

Reviewed on 10/25/95

THE SUTTON GROUP

*Engineering and Environmental Services
51 Shuey Drive
Moraga, California, 94556-2620
phone (510) 631-1688 fax (510) 631-1371*

June 7, 1995

Mr. Mike Cortez
Oro Loma Sanitary District
2600 Grant Avenue
San Lorenzo, CA, 94580

Subject: Report of Removal of 1,000 Gallon Gasoline Tank
Oro Loma Sanitary District Service Center,
San Lorenzo, California

Dear Mr. Cortez:

This report documents removal of a 1,000 gallon, underground, gasoline storage tank. The tank site is adjacent to the Maintenance Building at the Oro Loma Sanitary District (OLSD) Service Center, at 2600 Grant Avenue in San Lorenzo, un-incorporated Alameda County, California. The site location is identified on Figure 1.

HISTORY

This 1,000 gallon tank was installed by OLSD in about 1978. It stored leaded gasoline until 1985, at which time it was converted to unleaded gasoline service. The District had not reported leakage from this tank. The tank was removed as part of the District's program to eliminate excess infrastructure. This tank replaced an pre-existent 1,000 gallon gasoline tank in the same location. That tank was part of the original construction of OLSD's maintenance facility in 1961. That original tank replaced because it leaked.

A subsurface investigation of the tank area, was commenced by Levine Fricke in August, 1993. That program comprised drilling six hollow stem auger borings, collection of soil samples, and grab ground water samples from selected borings. Samples analysis revealed soil contamination by gasoline to as much as 4,300 mg/kg (ppm), and ground water contamination to 1,600 ppm. Ground water was recorded at 6 feet depth in all 6 borings and no free product was reported. The project was terminated due to interference with seismic retrofit work on the adjacent building. The work was not completely documented. Available details of the investigation include a boring location plan and drilling logs in draft format, and laboratory results.

The Sutton Group was engaged by OLSD to complete the investigation and to remove the tank. This supplementary investigation comprised the excavation of seven test trenches in the parking lot. Trenches were sited in the possible down-gradient fan from the previous borings. The results of the investigation were documented in a report titled "Stage II Tank Removal Investigation, 1000 Gallon Gasoline Tank Site..." dated November 23, 1994. OLSD submitted the report to Alameda County Department of Environmental Health's UST Local Oversight Program (ACEH/LOP).

Also, legal by law - if not permitted.

The trenches were excavated 4 to 7.5 feet depth. The site subsurface profile comprises man-made placed over bayland deposits. The fill comprises fill a blue-green to brown quarry fill of gravel and sand placed over a bridging fill. The marshy bayland deposits ranged from moderate to highly plastic clay to very silty, very "peaty" and odorous, organic clay (Bay Mud). The trenches were logged, soils tested with a PID, and up to three soil samples from each trench, representative of surficial and deeper soils, were selected for chemical laboratory analysis. Soil sample results show concentrations of degraded gasoline in a plume emanating from the tank in granular fill soils and Bay Mud at depths shallower than observed ground water. Degraded gasoline was present at up to 1,600 mg/kg. Soil samples also indicated lead contamination with one sample exceeding the California STLC of 5 mg/kg.

Ground water was present in trenches at approximately 7 feet depth, which was about 4 feet into the bayland. Planned water sample collection was abandoned after one of the early trenches caved significantly when only 5 feet deep.

TANK REMOVAL

Following a public bidding process, OLSD contracted the tank removal with "VCI of California". VCI holds California Contractor's License number 487537. VCI filed a Tank Closure Permit application with ACEH/LOP which was approved in ACEH/LOP's letter dated April 17, 1995. The tank was removed May 3, 1995. Ms. Amy Leach of ACEH/LOP and San Lorenzo Fire Marshal Captain Carlson were on site and approved fire/environmental hazard conditions prior to removal of the tank.

The contractor excavated a 17 feet long by 11 feet wide pit to remove the 1,000 gallon tank. The soil overlying the tank was the previously discussed "blue-green granular fill," however, some of the coloration was around the fill pipe and also the pump line, suggesting overflow spillage, and possible fuel pipe leakage. The bottom of the 4 foot diameter tank was at 7 feet depth. The tank was founded in pea gravel, and water was noted at 7.5 feet depth in the pit. Little gasoline odor was noted in the shallow fill soil, including the vicinity of the service piping. Excavation of the pea gravel to expose "native" soils revealed similar soil conditions to those exposed in the November investigation. Excavation walls were relatively stable and shoring was not used. Water was noted to be seeping from the pit end walls at approximately 6 feet depth, which was in the zone of bayland soils.

