

**QUARTERLY MONITORING REPORT  
JULY 2004**

**City of Patterson Wastewater Treatment Plant  
Groundwater Monitoring Program**

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

*Prepared by:*



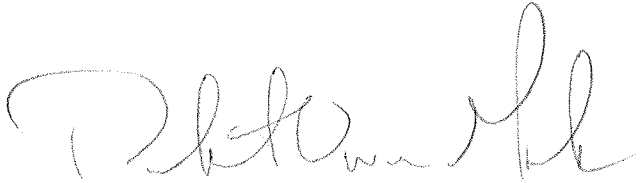
**LEE & RO, Inc.**  
11060 White Rock Road, Suite 100  
Rancho Cordova, California 95670-6046

*Prepared for:*

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

July 2004

**REPORT PREPARED BY:**



8/10/4

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Robert O. 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 five monitoring wells.

The wells were constructed in March 2001 and samples have been collected on a quarterly basis since April 2001. This report presents the results of the quarterly samples collected July 8, 2004. All of the wells were sampled on July 8, 2004.

## 2. GROUNDWATER MONITORING WELLS

Two upgradient wells (MW-1 and MW-2) and three downgradient wells (MW-3, MW-4, and MW-5) are located at the plant site.

The wells have 15 feet of screen per well. The total depths range from 28 to 30 feet below ground surface (bgs). A summary of well characteristics is provided in **Table 1**.

	MW-1	MW-2	MW-3	MW-4	MW-5
Well Depth (ft)	28	29	28	30	29
Completion Type	Below	Above	Above	Above	Above
Slot Size (inch)	0.01	0.02	0.02	0.01	0.02
Elevation of Slab Surface	55.58	57.93	52.18	56.99	53.79
Elevation of Top of Casing	54.93	59.68	53.80	58.58	55.21
Northing	63170.83	65646.16	63426.28	64632.54	65640.07
Easting	27600.60	26971.88	29651.79	28630.20	28819.87

## 3. GROUNDWATER ELEVATIONS

Groundwater elevations measured to date are summarized in **Figure 1**. Groundwater elevations measured in 2004 are presented in **Table 2** and contoured on the map presented in **Figure 2**.

<b>Table 2</b> <b>2004 Groundwater Elevations</b> <b>Patterson WWTP Monitoring Wells</b>					
	MW-1	MW-2	MW-3	MW-4	MW-5
Water Elevation 7/8/04 (ft msl)	37.61	38.82	33.76	34.44	33.60

