater Elevations in Patterson WWTP Monitoring Wells



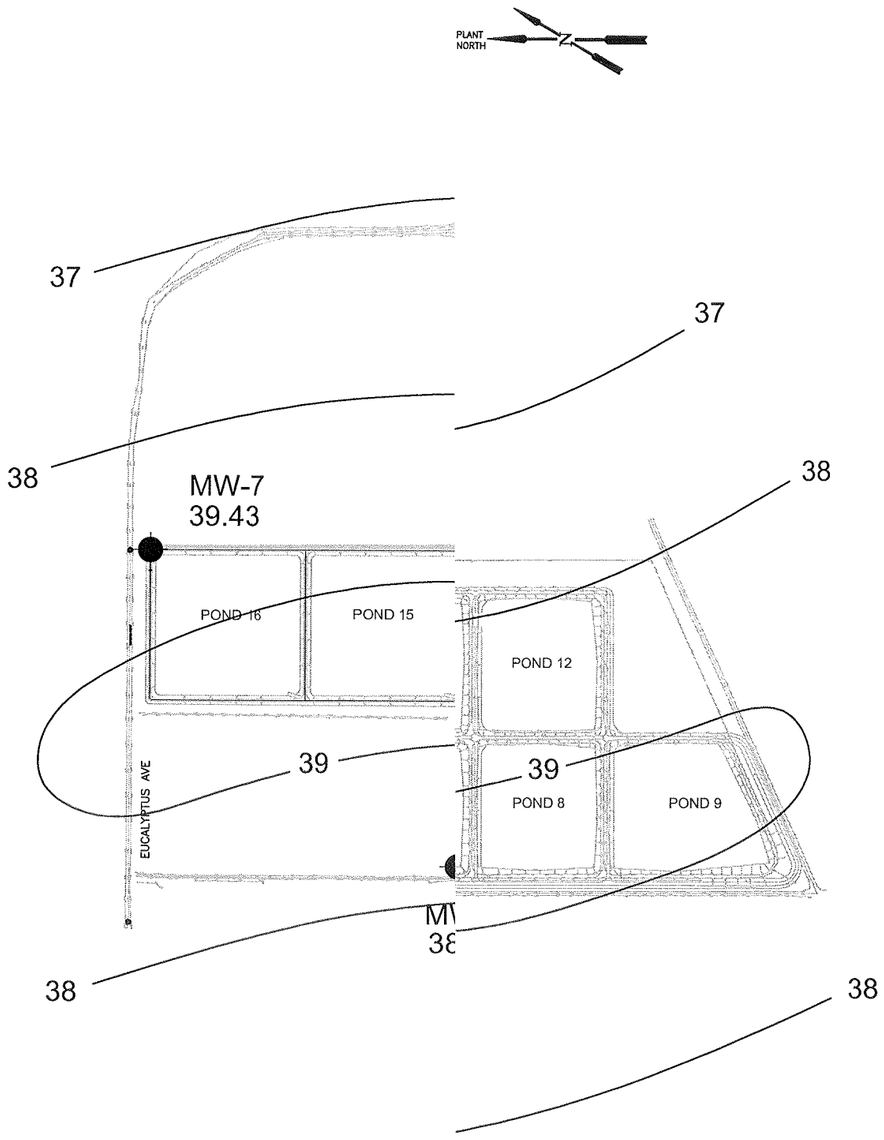


FIGURE 3
JANUARY 09, 2006
GROUNDWATER ELEVATION CONTOUR MAP
SCALE 1"=600'

APPENDIX A
PURGE LOGS

Measurement of Groundwater Levels

Project Name	Patterson WWTP	**Project No.**	721
		Recorded By	Richard Chrun/GeoAnalytical
Location	Monitoring Wells	**Date**	1/9/2006
Equipment Type	Solinst Water Level Meter	**Checked By**	
Equipment No.	1	**Date**	

Well Number	Time	Reference Point	Reference Elevation	Depth to Water	Water Elevation	Product Thickness	Product Elevation	Adjusted Water Elevation	Depth to Well Bottom	Notes (add below)
MW-1	8:18 AM	TOC	54.93	16.33	38.60	-	-	-	27.52	
MW-2	10:31 AM	TOC	59.68	21.43	38.25	-	-	-	31.28	
MW-3	9.17 AM	TOC	53.80	16.68	37.12	-	-	-	30.88	
MW-4	11:45 AM	TOC	58.58	12.13	46.45	-	-	-	31.64	
MW-5	11:07 AM	TOC	55.21	17.87	37.34	-	-	-	30.50	
MW-6	1:03 PM	TOC	55.23	16.98	38.25	-	-	-	30.00	
MW-7	12:38 PM	TOC	58.04	18.61	39.43	-	-	-	31.50	
MW-8	12:13 PM	TOC	59.33	20.84	38.49	-	-	-	29.50	
MW-10	9:48 AM	TOC	58.12	18.3	39.82	-	-	-	30.00	

Notes:

Report # _____

Field Log / Groundwater Sampling Form

Date 1/9/06

Client City of Patterson

Well Name MW-1

Project Name Quarterly Monitoring Wells

Well Type: ☑ Monitor ☐ Extraction ☐ Other _____

nsultant _____

rroj. Manager Richard Chrun

Sampler Richard Chrun

WELL PURGING

Purge Method

- ☐ Bailer - Type _____
- ☒ Pump - Type 2"
- ☐ Other _____

Multiplier

Well Casing I.D. (in.)	Gal/Ft.
2.0	0.1632
4.0	0.6527
6.0	1.4686

Purge Volume

Well Casing Diameter
- ☐ 2 - inch
- ☒ 4 - inch
- ☐ other _____

Well Volume Purged
- ☒ 3 volumes
- ☐ 4 volumes
- ☐ other _____

Total Well Depth 27.50

Depth to Water 16.33

Water Column Length 11.17

11.17 (Water column length) X 0.6527 (Multiplier) X 3 (No. Volumes) = 21.87 (CALCULATED. Purge Vol.)

