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LETTER OF TRANSMITTAL

TO:

Ms. Susan Hugo
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway
Alameda, California 94501

DATE: October 19, 1994
PROJECT 4055 Hubbard Street
SCI JOB NUMBER: 609.001

WE ARE SENDING YOU:

1 copies

- ☐ of our final report
- ☐ a draft of our report
- ☐ a Service Agreement
- ☐ a proposed scope of services
- ☐ specifications
- ☐ grading/foundation plans
- ☐ soil samples/groundwater samples
- ☐ an executed contract
- ☒ Copy of letter package which was previously mailed to you.

- ☐ if you have any questions, please call
- ☐ for your review and comment
- ☐ please return an executed copy
- ☐ for geotechnical services
- ☐ with our comments
- ☐ with Chain of Custody documents
- ☒ for your use
- ☐ _____
- ☐ _____

REMARKS:

COPIES TO:

BY: Jeriann Alexander
Jeriann Alexander

■ Subsurface Consultants, Inc.

171 12th Street • Suite 201 • Oakland, California 94607 • Telephone 510-268-0461 • FAX 510-268-0137

R. William Rudolph, Jr., PE
Thomas E. Cundey, PE
Jeriann N. Alexander, PE

September 16, 1994
SCI 609.001

Ms. Susan Hugo
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway
Alameda, California 94501

Groundwater Monitoring Program
4055 Hubbard Street
Oakland, California

Dear Ms. Hugo:

This letter transmits the results of the August 1994 groundwater monitoring event conducted at the referenced site. Three wells (MW-1, MW-2 and MW-3) have been monitored for 5 consecutive quarters. Monitoring data suggest that the water in the tank vicinity has not been significantly impacted by previous tank releases. Further the data indicates that groundwater is not being impacted by oil and grease, and BTEX.

Given that (1) native soils do not appear to have been impacted by previous tank release, (2) the contaminated fill is likely associated with past railroad activities, and (3) impacts to groundwater are not solely the result of previous tank releases, we request that the groundwater monitoring program be revised. As such we propose that the program include quarterly monitoring of TVH and TEH in the downgradient wells (MW-1 and MW-3) and annual monitoring of TVH and TEH in the upgradient well (MW-2).

Please issue a written response to this request.

Yours very truly,

Subsurface Consultants, Inc.

Jeriann N. Alexander
Civil Engineer 40469 (expires 3/31/95)

JNA:sld

■ Subsurface Consultants, Inc.

171 12th Street • Suite 201 • Oakland, California 94607 • Telephone 510-268-0461 • FAX 510-268-0137

R. William Rudolph, Jr., PE
Thomas E. Cundey, PE
Jeriann N. Alexander, PE

September 16, 1994
SCI 609.001

Ms. Marianne Robison
Buttner Properties
600 West Grand Avenue
Oakland, California 94612

Quarterly Groundwater Monitoring
August 1994 Event
4055 Hubbard Street
Oakland, California

Dear Ms. Robison:

This letter presents quarterly groundwater monitoring results for the referenced site. Groundwater monitoring has been performed at the request of the Alameda County Health Care Services Agency. The location of the site is presented on Plate 1.

Groundwater Sampling

On August 26, 1994, Wells MW-1, MW-2 and MW-3 were sampled. In general, the groundwater monitoring event consisted of (1) measuring groundwater levels using an electric well sounder, (2) checking for free product, (3) purging water from each well until pH, conductivity and temperature had stabilized (approximately 3 well volumes), and (4) after the wells had recovered to at least 80 percent of their initial level, sampling the wells with new disposable bailers. The samples were retained in glass containers pre-cleaned by the supplier in accordance with EPA protocol. The containers were placed in an ice filled cooler and remained iced until delivery to the analytical laboratory. Chain-of-Custody documents accompanied the samples to the laboratory.

Analytical Testing

Analytical testing was performed by Curtis and Tompkins, Ltd., a laboratory certified by the State of California Department of Health Services for hazardous waste and water testing. A sample from each well was analyzed for the following:

1. Total volatile hydrocarbons (TVH), sample preparation and analysis using EPA Methods 5030 (purge and trap) and 8015 modified (gas chromatograph coupled to a flame ionization detector),

2. Total extractable hydrocarbons (TEH), sample preparation and analysis using EPA Methods 3550 (solvent extraction) and 8015 modified (gas chromatograph coupled to a flame ionization detector),

3. Benzene, toluene, ethylbenzene and xylene (BTEX), sample preparation and analysis using EPA methods 5030 (purge and trap) and 8020 (gas chromatograph coupled to a photo-ionization detector), and

4. Total oil and grease (TOG), sample preparation and analysis using SMWW 17:5520 B&F.

A summary of the current and previous analytical test results are presented in Table 1. The groundwater level data are presented in Table 2. Well sampling forms, analytical test reports, and Chain-of-Custody documents are attached.