**4. MONITORING WELL SAMPLING**

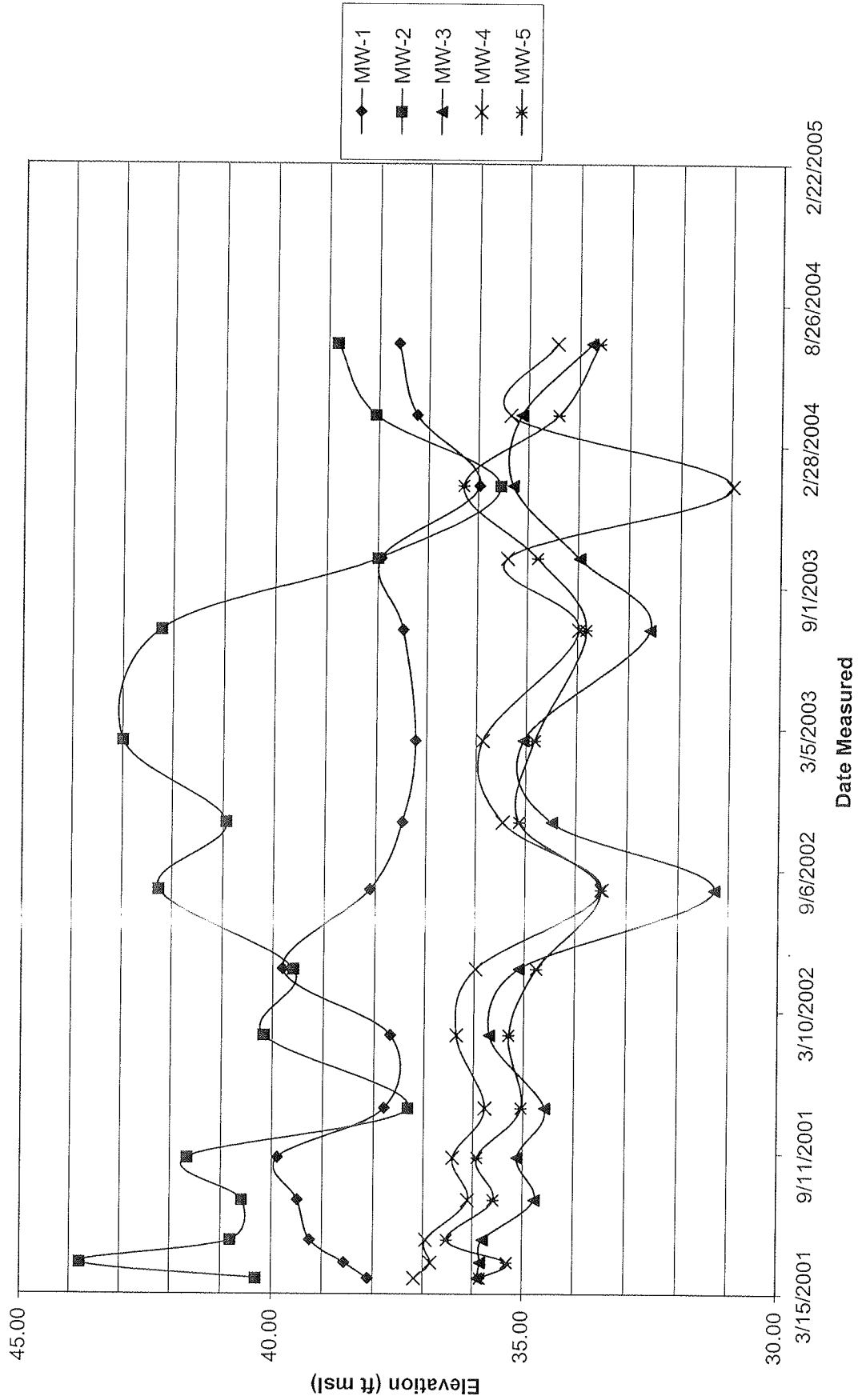
The wells were purged and sampled according to the procedures specified in the workplan. Sampling was conducted by Richard Chrun of GeoAnalytical Laboratories under the general supervision of LEE & RO, Inc. Purge logs are presented in **Appendix A**.

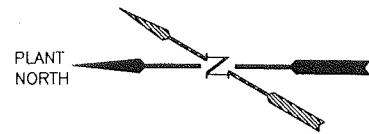
**5. GROUNDWATER QUALITY RESULTS**

The samples were analyzed by GeoAnalytical Laboratories, a state-certified environmental laboratory. Laboratory reports for the July 2004 quarterly samples are presented in **Appendix B**. Analytical results for the 2004 quarterly samples are presented in **Table 3**.

<b>Table 3</b> <b>Groundwater Analytical Results</b> <b>April 2004</b>						
	Unit	MW-1	MW-2	MW-3	MW-4	MW-5
PH	Std. Units	6.9	6.4	6.6	6.6	6.6
Electrical Conductivity	Umhos/cm	2270	3570	4990	2960	3100
Total Dissolved Solids	mg/l	1280	1850	2630	1420	1540
Nitrate as Nitrogen	mg/l	10	7.3	13	ND	12
Total Coliform Organisms	MPN/100	<2	<2	<2	<2	<2

Figure 1  
Groundwater Elevations in Patterson WWTP Monitoring Wells





SCALE: 1"=400'