21.87 (Purge Vol) / 2.5 (Purge Rate) = 8.74 (TOTAL PURGE TIME)

8.74 (Total Purge Time) / 3 (# Volumes) = 2.91 (PURGE TIME/VOL.)

Actual Values

Purge Time /Vol.	3
X	
No. Volumes	3
=	
Total Purge Time	9
X	
Purge Rate	2.5
=	
Actual Purge Vol.	22.5

GROUNDWATER PARAMETER MEASUREMENTS

	Time	Gallons	pH	Conductivity µmhos/cm	Temp. ☑ deg C ☐ deg F	DO	ORP	Color / Odor
Start	8:09	-	-	-	-	-	-	-
Vol 1	8:12	7.5	7.28	2.73 ms	17.9			clear / none
Vol 2	8:15	15.0	7.25	1767 µs	21.0			"
Vol 3	8:18	22.5	7.23	1772 µs	20.0			"
Vol 4								
Vol 5								

Meter Type IQ Scientific

Purge Water Storage / Disposal
- ☒ Drummed onsite
- ☐ Onsite Treatment System
- ☐ Other _____

COMMENTS/purge: _____

WELL SAMPLING

Sampling Method

- ☐ Bailer - Type _____
- ☒ Pump - Type _____
- ☐ Other _____

Time	Sample ID	Org	Dup	Split	Blank	Container Type	Number of Containers	Preservative
8:18am	MW-1	X				Pl Litre	1	4°C
						100ml sterile	1	4°C

COMMENTS/sampling: _____

1405 Kansas Ave.
Modesto, CA 95351

GeoAnalytical Laboratories, Inc.
Cert# 1157

Phone: (209) 572-0900
Fax: : (209) 572-0916

Report # _____

Field Log / Groundwater Sampling Form

Date 1/9/06

Client City of Patterson

Well Name MW-2

Project Name Quarterly Monitoring Wells

Well Type: ☑ Monitor ☐ Extraction ☐ Other _____

sultant _____

Proj. Manager Richard Chrun

Sampler Richard Chrun

WELL PURGING

Purge Method

- ☐ Bailer - Type _____
- ☒ Pump - Type 2"
- ☐ Other _____

Total Well Depth 31.40

Depth to Water 21.43

Water Column Length 9.97

Multiplier

Well Casing I.D. (in.)	Gal/Ft.
2.0	0.1632
4.0	0.6527
6.0	1.4686

Purge Volume

Well Casing Diameter
- ☐ 2 - inch
- ☒ 4 - inch
- ☐ other _____

Well Volume Purged
- ☒ 3 volumes
- ☐ 4 volumes
- ☐ other _____

9.97 (Water column length) X 0.6527 (Multiplier) X 3 (No. Volumes) = 19.52 (CALCULATED. Purge Vol.)

19.52 (Purge Vol) / 2.5 (Purge Rate) = 7.80 (TOTAL PURGE TIME)

7.80 (Total Purge Time) / 3 (# Volumes) = 2.60 (PURGE TIME/VOL.)

Actual Values

Purge Time /Vol.	3
X	
No. Volumes	3
=	
Total Purge Time	9
X	
Purge Rate	2.5
=	
Actual Purge Vol.	22.5

GROUNDWATER/WATER MEASUREMENTS

	Time	Gallons	pH	Conductivity µmhos/cm	Temp. ☑ deg C ☐ deg F	DO	ORP	Color / Odor
art	10:22	-	-	-	-	-	-	-
Vol 1	10:25	7.5	7.12	3.24 ms	19.8			clear/none
Vol 2	10:28	15	7.24	3.30 ms	19.9			"
Vol 3	10:31	22.5	7.17	3.29 ms	20.4			"
Vol 4								
Vol 5								

Meter Type IQ Scientific

Purge Water Storage / Disposal
- ☒ Drummed onsite
- ☐ Onsite Treatment System
- ☐ Other _____

COMMENTS/purge: _____

WELL SAMPLING

Sampling Method

- ☐ Bailer - Type _____
- ☒ Pump - Type _____
- ☐ Other _____

Time	Sample ID	Org	Dup	Split	Blank	Container Type	Number of Containers	Preservative
10:31 am	MW-2	X				Pl Litre	1	4°C
						100ml sterile	1	4°C

COMMENTS/sampling: _____

1405 Kansas Ave.
Modesto, CA 95351

GeoAnalytical Laboratories, Inc.
Cert# 1157

Phone: (209) 572-0900
Fax: : (209) 572-0916

Report # _____

Field Log / Groundwater Sampling Form

Date 1/9/06

Client City of Patterson

Well Name MW-3

Project Name Quarterly Monitoring Wells

Well Type: ☑ Monitor ☐ Extraction ☐ Other _____

sultant _____

Proj. Manager Richard Chrun

Sampler Richard Chrun

WELL PURGING

Purge Method

- ☐ Bailer - Type _____
- ☒ Pump - Type 2"
- ☐ Other _____

Multiplier

Well Casing I.D. (in.)	Gal/Ft.
2.0	0.1632
4.0	0.6527
6.0	1.4686

Purge Volume

Well Casing Diameter
- ☐ 2 - inch
- ☒ 4 - inch
- ☐ other _____

Well Volume Purged
- ☒ 3 volumes
- ☐ 4 volumes
- ☐ other _____

Total Well Depth 31.00

Depth to Water 16.68

Water Column Length 14.32

14.32 (Water column length) X 0.6527 (Multiplier) X 3 (No. Volumes) = 28.03 (CALCULATED. Purge Vol.)

28.03 (Purge Vol) / 2.5 (Purge Rate) = 11.21 (TOTAL PURGE TIME)

11.21 (Total Purge Time) / 3 (# Volumes) = 3.73 (PURGE TIME/VOL.)