Conclusions

Based on the groundwater data presented in Table 1, the groundwater gradient remains generally consistent with previous measurements. The gradient is relatively flat (0.5%) and tends toward the west. The groundwater gradient and flow contours for this event are shown on Plate 1.

Concentrations of volatile and extractable range hydrocarbons are present in all three wells. Since the hydrocarbon concentrations are similar in each well, including the upgradient well, we judge the contamination is indicative of an upgradient source. No free product was observed during this event.

Ongoing Monitoring

The project wells have been monitored for 5 consecutive quarters during which oil and grease, and BTEX have not been detected. Further, it appears that the contamination detected is more indicative of an upgradient source and not the result of previous releases. As such, SCI will petition the ACHCSA to revise the monitoring program prior to the next sampling event which is scheduled for November 1994.

If you have any questions, please call.

Yours very truly,

Subsurface Consultants, Inc.

Jeriann N. Alexander
Civil Engineer 40469 (expires 3/31/95)

JNA:RWR:sld

Attachments: Table 1 - Contaminant Concentrations in Groundwater
Table 2 - Groundwater Elevation Data
Plate 1 - Site Plan
Analytical Test Report
Chain-of-Custody Form

Distribution:

1 copy: Ms. Marianne Robison
Buttner Properties
600 West Grand Avenue
Oakland, California 94612

1 copy: Ms. Susan Hugo
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway
Alameda, California 94501

Table 1.
Contaminant Concentrations in Water

Sample Designation	Date	TVH (ug/l)	TEH (ug/l)	TOG (mg/l)	Benzene (ug/l)	Toluene (ug/l)	Xylene (ug/l)	Ethyl-benzene (ug/l)
MW-1	06/02/93	160	<50	<5	<0.5	<0.5	<0.5	<0.5
	09/15/93	120	<50	<5	<0.5	<0.5	<0.5	<0.5
	12/23/93	120	310	<5	<1.5	<0.5	<0.5	<0.5
	04/05/94	130	<50	<5	<0.5	<0.5	<0.5	<0.5
	08/26/94	74	560	<5	<0.5	<0.5	<0.5	<0.5
MW-2	06/02/93	210	150	<5	<0.5	<0.5	<0.5	<0.5
	09/15/93	150	50	<5	<0.5	<0.5	<0.5	<0.5
	12/23/93	140	220	<5	<0.5	<0.5	<0.5	<0.5
	04/05/94	150	<50	<5	<0.5	<0.5	<0.5	<0.5
	08/26/94	71	590	<5	<0.5	<0.5	<0.5	<0.5
MW-3	06/02/93	280	170	<5	<0.5	<0.5	<0.5	<0.5
	09/15/93	180	<50	<5	<0.5	<0.5	<0.5	<0.5
	12/23/93	190	250	<5	<0.5	<0.5	<0.5	<0.5
	04/05/94	240	280	<5	<0.5	<0.5	<0.5	<0.5
	08/26/94	130	520	<5	<0.5	<0.5	<0.5	<0.5

TVH = Total volatile hydrocarbons
TEH = Total extractable hydrocarbons
TOG = Total oil and grease
mg/l = Milligrams per liter = parts per million
ug/l = Micrograms per liter = parts per billion
<0.5 = Chemical not present at a concentration greater than the detection limit stated

Table 2. GROUNDWATER ELEVATION DATA

Well Number	TOC Elev[1] (feet)	Date	Groundwater Depth[2] (feet)	Groundwater Elevation (feet)
MW-1	3.64	06/01/93	3.63	0.01
		09/15/93	4.47	-0.83
		12/23/93	3.47	0.17
		04/05/94	3.85	-0.21
		08/26/94	4.29	-0.65
MW-2	4.95	06/01/93	3.65	1.30
		09/15/93	4.90	0.05
		12/23/93	3.45	1.50
		04/05/94	4.01	0.94
		08/26/94	4.72	0.23
MW-3	3.61	06/01/93	3.29	0.32
		09/15/93	4.32	-0.71
		12/23/93	3.32	0.29
		04/05/94	3.74	-0.13
		08/26/94	4.30	-0.69