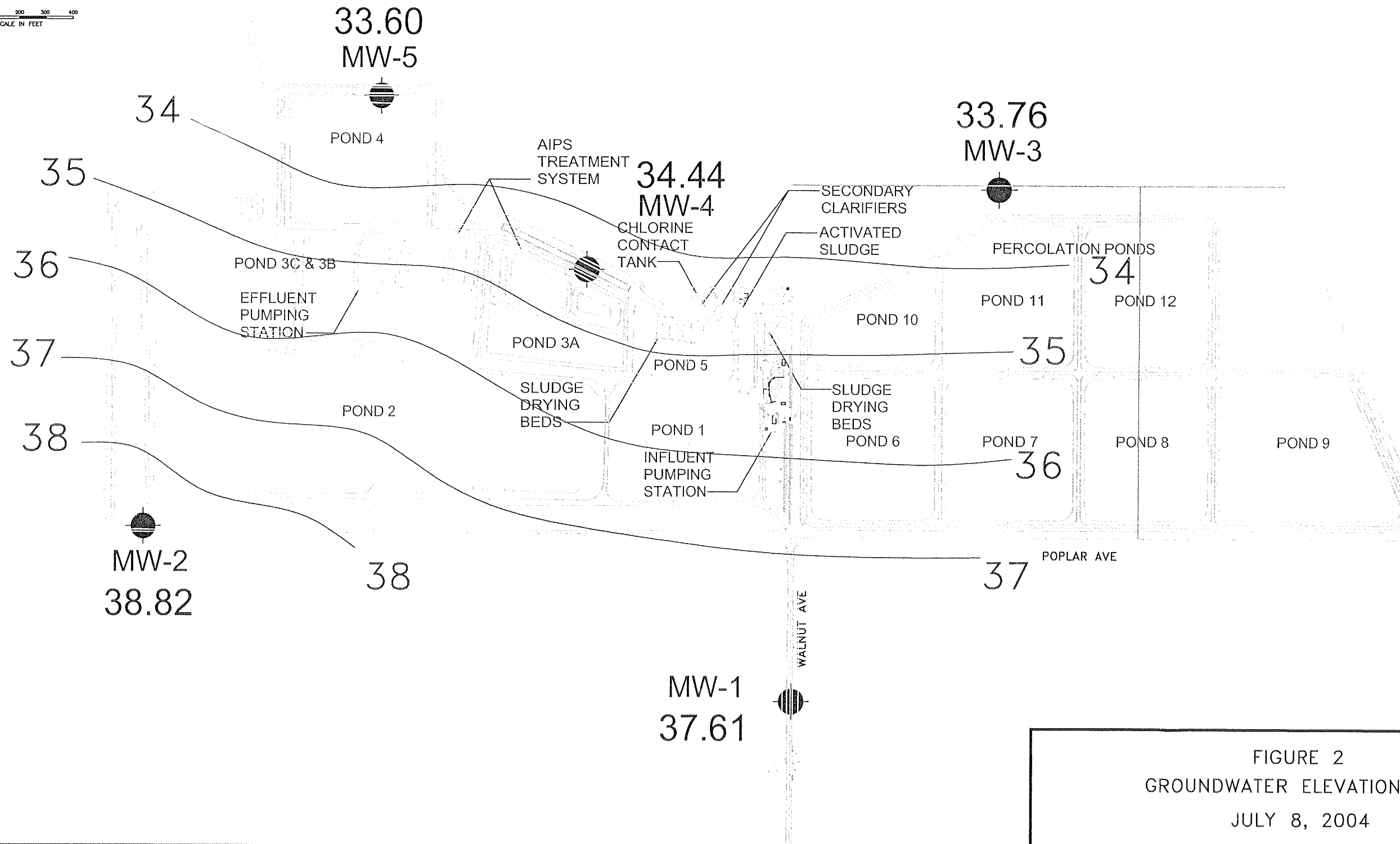
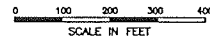


FIGURE 2  
GROUNDWATER ELEVATION MAP  
JULY 8, 2004

**APPENDIX A  
PURGE LOGS**



Report # Q190-20 Field Log / Groundwater Sampling Form Date 7-8-04  
 Client City of Patterson Well Name MW-1  
 Project Name \_\_\_\_\_ Well Type:  Monitor  Extraction  Other \_\_\_\_\_  
 Consultant \_\_\_\_\_  
 Proj. Manager Rich Chrun/Ray Azevedo Sampler Rich & Ray

**WELL PURGING**

**Purge Method**  
 Bailer - Type \_\_\_\_\_  
 Pump - Type \_\_\_\_\_  
 Other \_\_\_\_\_

**Purge Volume**  
 Well Casing Diameter:  2 - inch  4 - inch  other \_\_\_\_\_  
 Well Volume Purged:  3 volumes  4 volumes  other \_\_\_\_\_

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

Total Well Depth 27.5  
 Depth to Water 17.32  
 Water Column Length 10.18

10.18 x 0.6527 x 3 = 19.93  
 Water column length Multiplier No. Volumes CALCULATED Purge Vol.