Actual Values

Purge Time /Vol.	4
X No. Volumes	3
= Total Purge Time	12
X Purge Rate	2.5
= Actual Purge Vol.	30

GROUNDWATER PARAMETER MEASUREMENTS

	Time	Gallons	pH	Conductivity µmhos/cm	Temp. ☑ deg C ☐ deg F	DO	ORP	Color / Odor
art	9:05	-	-	-	-	-	-	-
Vol 1	9:09	10	7.29	3.81 ms	19.1			clear/none
Vol 2	9:13	20	7.20	3.80 ms	19.5			"
Vol 3	9:17	30	7.18	3.85 ms	19.9			"
Vol 4								
Vol 5								

Meter Type IQ Scientific

Purge Water Storage / Disposal
- ☒ Drummed onsite
- ☐ Onsite Treatment System
- ☐ Other _____

COMMENTS/purge: _____

WELL SAMPLING

Sampling Method

- ☐ Bailer - Type _____
- ☒ Pump - Type _____
- ☐ Other _____

Time	Sample ID	Org	Dup	Split	Blank	Container Type	Number of Containers	Preservative
9:17am	MW-3	x				Pl Litre	1	4°C
						100ml sterile	1	4°C

COMMENTS/sampling: _____

1405 Kansas Ave.
Modesto, CA 95351

GeoAnalytical Laboratories, Inc.
Cert# 1157

Phone: (209) 572-0900
Fax: : (209) 572-0916

Report # _____

Field Log / Groundwater Sampling Form

Date 1/9/06

Client City of Patterson

Well Name MW-4

Project Name Quarterly Monitoring Wells

Well Type : ☑ Monitor ☐ Extraction ☐ Other _____

sultant _____

Proj. Manager Richard Chrun

Sampler Richard Chrun

WELL PURGING

Purge Method

- ☐ Bailer - Type _____
- ☒ Pump - Type 2"
- ☐ Other _____

Total Well Depth 31.00

Depth to Water 12.13

= Water Column Length 18.87

Multiplier

Well Casing I.D. (in.)	Gal/Ft.
2.0	0.1632
4.0	0.6527
6.0	1.4686

Purge Volume

Well Casing Diameter
- ☐ 2 - inch
- ☒ 4 - inch
- ☐ other _____

Well Volume Purged
- ☒ 3 volumes
- ☐ 4 volumes
- ☐ other _____

18.87 (Water column length) X 0.6527 (Multiplier) X 3 (No. Volumes) = 36.94 (CALCULATED. Purge Vol.)

36.94 (Purge Vol) / 2.5 (Purge Rate) = 14.77 (TOTAL PURGE TIME)

14.77 (Total Purge Time) / 3 (# Volumes) = 4.92 (PURGE TIME/VOL.)

Actual Values

Purge Time /Vol.	5
X No. Volumes	3
= Total Purge Time	15
X Purge Rate	2.5
= Actual Purge Vol.	37.5

GROUNDWATER PARAMATER MEASUSREMENTS

	Time	Gallons	pH	Conductivity µmhos/cm	Temp. ☐ deg C ☐ deg F	DO	ORP	Color / Odor
art	11:30	-	-	-	-	-	-	-
vol 1	11:35	12.5	7.16	1745 us	19.7			clear/none
Vol 2	11:40	25.0	7.09	1740 us	19.6			"
Vol 3	11:45	37.5	7.07	1764 us	19.4			"
Vol 4								
Vol 5								

Meter Type IQ Scientific

Purge Water Storage / Disposal
- ☒ Drummed onsite
- ☐ Onsite Treatment System
- ☐ Other _____

COMMENTS/purge: _____

WELL SAMPLING

Sampling Method

- ☐ Bailer - Type _____
- ☒ Pump - Type _____
- ☐ Other _____

Time	Sample ID	Org	Dup	Split	Blank	Container Type	Number of Containers	Preservative
11:45Am	MW-4	X				Pl Litre	1	4°C
						100ml sterile	1	4°C

COMMENTS/sampling: _____

1405 Kansas Ave.
Modesto, CA 95351

GeoAnalytical Laboratories, Inc.
Cert# 1157

Phone: (209) 572-0900
Fax: : (209) 572-0916

Report # _____ **Field Log / Groundwater Sampling Form** Date 1/9/06

Client City of Patterson **Well Name** MW-5

Project Name Quarterly Monitoring Wells Well Type: ☑ Monitor ☐ Extraction ☐ Other _____

sultant _____

Proj. Manager Richard Chrun **Sampler** Richard Chrun

WELL PURGING

Purge Method

☐ Bailer - Type _____
☒ Pump - Type 2"
☐ Other _____

Total Well Depth 31.00
Depth to Water 17.87
Water Column Length 13.13

Multiplier

Well Casing I.D. (in.)	Gal/Ft.
2.0	0.1632
4.0	0.6527
6.0	1.4686

Purge Volume

Well Casing Diameter
☐ 2 - inch
☒ 4 - inch
☐ other _____

Well Volume Purged
☒ 3 volumes
☐ 4 volumes
☐ other _____

13.13 (Water column length) X 0.6527 (Multiplier) X 3 (No. Volumes) = 25.70 CALCULATED. Purge Vol.

25.70 (Purge Vol) / 2.5 (Purge Rate) = 10.28 TOTAL PURGE TIME

10.28 (Total Purge Time) / 3 (# Volumes) = 3.42 PURGE TIME/VOL.