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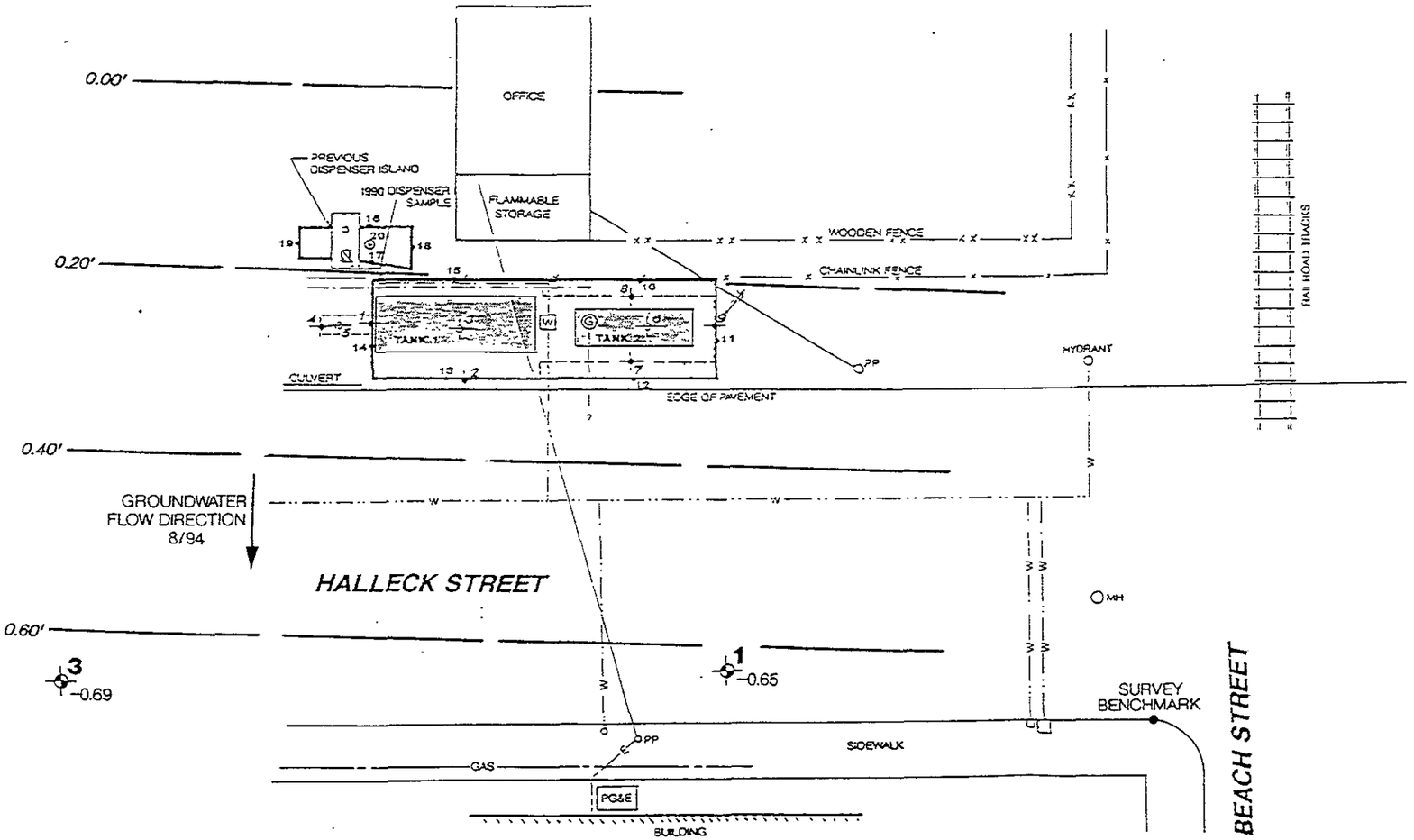
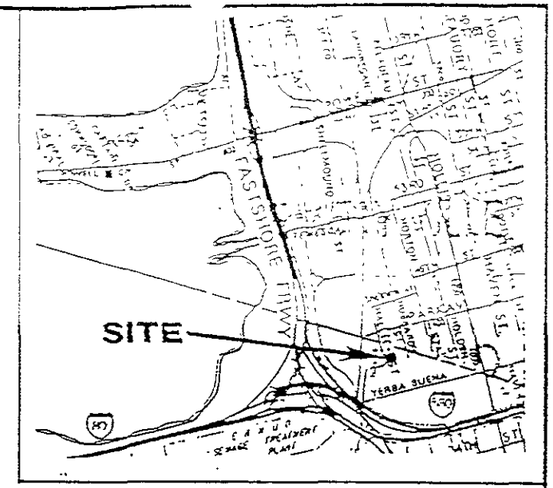
1 City of Oakland datum
2 Measured below TOC.