19.93 / 10 = 1.99  
 Purge Vol Purge Rate TOTAL PURGE TIME

1.99 x 3 = 5.97  
 Total Purge Time # Volumes PURGE TIME/VOL.

Actual Values	
Purge Time /Vol.	<u>3</u>
X	
No. Volumes	<u>3</u>
=	
Total Purge Time	<u>3</u>
X	
Purge Rate	<u>10</u>
=	
Actual Purge Vol.	<u>30</u>

**GROUNDWATER PARAMETER MEASUREMENTS**

	Time	Gallons	pH	Conductivity µmhos/cm	Temp.		Turbidity NTU	Color / Odor
					<input type="checkbox"/> deg C	<input type="checkbox"/> deg F		
Start	<u>1:00</u>	-	-	-	-	-	-	-
Vol 1	<u>1:01</u>	<u>10</u>	<u>7.31</u>	<u>1938</u>		<u>26.3</u>		<u>clear</u>
Vol 2	<u>1:02</u>	<u>20</u>	<u>7.45</u>	<u>1849</u>		<u>24.4</u>		<u>↓</u>
Vol 3	<u>1:03</u>	<u>30</u>	<u>7.49</u>	<u>1841</u>		<u>23.1</u>		
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
<u>1:03</u>	<u>MW-1</u>					<u>VOA, Glass</u>	<u>5</u>	<u>HCL, 4°C</u>

COMMENTS/sampling: \_\_\_\_\_

Report # \_\_\_\_\_ **Field Log / Groundwater Sampling Form** Date 7-8-04  
 Client City of Patterson Well Name MW 2  
 Project Name Quarterly Well Type:  Monitor  Extraction  Other \_\_\_\_\_  
 Consultant \_\_\_\_\_  
 Proj. Manager Rich Chrun/Ray Azevedo Sampler Rich & Ray

**WELL PURGING**

**Purge Method**  
 Bailer - Type \_\_\_\_\_  
 Pump - Type \_\_\_\_\_  
 Other \_\_\_\_\_

**Purge Volume**  
 Well Casing Diameter  2 - inch  4 - inch  other \_\_\_\_\_  
 Well Volume Purged  3 volumes  4 volumes  other \_\_\_\_\_

**Multiplier**  

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

Total Well Depth 31.4  
 Depth to Water 20.86  
 Water Column Length 10.72

$10.72 \times 0.1632 \times 3 = 5.25$   
 Water column length Multiplier No. Volumes CALCULATED Purge Vol.

$5.25 / 2.5 = 2.10$   
 Purge Vol Purge Rate TOTAL PURGE TIME

$2.10 / 3 = .70$   
 Total Purge Time # Volumes PURGE TIME/VOL.

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

**GROUNDWATER PARAMETER MEASUREMENTS**

	Time	Gallons	pH	Conductivity µmhos/cm	Temp. <input type="checkbox"/> deg C <input type="checkbox"/> deg F	Turbidity NTU	Color / Odor
Start	1:29	-	-	-	-	-	-
Vol 1	1:30	2.5	7.25	2.77 MS	24.2		CLEAR
Vol 2	1:51	5	7.17	2.82 MS	22.5		
Vol 3	1:32	7.5	7.20	2.86 MS	22.0		
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
1:32	MW-2					VOA, Glass	5	HCL, 4°C

COMMENTS/sampling: \_\_\_\_\_

Report # \_\_\_\_\_ **Field Log / Groundwater Sampling Form** Date 7-8-04  
 Client City of Patterson Well Name MW-3  
 Project Name Quarterly Well Type:  Monitor  Extraction  Other \_\_\_\_\_  
 Consultant \_\_\_\_\_  
 Proj. Manager Rich Chrun/Ray Azevedo Sampler Rich & Ray