Actual Values

Purge Time /Vol.	4
X	
No. Volumes	3
=	
Total Purge Time	12
X	
Purge Rate	2.5
=	
Actual Purge Vol.	30

GROUNDWATER PARAMETER MEASUREMENTS

	Time	Gallons	pH	Conductivity µmhos/cm	Temp. ☑ deg C ☐ deg F	DO	ORP	Color / Odor
art	10:55	-	-	-	-	-	-	-
Vol 1	10:59	10	7.11	3.03 ms	19.0			turbid / none
Vol 2	11:03	20	7.06	3.05 ms	19.3			clear / none
Vol 3	11:07	30	7.00	3.06 ms	19.6			"
Vol 4								
Vol 5								

Meter Type IQ Scientific

Purge Water Storage / Disposal
☒ Drummed onsite
☐ Onsite Treatment System
☐ Other _____

COMMENTS/purge: _____

WELL SAMPLING

Sampling Method

☐ Bailer - Type _____
☒ Pump - Type _____
☐ Other _____

Time	Sample ID	Org	Dup	Split	Blank	Container Type	Number of Containers	Preservative
11:07am	MW-5	X				Pl Litre	1	4°C
						100ml sterile	1	4°C

COMMENTS/sampling: _____

1405 Kansas Ave.
Modesto, CA 95351

GeoAnalytical Laboratories, Inc.
Cert# 1157

Phone: (209) 572-0900
Fax: : (209) 572-0916

Report # SJA0907 **Field Log / Groundwater Sampling Form** Date 1/9/06

Client City of Patterson **Well Name** MW-6

Project Name Quarterly Monitoring Wells Well Type : ☑ Monitor ☐ Extraction ☐ Other

Consultant

Proj. Manager Richard Chrun **Sampler** Rich Chrun

WELL PURGING

Purge Method

☐ Bailer - Type
☒ Pump - Type 2"
☐ Other

Total Well Depth 29.20
Depth to Water 16.98
= Water Column Length 12.22

Multiplier

Well Casing I.D. (in.)	Gal/Ft.
2.0	0.1632
4.0	0.6527
6.0	1.4686

Purge Volume

Well Casing Diameter
☒ 2 - inch
☐ 4 - inch
☐ other

Well Volume Purged
☒ 3 volumes
☐ 4 volumes
☐ other

12.22 Water column length X 0.1632 Multiplier X 3 No. Volumes = 5.98 CALCULATED. Purge Vol.

5.98 Purge Vol / 2.5 Purge Rate = 2.39 TOTAL PURGE TIME

2.39 Total Purge Time / 3 # Volumes = 0.79 PURGE TIME/VOL.

Actual Values

Purge Time /Vol.	1
X No. Volumes	3
= Total Purge Time	3
X Purge Rate	2.5
= Actual Purge Vol.	7.5

GROUNDWATER PARAMATER MEASUSREMENTS

	Time	Gallons	pH	Conductivity µmhos/cm	Temp. ☑ deg C ☐ deg F	DO	ORP	Color / Odor
Start	1:00pm	-	-	-	-	-	-	-
Vol 1	1:01	2.5	7.27	1559 µs	19.1			turbid / none
Vol 2	1:02	5.0	7.25	1540 µs	19.4			"
Vol 3	1:03	7.5	7.21	1547 µs	20.0			"
Vol 4								
Vol 5								

Meter Type IQ Scientific

Purge Water Storage / Disposal
☒ Drummed onsite
☐ Onsite Treatment System
☐ Other

COMMENTS/purge:

WELL SAMPLING

Sampling Method

☐ Bailer - Type
☒ Pump - Type
☐ Other

Time	Sample ID	Org	Dup	Split	Blank	Container Type	Number of Containers	Preservative
1:03pm	MW-9	X				Pl Litre	1	4°C
						100ml sterile	1	4°C

COMMENTS/sampling:

1405 Kansas Ave.
Modesto, CA 95351

GeoAnalytical Laboratories, Inc.
Cert# 1157

Phone: (209) 572-0900
Fax: : (209) 572-0916

Report # _____

Field Log / Groundwater Sampling Form

Date 1/9/06

Client City of Patterson

Well Name MW-7

Project Name Quarterly Monitoring Wells

Well Type : ☑ Monitor ☐ Extraction ☐ Other _____

onsultant _____

Proj. Manager Richard Chrun

Sampler Rich Chrun

WELL PURGING

Purge Method

- ☐ Bailer - Type _____
- ☒ Pump - Type 2"
- ☐ Other _____

Total Well Depth 31.00

Depth to Water 18.61

= Water Column Length 12.39

Multiplier

Well Casing I.D. (in.)	Gal/Ft.
2.0	0.1632
4.0	0.6527
6.0	1.4686

Purge Volume

Well Casing Diameter
- ☒ 2 - inch
- ☐ 4 - inch
- ☐ other _____

Well Volume Purged
- ☒ 3 volumes
- ☐ 4 volumes
- ☐ other _____

12.39 (Water column length) X 0.1632 (Multiplier) X 3 (No. Volumes) = 6.06 (CALCULATED. Purge Vol.)

6.06 (Purge Vol) / 2.5 (Purge Rate) = 2.42 (TOTAL PURGE TIME)

2.42 (Total Purge Time) / 3 (# Volumes) = 0.80 (PURGE TIME/VOL.)

Actual Values

Purge Time /Vol.	1
X	
No. Volumes	3
=	
Total Purge Time	3
X	
Purge Rate	2.5
=	
Actual Purge Vol.	7.5

GROUNDWATER PARAMATER MEASUSREMENTS

	Time	Gallons	pH	Conductivity µmhos/cm	Temp. ☑ deg C ☐ deg F	DO	ORP	Color / Odor
Start	12:35	-	-	-	-	-	-	-
Vol 1	12:36	2.5	7.15	1841 µs	18.8			turbid / none
Vol 2	12:37	5.0	7.15	1842 µs	19.2			"
Vol 3	12:38	7.5	7.14	1844 µs	19.2			"
Vol 4								
Vol 5								

Meter Type IQ Scientific

Purge Water Storage / Disposal
- ☒ Drummed onsite
- ☐ Onsite Treatment System
- ☐ Other _____

COMMENTS/purge: _____

WELL SAMPLING

Sampling Method

- ☐ Bailer - Type _____
- ☒ Pump - Type _____
- ☐ Other _____

Time	Sample ID	Org	Dup	Split	Blank	Container Type	Number of Containers	Preservative
12:38pm	MW-7	V				Pl Litre	1	4°C
						100ml sterile	1	4°C