VICINITY MAP

- 1990 SIDEWALL SAMPLE
- 1990 BOTTOM SAMPLE
- PREVIOUS TANK
- LIMIT OF 1990 EXCAVATION
- W WATER VALVE
- G GAS VALVE
- G GAS LINE
- W WATER LINE
- MH MANHOLE
- PP POWER POLE
- 1992 SIDEWALL SAMPLE
- 1992 BOTTOM SAMPLE
- PREVIOUS DISPENSER
- LIMIT OF 1992 EXCAVATION
- WELL LOCATION
- GROUNDWATER ELEVATION CONTOURS (feet)

APPROXIMATE SCALE (feet)
0 15 30

N

SITE PLAN

Subsurface Consultants

4055 HUBBARD STREET – OAKLAND, CA

JOB NUMBER	DATE	APPROVED	PLATE
609.001	6/7/93		

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

Subsurface Consultants
171 12th Street
Suite 201
Oakland, CA 94608

Date: 08-SEP-94
Lab Job Number: 117099
Project ID: 609.001
Location: Hubbard Tank

Reviewed by: _____

Reviewed by: _____

LABORATORY NUMBER: 117099
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 609.001
LOCATION: 4055 HUBBARD ST.

DATE SAMPLED: 08/26/94
DATE RECEIVED: 08/26/94
DATE ANALYZED: 08/31/94
DATE REPORTED: 09/08/94

Total Volatile Hydrocarbons with BTXE in Aqueous Solutions
TVH by California DOHS Method/LUFT Manual October 1989
BTXE by EPA 5030/8020

LAB ID	SAMPLE ID	TVH AS GASOLINE (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)
117099-1	MW-1	74*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
117099-2	MW-2	71*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
117099-3	MW-3	130*	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
117099	METHOD BLANK	ND(50)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)

* Sample chromatogram does not resemble gasoline standard. Single peaks are present in the samples.

ND = Not detected at or above reporting limit; Reporting limit indicated in parentheses.

QA/QC SUMMARY

RPD, %	19
RECOVERY, %	96

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 117099
CLIENT: SUBSURFACE CONSULTANT, INC.
PROJECT ID: 609.001
LOCATION: 4055 HUBBARD ST.

DATE SAMPLED: 08/26/94
DATE RECEIVED: 08/26/94
DATE EXTRACTED: 08/30/94
DATE ANALYZED: 09/07/94
DATE REPORTED: 09/08/94

Extractable Petroleum Hydrocarbons in Aqueous Solutions
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (ug/L)	DIESEL RANGE (ug/L)	REPORTING LIMIT (ug/L)
117099-1	MW-1	**	560 *	50
117099-2	MW-2	**	590 *	50
117099-3	MW-3	**	520 *	50
117099	METHOD BLANK	ND	ND	50

*Sample chromatogram does not resemble diesel standard.

** Kerosene range not reported due to overlap of hydrocarbon ranges.

ND = Not detected at or above reporting limit. Reporting limit applies to all analytes.

QA/QC SUMMARY:

RPD, %	6
RECOVERY, %	109

Curtis & Tompkins, Ltd.

Client: Subsurface Consultants

Laboratory Login Number: 117099

Project Name: Hubbard Tank
Project Number: 609.001

Report Date: 08 September 94

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) METHOD: SMWW 17:5520BF

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
117099-001	MW-1	Water	26-AUG-94	26-AUG-94	31-AUG-94	ND	mg/L	5	TR	16041
117099-002	MW-2	Water	26-AUG-94	26-AUG-94	31-AUG-94	ND	mg/L	5	TR	16041
117099-003	MW-3	Water	26-AUG-94	26-AUG-94	31-AUG-94	ND	mg/L	5	TR	16041

ND = Not Detected at or above Reporting Limit (RL).

Curtis & Tompkins, Ltd.