**WELL PURGING**

**Purge Method**  
 Bailer - Type \_\_\_\_\_  
 Pump - Type \_\_\_\_\_  
 Other \_\_\_\_\_

**Purge Volume**  
 Well Casing Diameter  2 - inch  
 4 - inch  
 other \_\_\_\_\_  
 Well Volume Purged  3 volumes  
 4 volumes  
 other \_\_\_\_\_

Multiplier	
Well Casing I.D. (in.)	Gal/Ft.
<u>2.0</u>	0.1632
4.0	0.6527
6.0	1.4688

Total Well Depth 31.0  
 Depth to Water 20.04  
 Water Column Length 10.96

10.96 x .1632 x 3 = 5.37  
 Water column length Multiplier No. Volumes CALCULATED. Purge Vol.

5.37 / 2.5 = 2.15  
 Purge Vol Purge Rate TOTAL PURGE TIME

2.15 / 3 = .72  
 Total Purge Time # Volumes PURGE TIME/VOL.

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

**GROUNDWATER PARAMETER MEASUREMENTS**

	Time	Gallons	pH	Conductivity µmhos/cm	Temp. <input type="checkbox"/> deg C <input type="checkbox"/> deg F	Turbidity NIU	Color / Odor
Start	<u>2:05</u>	-	-	-	-	-	-
Vol 1	<u>2:06</u>	<u>2.5</u>	<u>7.4</u>	<u>1781 us</u>	<u>24.6</u>		<u>Clear</u>
Vol 2	<u>2:07</u>	<u>5</u>	<u>7.3</u>	<u>1814 us</u>	<u>22.9</u>		<u>L</u>
Vol 3	<u>2:08</u>	<u>7.5</u>	<u>7.2</u>	<u>1809 us</u>	<u>23.2</u>		
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
<u>2:08</u>	<u>MW-3</u>					<u>VOA, Glass</u>	<u>5</u>	<u>HCL, 4°C</u>

COMMENTS/sampling: \_\_\_\_\_

Report # \_\_\_\_\_ Date 7-8-04  
 Client City of Patterson  
 Project Name Quantek Well Name MW-4  
 Consultant \_\_\_\_\_ Well Type:  Monitor  Extraction  Other \_\_\_\_\_  
 Proj. Manager Rich Chun/Ray Azevedo Sampler Rich & Ray

**WELL PURGING**

**Purge Method**  
 Bailer - Type \_\_\_\_\_  
 Pump - Type \_\_\_\_\_  
 Other \_\_\_\_\_

**Purge Volume**  
 Well Casing Diameter:  2 - inch  4 - inch  other \_\_\_\_\_  
 Well Volume Purged:  3 volumes  4 volumes  other \_\_\_\_\_

Well Casing I.D. (in.)	Multiplier	Gal/Ft.
<u>2.0</u>	3	0.1632
4.0		0.6527
6.0		1.4686

Total Well Depth 31.0  
 Depth to Water 24.14  
 Water Column Length 6.86

$6.86 \times 16.32 \times 3 = 2.72$   
 Water column length Multiplier No. Volumes CALCULATED Purge Vol.

$2.72 / 2.5 = 1.08$   
 Purge Vol Purge Rate TOTAL PURGE TIME

$1.08 \times 3 = 3.24$   
 Total Purge Time # Volumes PURGE TIME/VOL.

**Actual Values**

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

**GROUNDWATER PARAMETER MEASUREMENTS**

	Time	Gallons	pH	Conductivity $\mu$ mhos/cm	Temp. <input type="checkbox"/> deg C <input type="checkbox"/> deg F	Turbidity NIU	Color / Odor
Start	1:53	-	-	-	-	-	-
Vol 1	1:54	2.5	6.92	1937 $\mu$ S	24.0		
Vol 2	1:55	5	6.94	1952 $\mu$ S	22.5		clear
Vol 3	1:56	7.5	6.90	1963 $\mu$ S	21.7		
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
1:56	MW-4					VOA, Glass	5	HCL, 4°C