COMMENTS/sampling: _____

1405 Kansas Ave.
Modesto, CA 95351

GeoAnalytical Laboratories, Inc.
Cert# 1157

Phone: (209) 572-0900
Fax: : (209) 572-0916

Report # _____

Field Log / Groundwater Sampling Form

Date 1/9/06

Client City of Patterson

Well Name MW-8

Project Name Quarterly Monitoring Wells

Well Type : ☐ Monitor ☐ Extraction ☐ Other _____

Consultant _____

Proj. Manager Richard Chrun

Sampler Rich Chrun

WELL PURGING

Purge Method

- ☐ Bailer - Type _____
- ☒ Pump - Type 2"
- ☐ Other _____

Multiplier

Well Casing I.D. (in.)	Gal/Ft.
2.0	0.1632
4.0	0.6527
6.0	1.4686

Purge Volume

Well Casing Diameter
- ☒ 2 - inch
- ☐ 4 - inch
- ☐ other _____

Well Volume Purged
- ☒ 3 volumes
- ☐ 4 volumes
- ☐ other _____

Total Well Depth 30.70

Depth to Water 20.84

Water Column Length 9.86

9.86 (Water column length) X 0.1632 (Multiplier) X 3 (No. Volumes) = 4.82 (CALCULATED. Purge Vol.)

4.82 (Purge Vol) / 2.5 (Purge Rate) = 1.93 (TOTAL PURGE TIME)

1.93 (Total Purge Time) / 3 (# Volumes) = 0.64 (PURGE TIME/VOL.)

Actual Values

Purge Time /Vol.	1
X No. Volumes	3
= Total Purge Time	3
X Purge Rate	2.5
= Actual Purge Vol.	7.5

GROUNDWATER PARAMATER MEASUSREMENTS

	Time	Gallons	pH	Conductivity µmhos/cm	Temp. ☐ deg C ☐ deg F	DO	ORP	Color / Odor
Start	12:10	-	-	-	-	-	-	-
Vol 1	12:11	2.5	7.22	2.91	19.3			turbid / none
Vol 2	12:12	5.0	7.16	1956 us	19.4			"
Vol 3	12:13	7.5	7.14	1978 us	18.8			"
Vol 4								
Vol 5								

Meter Type IQ Scientific

Purge Water Storage / Disposal
- ☒ Drummed onsite
- ☐ Onsite Treatment System
- ☐ Other _____

COMMENTS/purge: _____

WELL SAMPLING

Sampling Method

- ☐ Bailer - Type _____
- ☒ Pump - Type _____
- ☐ Other _____

Time	Sample ID	Org	Dup	Split	Blank	Container Type	Number of Containers	Preservative
12:13 pm	MW-8	✓				Pl Litre	1	4°C
						100ml sterile	1	4°C

COMMENTS/sampling: _____

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Modesto, CA 95351

GeoAnalytical Laboratories, Inc.
Cert# 1157

Phone: (209) 572-0900
Fax: : (209) 572-0916

Report # _____

Field Log / Groundwater Sampling Form

Date 1/9/06

Client City of Patterson

Well Name MW-10

Project Name Quarterly Monitoring Wells

Well Type: ☑ Monitor ☐ Extraction ☐ Other _____

Consultant _____

Proj. Manager Richard Chrun

Sampler Rich Chrun

WELL PURGING

Purge Method

- ☐ Bailer - Type _____
- ☒ Pump - Type 2"
- ☐ Other _____

Total Well Depth 30.00

Depth to Water 18.30

= Water Column Length 11.70

Multiplier

Well Casing I.D. (in.)	Gal/Ft.
2.0	0.1632
4.0	0.6527
6.0	1.4686

Purge Volume

Well Casing Diameter
- ☒ 2 - inch
- ☐ 4 - inch
- ☐ other _____

Well Volume Purged
- ☒ 3 volumes
- ☐ 4 volumes
- ☐ other _____

11.70 (Water column length) X 0.1632 (Multiplier) X 3 (No. Volumes) = 5.72 (CALCULATED. Purge Vol.)

5.72 (Purge Vol) / 2.5 (Purge Rate) = 2.29 (TOTAL PURGE TIME)

2.29 (Total Purge Time) / 3 (# Volumes) = 0.76 (PURGE TIME/VOL.)

Actual Values

Purge Time /Vol.	1
X No. Volumes	3
= Total Purge Time	3
X Purge Rate	2.5
= Actual Purge Vol.	7.5

GROUNDWATER PARAMATER MEASUSREMENTS

	Time	Gallons	pH	Conductivity µmhos/cm	Temp. ☑ deg C ☐ deg F	DO	ORP	Color / Odor
Start	9:45	-	-	-	-	-	-	-
Vol 1	9:46	2.5	7.16	1575 µs	17.1			turbid / none
Vol 2	9:47	5.0	7.15	1751 µs	17.9			"
Vol 3	9:48	7.5	7.14	1821 µs	18.0			"
Vol 4								
Vol 5								

Meter Type IQ Scientific

Purge Water Storage / Disposal
- ☒ Drummed onsite
- ☐ Onsite Treatment System
- ☐ Other _____

COMMENTS/purge: _____

WELL SAMPLING

Sampling Method

- ☐ Bailer - Type _____
- ☒ Pump - Type _____
- ☐ Other _____

Time	Sample ID	Org	Dup	Split	Blank	Container Type	Number of Containers	Preservative
9:48am	MW-10	X				Pl Litre	1	4°C
						100ml sterile	1	4°C

COMMENTS/sampling: _____

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Modesto, CA 95351

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Cert# 1157

Phone: (209) 572-0900
Fax: : (209) 572-0916

APPENDIX B
LABORATORY ANALYTICAL REPORT

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue
Modesto, CA 95351

Phone: (209) 572-0900
Fax: (209) 572-0916

Lab Report # SLA090607

Regulatory ☐ Yes ☐ No CC: ☐ Yes ☐ No

Regulator:

Client: City of Patterson

Address: 33 S. Del Puerto

City Patterson, CA Zip 95363

Phone: (209) 892-8886

Fax: (209) 892-8993

Original To: Joel Cockrell

C.C To: Bob Goodwin

CHAIN OF CUSTODY

☐ EDF ☐ EDT

☐ FIELD LOGS

Project ID Quarterly Monitoring Wells

Sampled By (Print Name) Richard Crum

(Signature) Richard Crum

Date	Time	Sample type Grab	Sample type Comp	Matrix	Sample ID	Container Type	Container Size	No. Of Containers	ANALYSIS pH	EC, TDS	Nitrate as NO3	Bact. (MPN)	Remarks	Lab Use Only Lab ID #	Preservative
1-9-06	8:18 AM				MW-1	P	100ml/L	2	X	X	X			-01	
	10:3[illegible]AM				MW-2									-02	
	9:17AM				MW-3									-03	
	11:45AM				MW-4									-04	
	11:07AM				MW-5									-05	
	1:03PM				MW-6									-06	
	12:38PM				MW-7									-07	
	12:13PM				MW-8									-08	
	9:48AM				MW-10									-09	
	10:45AM				Mitigation Well									-10	

Remarks

Relinquished by (Signature)	Date	Time	Received by (Signature)	Date	Time
Richard Crum	1-9-06	1:35pm	[signature]	1/9/06	1:35
Relinquished by (Signature)	Date	Time	Received by (Signature)	Date	Time

Preservative: 1 4°C 2 HCL 3 NaOH 4 $Na_2S_2O_3$ 5 HNO_3 6 H_2SO_4 7 Other

Matrix: DW Drinking Water WW Waste Water HWW Hazardous Waste (Water) S Soil/Solid

Bailers 9 55 Gallon Drums

Pump Truck ☒ Time 1 Day Mileage 32 miles

Turnaround Time ☐ Standard ☐ Silver Rush ☐ Gold Rush ☐ Platinum Rush ☐ Other

Approved By:

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue Modesto, CA 95351 Phone (209) 572-0900 Fax (209) 572-0916

CERTIFICATE OF ANALYSIS

rt # S6A0907 **Date:** 01/11/06

ity of Patterson **Project:** Quarterly Monitoring Wells **Date Rec'd:** 01/09/06

33 S. Del Puerto

Patterson CA, 95363 **PO#**

mple ID: MW-1 **Date Sampled:** 01/09/06

Lab ID: S6A0907-01 **Time:** 8:18

norganic Chemistry of Wastewater **Sampler:** Richard Chrun

ethod	RL	Analyte	Result	Units	Analyzed	Batch #
150.1		pH	**7.4**	Std. Units	01/09/06	S000217
120.1	1.00	Specific Conductance (EC)	**2350**	umhos/cm	01/10/06	S000052
0.1	10	Total Dissolved Solids (TDS)	**1600**	mg/L	01/10/06	S000076
300.0	0.25	Nitrate as N	**14**		01/10/06	S000215

Rohit Bombaywala
Chemist

Donna Keller
Laboratory Director

Certification # 2585

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue Modesto, CA 95351 Phone (209) 572-0900 Fax (209) 572-0916

CERTIFICATE OF ANALYSIS

I rt # S6A0907

Date: 01/11/06

ity of Patterson
33 S. Del Puerto
Patterson CA, 95363

Project: Quarterly Monitoring Wells

Date Rec'd: 01/09/06

PO#

ample ID: MW-2
Lab ID: S6A0907-02

Date Sampled: 01/09/06
Time: 10:31
Sampler: Richard Chrun

Inorganic Chemistry of Wastewater

ethod	RL	Analyte	Result	Units	Analyzed	Batch #
150.1		pH	**7.2**	Std. Units	01/09/06	S000217
160.1	10	Total Dissolved Solids (TDS)	**2100**	mg/L	01/10/06	S000076
00.0	0.25	Nitrate as N	**17**		01/10/06	S000215

Rohit Bombaywala
Chemist

Donna Keller
Laboratory Director

Certification # 2585

GeoAnalytical Laboratories, Inc.

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CERTIFICATE OF ANALYSIS

l ort # **S6A0907**

Date: 01/11/06

ity of Patterson
03 S. Del Puerto
Patterson CA, 95363

Project: Quarterly Monitoring Wells

Date Rec'd: 01/09/06

PO#

ample ID: MW-3
Lab ID: S6A0907-03

Date Sampled: 01/09/06
Time: 9:17
Sampler: Richard Chrun

Inorganic Chemistry of Wastewater

ethod	RL	Analyte	Result	Units	Analyzed	Batch #
150.1		pH	**6.9**	Std. Units	01/09/06	S000217
120.1	1.00	Specific Conductance (EC)	**3650**	umhos/cm	01/10/06	S000052
0.1	10	Total Dissolved Solids (TDS)	**2500**	mg/L	01/10/06	S000076
0.0	0.25	Nitrate as N	**8.4**		01/10/06	S000215

Rohit Bombaywala
Chemist

Donna Keller
Laboratory Director

Certification # 2585

GeoAnalytical Laboratories, Inc.