QC Batch Report

Client: Subsurface Consultants
Project Name: Hubbard Tank
Project Number: 609.001

Laboratory Login Number: 117099
Report Date: 08 September 94

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **QC Batch Number: 16041**

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
BLANK	ND	5	mg/L	SMWW 17:5520BF	31-AUG-94

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	84%	SMWW 17:5520BF	31-AUG-94
BSD	88%	SMWW 17:5520BF	31-AUG-94

		Control Limits
Average Spike Recovery	86%	80% - 120%
Relative Percent Difference	4.6%	< 20%

CHAIN OF CUSTODY FORM

PAGE ____ OF ____

PROJECT NAME: 4055 Hubbard St.
JOB NUMBER: 609.001
PROJECT CONTACT: Jeri Alexander
SAMPLED BY: Dennis Alexander
LAB: Curtis & Tompkins
TURNAROUND: Normal
REQUESTED BY: Jeri Alexander

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR	CONTAINERS: VOA	LITER	PINT	TUBE	METHOD PRESERVED: HCL	H_2SO_4	HNO_3	ICE	NONE	SAMPLING DATE: MONTH	DAY	YEAR	TIME	NOTES: TVH/BTXE	Oil & Grease	TEH
117099-1	MW-1	X				3	2			X			X		08	26	94	0930	X	X	X
-2	MW-2	X				3	2			X			X		08	26	94	1115	X	X	X
-3	MW-3	X				3	2			X			X		08	26	94	1030	X	X	X

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
Dennis Alexander	8/26/94 11:55 a.m.		
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
		Teresa K Morrison	8/26/94 11:55

COMMENTS & NOTES:

Subsurface Consultants, Inc.
171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607
(510) 268-0461 • FAX: 510-268-0137

WELL SAMPLING FORM

Project Name: 4055 Hubbard St. Well Number: MW-1

Job No.: 609.001 Well Casing Diameter: 2 inch

Sampled By: DWA Date: 8/26/94

TOC Elevation: _____ Weather: Foggy

Depth to Casing Bottom (below TOC) 20.25 feet

Depth to Groundwater (below TOC) 4.29' feet

Feet of Water in Well 15.96 feet

Depth to Groundwater When 80% Recovered 7.48' feet

Casing Volume (feet of water x Casing DIA ^{2} x 0.0408) 2.6 gallons

Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other

Free Product none

Purge Method Disposable Bailer

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
2	7.15	17.0	1500		semi-clear/no odor
4	7.14	16.0	1300		↓
6	7.11	17.5	1475		
8	7.10	18.0	1500		↓

Total Gallons Purged 8 gallons

Depth to Groundwater Before Sampling (below TOC) 7.44' feet

Sampling Method Teflon Bailer

Containers Used 3 (40 ml) 2 (liter) _____ (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED

PLATE

WELL SAMPLING FORM

Project Name: 4055 Hubbard St. Well Number: MW-2

Job No.: 609.001 Well Casing Diameter: 2 inch

Sampled By: DWA Date: 8/26/94

TOC Elevation: _____ Weather: Sunny

Depth to Casing Bottom (below TOC) 15.13 feet

Depth to Groundwater (below TOC) 4.72' feet

Feet of Water in Well 10.41 feet

Depth to Groundwater When 80% Recovered 6.80' feet

Casing Volume (feet of water x Casing DIA ^{2} x 0.0408) 1.70 gallons

Depth Measurement Method Tape & Paste / (Electronic Sounder) Other

Free Product none

Purge Method disposable bailer

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
0	7.35	21.0	1150		clear / no odor
2	7.37	21.0	1125		Semi-clear
4	7.34	21.0	1150		increasing turbidity
6	7.32	20.5	1150		

Total Gallons Purged 6 gallons

Depth to Groundwater Before Sampling (below TOC) 6.50' feet

Sampling Method teflon bailer

Containers Used 3 (40 ml) 2 (liter) _____ (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED PLATE

WELL SAMPLING FORM

Project Name: 4055 Hubbard St. Well Number: MW-3

Job No.: 609.001 Well Casing Diameter: 2 inch

Sampled By: DWA Date: 8/26/94

TOC Elevation: _____ Weather: foggy

Depth to Casing Bottom (below TOC) 15.13 feet

Depth to Groundwater (below TOC) 4.30' feet

Feet of Water in Well 10.83 feet

Depth to Groundwater When 80% Recovered 6.47' feet

Casing Volume (feet of water x Casing DIA ^{2} x 0.0408) 1.77 gallons

Depth Measurement Method Tape & Paste (Electronic Sounder) Other

Free Product None

Purge Method Disposable Bailer

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
0	7.34	20.5	1350		semi-clear/no odor
2	7.30	20.0	1325		
4	7.30	19.5	1325		increasing turbidity
6	7.29	19.5	1325		murky/no odor

Total Gallons Purged 6 gallons

Depth to Groundwater Before Sampling (below TOC) 6.42' feet

Sampling Method teflon bailer

Containers Used 3 (40 ml) 2 (liter) _____ (pint)

Subsurface Consultants	JOB NUMBER	DATE	APPROVED	PLATE