COMMENTS/sampling: \_\_\_\_\_

Report # \_\_\_\_\_ **Field Log / Groundwater Sampling Form** Date 7-8-04  
 Client City of Patterson Well Name MW-5  
 Project Name Quarterly Well Type:  Monitor  Extraction  Other \_\_\_\_\_  
 Consultant \_\_\_\_\_  
 Proj. Manager Rich Chrun/Ray Azevedo Sampler Rich & Ray

**WELL PURGING**

<b>Purge Method</b> <input type="checkbox"/> Bailer - Type _____ <input type="checkbox"/> Pump - Type _____ <input type="checkbox"/> Other _____	<b>Multiplier</b> <table border="1" style="margin: auto;"> <tr><th colspan="2">Well Casing</th></tr> <tr><th>I.D. (in.)</th><th>Gal/Ft.</th></tr> <tr><td><u>2.0</u></td><td>0.1632</td></tr> <tr><td>4.0</td><td>0.6527</td></tr> <tr><td>6.0</td><td>1.4686</td></tr> </table>	Well Casing		I.D. (in.)	Gal/Ft.	<u>2.0</u>	0.1632	4.0	0.6527	6.0	1.4686	<b>Purge Volume</b> Well Casing Diameter <input checked="" type="checkbox"/> 2 - inch <input type="checkbox"/> 4 - inch <input type="checkbox"/> other _____	Well Volume Purged <input checked="" type="checkbox"/> 3 volumes <input type="checkbox"/> 4 volumes <input type="checkbox"/> other _____
Well Casing													
I.D. (in.)	Gal/Ft.												
<u>2.0</u>	0.1632												
4.0	0.6527												
6.0	1.4686												

Total Well Depth 31.0  
 Depth to Water 21.01  
 Water Column Length 9.39

9.39 x .1632 x 3 = 4.59  
 Water column length Multiplier No. Volumes CALCULATED Purge Vol.

4.59 / 2.5 = 1.83  
 Purge Vol Purge Rate TOTAL PURGE TIME

1.83 / 3 = .61  
 Total Purge Time # Volumes PURGE TIME/VOL.

**Actual Values**

Purge Time /Vol. 1  
 X  
 No. Volumes 5  
 =  
 Total Purge Time 3  
 X  
 Purge Rate 2.5  
 =  
 Actual Purge Vol. 7.5

**GROUNDWATER PARAMETER MEASUREMENTS**

	Time	Gallons	pH	Conductivity µmhos/cm	Temp.		Turbidity NTU	Color / Odor
					<input type="checkbox"/> deg C	<input type="checkbox"/> deg F		
Start	<u>1:43</u>	-	-	-	-	-	-	-
Vol 1	<u>1:44</u>	<u>2.5</u>	<u>6.94</u>	<u>2.47 MS</u>	<u>23.8</u>			<u>Clear</u>
Vol 2	<u>1:45</u>	<u>5</u>	<u>6.82</u>	<u>2.46 MS</u>	<u>22.7</u>			<u>↓</u>
Vol 3	<u>1:46</u>	<u>7.5</u>	<u>6.79</u>	<u>2.44 MS</u>	<u>21.8</u>			
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
<u>1:46</u>	<u>MW-5</u>					<u>VOA, Glass</u>	<u>5</u>	<u>HCL, 4°C</u>

COMMENTS/sampling: \_\_\_\_\_

**APPENDIX B**  
**LABORATORY ANALYTICAL REPORT**

# GeoAnalytical Laboratories, Inc.

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

## CERTIFICATE OF ANALYSIS

Report # Q190-26

Date: 7/15/04

City of Patterson  
33 So. Del Puerto  
Patterson CA 95363

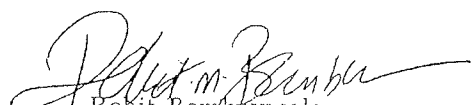
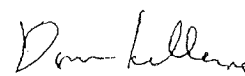
Project: Quarterly Monitoring Wells

Date Rec'd: 7/08/04  
Date Started: 7/08/04  
Date Completed: 7/15/04

PO#

Date Sampled: 7/08/04  
Time:  
Sampler: R. Chrun (Geo)