Soil Sample Collection and Handling

Soil samples were collected from each end of the tank pit and from beneath the supply line elbow in the fuel island as required by Tri-Regional Guidelines (10 August, 1990). We also collected an additional sample from native soils beneath the bottom of the tank as an indicator of plume depth.

The sample locations are shown on Figure 2. Samples were collected from the tank pit by digging an "undisturbed" block of soil from a pre-designated location using the backhoe, in this case, a CAT 225 with 1.5 c.yd. bucket. From this block of soil in the backhoe bucket, the sample was

collected by driving a 2-inch diameter metal tube into the soil mass. Personnel did not enter the excavation.

The two samples from the tank ends were collected at the east and west ends of the pit, (Samples S1, S2) from just above the seepage surface, at 5.8 and 6.0 feet depth respectively. Sample S4 was fill soil collected from 1.5 feet depth below the former fuel dispenser, from soil immediately below the fuel line elbow joint. Sample S3 was native soil collected at the center of the pit, at a depth of 11.5 feet following removal of pea gravel. These soil samples were documented, labeled, and entered into Chain-of Custody. Then they were packed on ice for transport to the District's contract chemical laboratory, Sequoia Analytical Laboratory in Redwood City California.

Ground Water Sampling

The ground water sampling program consisted of collecting a "grab" water sample from the tank pit. Seepage was slow, and water was turbid. We noted no indication of free product. Water samples were decanted into containers provided by the laboratory. There was insufficient water available to avoid significant turbidity and sediment. The water samples were put on "hold" status at the laboratory. Since grab ground water sample results from the 1993 investigation document the existence of gasoline contamination, ACEH/LOP, on May 5, 1995, alleviated the need for analysis of the subject turbid tank pit water samples.

Laboratory Testing Program

The District contracted Sequoia Analytical Laboratory of Redwood City California to transport and analyze the samples. Sequoia is an independent, California EPA-certified hazardous waste testing laboratory (ELAP #1210) accredited to perform the analyses in accordance with the San Francisco Bay Regional Water Quality Control Board, and the Alameda County Health Department's Hazardous Materials Program's guidelines for analysis of petroleum fuels releases from underground tanks.

Soil samples were analyzed for total petroleum hydrocarbons as gasoline, benzene, toluene, ethyl benzene and xylenes using EPA Methods 8015 modified, and 8020 respectively, and for lead by EPA Method 6010. Additionally one lead sample was reanalyzed by the Cal WET procedure.

ANALYTICAL RESULTS

The results indicate leaded gasoline contamination and concur with the results of the subsurface investigations. Sample S3 shows that the significant contamination is in the upper eleven feet of subsurface profile. Analytical results are summarized on Table 1, and the laboratory reports are included as an Appendix.

A copy of this report should be provided to the Alameda County Environmental Health Department, UST Local Oversight Program, to the attention of Ms. Amy Leach.

Please call the writer should you have questions or comments

Yours truly,

THE SUTTON GROUP

John R. Sutton,
Civil Engineer No. 40324
Geotechnical Engineer No. 812

Attachments:	Table 1,	Tank Removal Analytical Results
	Figure 1	Site Vicinity Map
	Figure 2	Site Plan and Sample Locations
	Appendix	Sequoia Analytical Report No 9505326 dated 5/11/95
		Sequoia Analytical Report No 9505857 dated 5/24/95