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CERTIFICATE OF ANALYSIS

I rt # S6A0907 **Date:** 01/11/06

:ity of Patterson **Project:** Quarterly Monitoring Wells **Date Rec'd:** 01/09/06
.3 S. Del Puerto
Patterson CA, 95363 **PO#**

ample ID: MW-4 **Date Sampled:** 01/09/06
Lab ID: S6A0907-04 **Time:** 11:45
Inorganic Chemistry of Wastewater **Sampler:** Richard Chrun

ethod	RL	Analyte	Result	Units	Analyzed	Batch #
150.1		pH	**6.9**	Std. Units	01/09/06	S000217
120.1	1.00	Specific Conductance (EC)	**2580**	umhos/cm	01/10/06	S000052
0.1	10	Total Dissolved Solids (TDS)	**1500**	mg/L	01/10/06	S000076
..0.0	0.25	Nitrate as N	ND		01/10/06	S000215

Rohit Bombaywala
Chemist

Donna Keller
Laboratory Director

Certification # 2585

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CERTIFICATE OF ANALYSIS

R :t # S6A0907

Date: 01/11/06

:ity of Patterson
-3 S. Del Puerto
Patterson CA, 95363

Project: Quarterly Monitoring Wells

Date Rec'd: 01/09/06

PO#

ample ID: MW-5
Lab ID: S6A0907-05

Date Sampled: 01/09/06
Time: 11:07
Sampler: Richard Chrun

Inorganic Chemistry of Wastewater

ethod	RL	Analyte	Result	Units	Analyzed	Batch #
150.1		pH	**6.5**	Std. Units	01/09/06	S000217
120.1	1.00	Specific Conductance (EC)	**2780**	umhos/cm	01/10/06	S000052
0.1	10	Total Dissolved Solids (TDS)	**1700**	mg/L	01/10/06	S000076
0.0	0.25	Nitrate as N	**0.25**		01/10/06	S000215

Rohit Bombaywala
Chemist

Donna Keller
Laboratory Director

Certification # 2585

GeoAnalytical Laboratories, Inc.

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CERTIFICATE OF ANALYSIS

I rt # S6A0907 **Date:** 01/11/06

ity of Patterson **Project:** Quarterly Monitoring Wells **Date Rec'd:** 01/09/06

33 S. Del Puerto

Patterson CA, 95363 **PO#**

mple ID: MW-6 **Date Sampled:** 01/09/06

Lab ID: S6A0907-06 **Time:** 13:03

Inorganic Chemistry of Wastewater **Sampler:** Richard Chrun

ethod	RL	Analyte	Result	Units	Analyzed	Batch #
150.1		pH	**7.3**	Std. Units	01/09/06	S000217
120.1	1.00	Specific Conductance (EC)	**2090**	umhos/cm	01/10/06	S000052
).1	10	Total Dissolved Solids (TDS)	**1300**	mg/L	01/10/06	S000076
300.0	0.25	Nitrate as N	**5.5**		01/10/06	S000215

Rohit Bombaywala
Chemist

Donna Keller
Laboratory Director

Certification # 2585

GeoAnalytical Laboratories, Inc.

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CERTIFICATE OF ANALYSIS

F rt # S6A0907

Date: 01/11/06

ity of Patterson
3 S. Del Puerto
Patterson CA, 95363

Project: Quarterly Monitoring Wells

PO#

Date Rec'd: 01/09/06

mple ID: MW-7
ab ID: S6A0907-07

Date Sampled: 01/09/06
Time: 12:38
Sampler: Richard Chrun

Inorganic Chemistry of Wastewater

ethod	RL	Analyte	Result	Units	Analyzed	Batch #
0.1		pH	**7.0**	Std. Units	01/09/06	S000217
120.1	1.00	Specific Conductance (EC)	**2600**	umhos/cm	01/10/06	S000052
0.1	10	Total Dissolved Solids (TDS)	**1600**	mg/L	01/10/06	S000076
0.0	0.25	Nitrate as N	**5.5**		01/10/06	S000215

Rohit Bombaywala
Chemist

Donna Keller
Laboratory Director

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CERTIFICATE OF ANALYSIS

I rt # S6A0907

Date: 01/11/06

ity of Patterson
3 S. Del Puerto
Patterson CA, 95363

Project: Quarterly Monitoring Wells

PO#

Date Rec'd: 01/09/06

mple ID: MW-8
ab ID: S6A0907-08

Date Sampled: 01/09/06
Time: 12:13
Sampler: Richard Chrun

Inorganic Chemistry of Wastewater

ethod	RL	Analyte	Result	Units	Analyzed	Batch #
50.1		pH	**7.0**	Std. Units	01/09/06	S000217
120.1	1.00	Specific Conductance (EC)	**2890**	umhos/cm	01/10/06	S000052
0.1	10	Total Dissolved Solids (TDS)	**1800**	mg/L	01/10/06	S000076
0.0	0.25	Nitrate as N	**5.9**		01/10/06	S000215

Rohit Bombaywala
Chemist

Donna Keller
Laboratory Director

Certification # 2585

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CERTIFICATE OF ANALYSIS

Report # S6A0907 **Date:** 01/11/06

ity of Patterson **Project:** Quarterly Monitoring Wells **Date Rec'd:** 01/09/06

33 S. Del Puerto

Patterson CA, 95363 **PO#**

Sample ID: MW-10 **Date Sampled:** 01/09/06

Lab ID: S6A0907-09 **Time:** 9:48

Inorganic Chemistry of Wastewater **Sampler:** Richard Chrun

Method	RL	Analyte	Result	Units	Analyzed	Batch #
150.1		pH	**7.0**	Std. Units	01/09/06	S000217
120.1	1.00	Specific Conductance (EC)	**2610**	umhos/cm	01/10/06	S000052
).1	10	Total Dissolved Solids (TDS)	**1500**	mg/L	01/10/06	S000076
).0	0.25	Nitrate as N	**3.2**		01/10/06	S000215

Rohit Bombaywala
Chemist

Donna Keller
Laboratory Director

Certification # 2585

GeoAnalytical Laboratories, Inc.

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CERTIFICATE OF ANALYSIS

R t # S6A0907

Date: 01/11/06

ity of Patterson
3 S. Del Puerto
Patterson CA, 95363

Project: Quarterly Monitoring Wells

PO#

Date Rec'd: 01/09/06

mple ID: Mitigation Well
ab ID: S6A0907-10

Date Sampled: 01/09/06
Time: 10:45
Sampler: Richard Chrun

Inorganic Chemistry of Wastewater

ethod	RL	Analyte	Result	Units	Analyzed	Batch #
0.1		pH	**7.3**	Std. Units	01/09/06	S000217
120.1	1.00	Specific Conductance (EC)	**2690**	umhos/cm	01/10/06	S000052
0.1	10	Total Dissolved Solids (TDS)	**1600**	mg/L	01/10/06	S000076
0.0	0.25	Nitrate as N	**5.0**		01/10/06	S000215

Rohit Bombaywala
Chemist

Donna Keller
Laboratory Director

Certification # 2585

GeoAnalytical Laboratories, Inc.