Sample ID	Lab ID	RL	Method	Analyte	Results	Units
MW-1	Q304603	NA	150.1	pH	6.9	Std. Units
		1.0	120.1	Electro Conductivity (EC)	2270	µmhos/cm
		10	160.1	TDS (Filterable Residue)	1280	mg/L
		0.25	300.0	Nitrate as N	10	mg/L
MW-2	Q304604	NA	150.1	pH	6.4	Std. Units
		1.0	120.1	Electro Conductivity (EC)	3570	µmhos/cm
		10	160.1	TDS (Filterable Residue)	1850	mg/L
		0.25	300.0	Nitrate as N	7.3	mg/L
MW-3	Q304605	NA	150.1	pH	6.6	Std. Units
		1.0	120.1	Electro Conductivity (EC)	4990	µmhos/cm
		10	160.1	TDS (Filterable Residue)	2630	mg/L
		0.25	300.0	Nitrate as N	13	mg/L
MW-4	Q304606	NA	150.1	pH	6.6	Std. Units
		1.0	120.1	Electro Conductivity (EC)	2960	µmhos/cm
		10	160.1	TDS (Filterable Residue)	1410	mg/L
		0.25	300.0	Nitrate as N	ND	mg/L
MW-5	Q304607	NA	150.1	pH	6.6	Std. Units
		1.0	120.1	Electro Conductivity (EC)	3100	µmhos/cm
		10	160.1	TDS (Filterable Residue)	1540	mg/L
		0.25	300.0	Nitrate as N	12	mg/L

# GeoAnalytical Laboratories, Inc.

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

## CERTIFICATE OF ANALYSIS

Report # Q190-26

Date: 7/15/04

City of Patterson  
33 So. Del Puerto  
Patterson CA 95363


Project: Quarterly Monitoring Wells

Date Rec'd: 7/08/04  
Date Started: 7/08/04  
Date Completed: 7/15/04

PO#

Date Sampled: 7/08/04  
Time:  
Sampler: R. Chrun (Geo)

Sample ID	Lab ID	RL	Method	Analyte	Results	Units
Mitigation Well	Q304608	NA	150.1	pH	6.9	Std. Units
		1.0	120.1	Electro Conductivity (EC)	2970	µmhos/cm
		10	160.1	TDS (Filterable Residue)	1520	mg/L
		0.25	300.0	Nitrate as N	4.6	mg/L

  
Rohit Bombhawali



# GeoAnalytical Laboratories, Inc.

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

## CERTIFICATE OF ANALYSIS

Report # Q190-26

Date: 7/13/04

City of Patterson  
33 So. Del Puerto  
Patterson

Project: Quarterly Monitoring Wells


Date Rec'd: 7/08/04  
Date Started: 7/08/04  
Date Completed: 7/11/04

CA 95363

PO#

Date Sampled: 7/08/04  
Time:  
Sampler: R. Chrun (Geo)

Sample ID	Lab ID	RL	Method	Analyte	Results	Units
MW-1	Q304603	2	9221B,C	Total Coliform	<2	MPN/100ml
MW-2	Q304604	2	9221B,C	Total Coliform	<2	MPN/100ml
MW-3	Q304605	2	9221B,C	Total Coliform	<2	MPN/100ml
MW-4	Q304606	2	9221B,C	Total Coliform	<2	MPN/100ml
MW-5	Q304607	2	9221B,C	Total Coliform	<2	MPN/100ml
Mitigation Well	Q304608	2	9221B,C	Total Coliform	<2	MPN/100ml

  
Rohit Bombaywala

  
Donna Keller

# GeoAnalytical Laboratories, Inc.

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

## QC REPORT

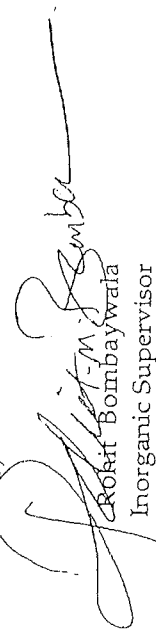
Report# Q190-26

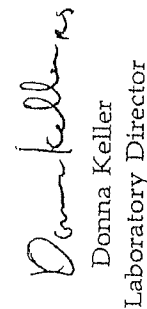
City of Patterson  
San Joaquin County  
Patterson

CA 95363

Analyte	Method	Batch #	Dates Analyzed	Orig.	Dupl.	MS %Rec	MSD %Rec	RPD	LCS %Rec	Blank	Comments
Conductivity (EC)	150.1	I04410	7/12/04	7.5	7.5			0.0		NA	
Filterable Residue	120.1	I04451	7/14/04	2270	2270			0.0		NA	
As N	160.1	I04531	7/14/04-7/15/04	1280	1270			0.8		ND	
	300.0	I04362	7/08/04			98.1	96.5	0.5	94.8	ND	

CS/LCSD (see comments)

  
Rohit Bombaywala  
Inorganic Supervisor

  
Donna Keller  
Laboratory Director

Certification # 1157

# GeoAnalytical Laboratories, Inc.

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## QC REPORT

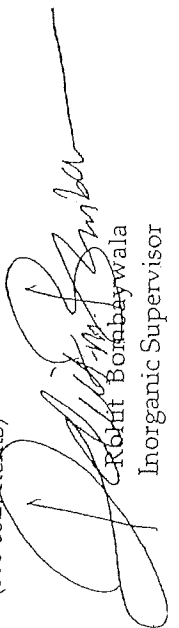
Report# Q190-26

City of Patterson  
3 So. Del Puerto  
Patterson

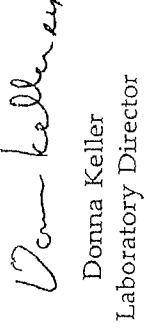
CA 95363

nalyte	Method	Batch #	Dates Analyzed	Orig.	Dupl.	MS %Rec	MSD %Rec	RPD	LCS %Rec Blank	Comments
Coliform	9221B/C	B00354	7/08/04-7/11/04	8	8			0.0	<2	

LCS/LCSD (see comment(s))

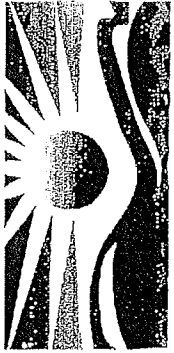


Robert Bombaywala  
Inorganic Supervisor



Donna Keller  
Laboratory Director

Certification # 1157



# GeoAnalytical Laboratories, Inc.

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Modesto, CA 95351  
Phone: (209) 572-0900  
Fax: (209) 572-0916

Lab Report # 2190-26  
Regulatory  Yes  No CC:  Yes  No  
Regulator: \_\_\_\_\_

Phone: (209) 892-8886  
Fax: (209) 892-8993  
Original To: Joel Cookrell  
C.C. To: Exed Bob Goodwin 916-631-0812

CHAIN OF CUSTODY  
 EDF  EDT  
 FIELD LOGS

Client: City of Patterson  
Address: 333 South Del Puerto Ave.  
City: Patterson, CA Zip: 95363

Project ID	Sampled By (Print Name) (Signature)	Date	Time	Sample type	Grab	Comp	Matrix	Sample ID	Container		No. Of Containers	Remarks	Lab Use Only	
									Type	Size			Lab ID #	Preservative
	<u>Richard Chron</u>	7-8-04	1:03	WW	X		WW	MW-1	P	1-litre/100	2			
			1:32	WW	X		WW	MW-2	P	1-litre/100	2			
			2:05	WW	X		WW	MW-3	P	1-litre/100	2			
			1:56	WW	X		WW	MW-4	P	1-litre/100	2			
			1:46	WW	X		WW	MW-5	P	1-litre/100	2			
			1:35	WW	X		WW	Mitigation Well	P	2-litre/100	2			

Remarks

Relinquished by (Signature) Richard Chron Date 7-8-04 Time 2:45 Received by (Signature) Luella Parulla Date 7/8/04 Time 2:45

Relinquished by (Signature) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ Received by (Signature) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Preservative:  1 4°C  2 HCL  3 NaOH  4 Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>  5 -HNO<sub>3</sub>  6 -H<sub>2</sub>SO<sub>4</sub>  7 Other \_\_\_\_\_

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

Bailers \_\_\_\_\_ 55 Gallon Drums \_\_\_\_\_ Pump Truck  Time 5 Days Mileage 67 miles

Approved By: \_\_\_\_\_