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CERTIFICATE OF ANALYSIS

F rt # S6A0907 **Date:** 01/11/06

ity of Patterson
3 S. Del Puerto
Patterson CA, 95363

Project: Quarterly Monitoring Wells **Date Rec'd:** 01/09/06

PO#

Inorganic Chemistry of Wastewater - Quality Control

GeoAnalytical Laboratories, Inc.

atch S000052 - NO PREP **Prepared & Analyzed: 01/10/06**

alyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (S000052-BLK1)										
ecific Conductance (EC)	ND	1.00	umhos/cm							
Duplicate (S000052-DUP1)		**Source: S6A0904-01**								
Specific Conductance (EC)	1550	1.00	umhos/cm		1550			0.00	200	
plicate (S000052-DUP2)		**Source: S6A0904-01**								
Specific Conductance (EC)	1550	1.00	umhos/cm		1550			0.00	200	
ank (S000076-BLK1)										
otal Dissolved Solids (TDS)	ND	10	mg/L							
plicate (S000076-DUP1)		**Source: S6A0907-01**								
issolved Solids (TDS)	790	10	mg/L		1600			67.8	200	
Duplicate (S000076-DUP2)		**Source: S6A0907-01**								
tal Dissolved Solids (TDS)	800	10	mg/L		1600			66.7	200	
Blank (S000215-BLK1)										
rate as N	ND	0.25	mg/L							
S (S000215-BS1)										
Nitrate as N	24	0.25	mg/L	25.0		96.0	85-115			

GeoAnalytical Laboratories, Inc.

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CERTIFICATE OF ANALYSIS

R rt # S6A0907

Date: 01/11/06

:ity of Patterson
_3 S. Del Puerto
Patterson CA, 95363

Project: Quarterly Monitoring Wells

Date Rec'd: 01/09/06

PO#

Inorganic Chemistry of Wastewater - Quality Control

GeoAnalytical Laboratories, Inc.

atch S000215 - NO PREP **Prepared & Analyzed: 01/10/06**

nalyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (S000215-BSD1)										
trate as N	24	0.25	mg/L	25.0		96.0	85-115	0.00	20	
Duplicate (S000217-DUP1)	**Source: S6A0907-01**									
l	7.4		Std. Units		7.4			0.00	200	

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue Modesto, CA 95351 Phone (209) 572-0900 Fax (209) 572-0916

CERTIFICATE OF ANALYSIS

R ·t # S6A0907 **Date:** 01/09/06

:ity of Patterson
3 S. Del Puerto
Patterson CA, 95363

Project: Quarterly Monitoring Wells **Date Rec'd:** 01/09/06

PO#

Microbiology of Wastewater

Date Sampled: 01/09/06
Sampler: Richard Chrun

ample ID	Time:	Lab ID	RL	Method	Analyte	Result	Units	Analyzed	Batch #
MW-I	8:18	S6A0907-01	2.0	SM9221B, E,	Total Coliform	<2	MPN/mL	01/18/06	S000057
IW-2	10:31	S6A0907-02	2.0	SM9221B, E,	Total Coliform	<2	MPN/mL	01/18/06	S000057
·IW-3	9:17	S6A0907-03	2.0	SM9221B, E,	Total Coliform	<2	MPN/mL	01/18/06	S000057
MW-4	11:45	S6A0907-04	2.0	SM9221B, E,	Total Coliform	<2	MPN/mL	01/18/06	S000057
W-5	11:07	S6A0907-05	2.0	SM9221B, E,	Total Coliform	<2	MPN/mL	01/18/06	S000057
MW-6	13:03	S6A0907-06	2.0	SM9221B, E,	Fecal Coliform	**50**	MPN/mL	01/18/06	S000057
	13:03		2.0		Total Coliform	**50**			
MW-7	12:38	S6A0907-07	2.0	SM9221B, E,	Total Coliform	<2	MPN/mL	01/18/06	S000057
	12:13	S6A0907-08	2.0	SM9221B, E,	Total Coliform	<2	MPN/mL	01/18/06	S000057
MW-10	9:48	S6A0907-09	2.0	SM9221B, E,	Fecal Coliform	<2	MPN/mL	01/18/06	S000057
	9:48		2.0		Total Coliform	**13**			
Mitigation Well	10:45	S6A0907-10	2.0	SM9221B, E,	Fecal Coliform	ND	MPN/mL	01/18/06	S000057
itigation Well	10:45	S6A0907-10	2.0		Total Coliform	<2			

Kanti Gandhi
Chemist

Donna Keller
Laboratory Director

Certification # 2585

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue Modesto, CA 95351 Phone (209) 572-0900 Fax (209) 572-0916

CERTIFICATE OF ANALYSIS

R t # S6A0907

Date: 01/09/06

ity of Patterson
3 S. Del Puerto
Patterson CA, 95363

Project: Quarterly Monitoring Wells

Date Rec'd: 01/09/06

PO#

Microbiology of Wastewater - Quality Control

GeoAnalytical Laboratories, Inc.

Batch S000057 - NO PREP **Prepared: 01/09/06 Analyzed: 01/18/06**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (S000057-BLK1)										
Total Coliform	<2	2.0	MPN/mL							
cal Coliform	<2	2.0	"							
LCS (S000057-BS1)										
Total Coliform	<2	2.0	MPN/mL				0-200			
CS Dup (S000057-BSD1)										
Total Coliform	<2	2.0	MPN/mL				0-200	0.00	200	