TABLE 1
TANK REMOVAL ANALYTICAL RESULTS

TEST RESULTS FOR SOILS

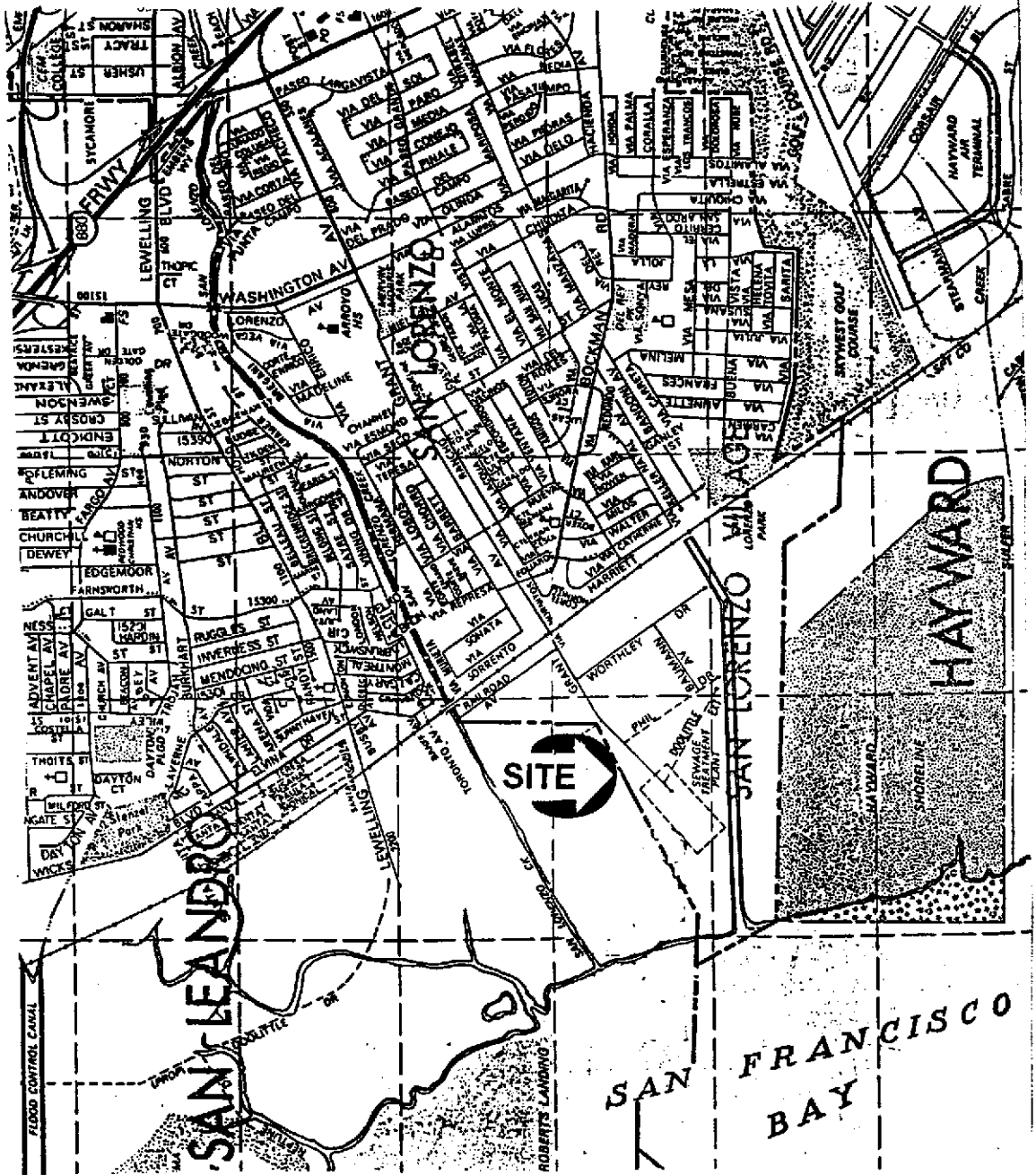
SAMPLE ID	LOCATION	DEPTH Ft.	TPH-GAS mg/kg	Benzene mg/kg	Toluene mg/kg	Ethyl Benzene mg/kg	Xylenes mg/kg	LEAD, Total mg/kg	LEAD, Sol. mg/kg
S1	East End of Tank Pit	5.8	1,900	7.1	57	39	190	18	NA
S2	West End of Tank Pit	6	3,300	37	18	61	350	260	6.4
S3	Center of Tank Pit	11.5	43	0.3	0.56	0.41	1.7	ND	NA
S4	Island: beneath fuel pipe	1.5	49	0.25	0.28	0.45	2.6	15	NA
MDLs*			0.2	0.005	0.005	0.005	0.005	5	0.1

* Refer to Laboratory Report for complete listing of results

Job No. 3022, Stage 4

THE SUTTON GROUP
Engineering and Environmental Services
Moraga, California (510) 631-1688

ORO LOMA SANITARY DISTRICT
GASOLINE TANK REMOVAL
MAY, 1995



SOURCE: THOMAS BROS MAPS, ALAMEDA COUNTY, CALIFORNIA

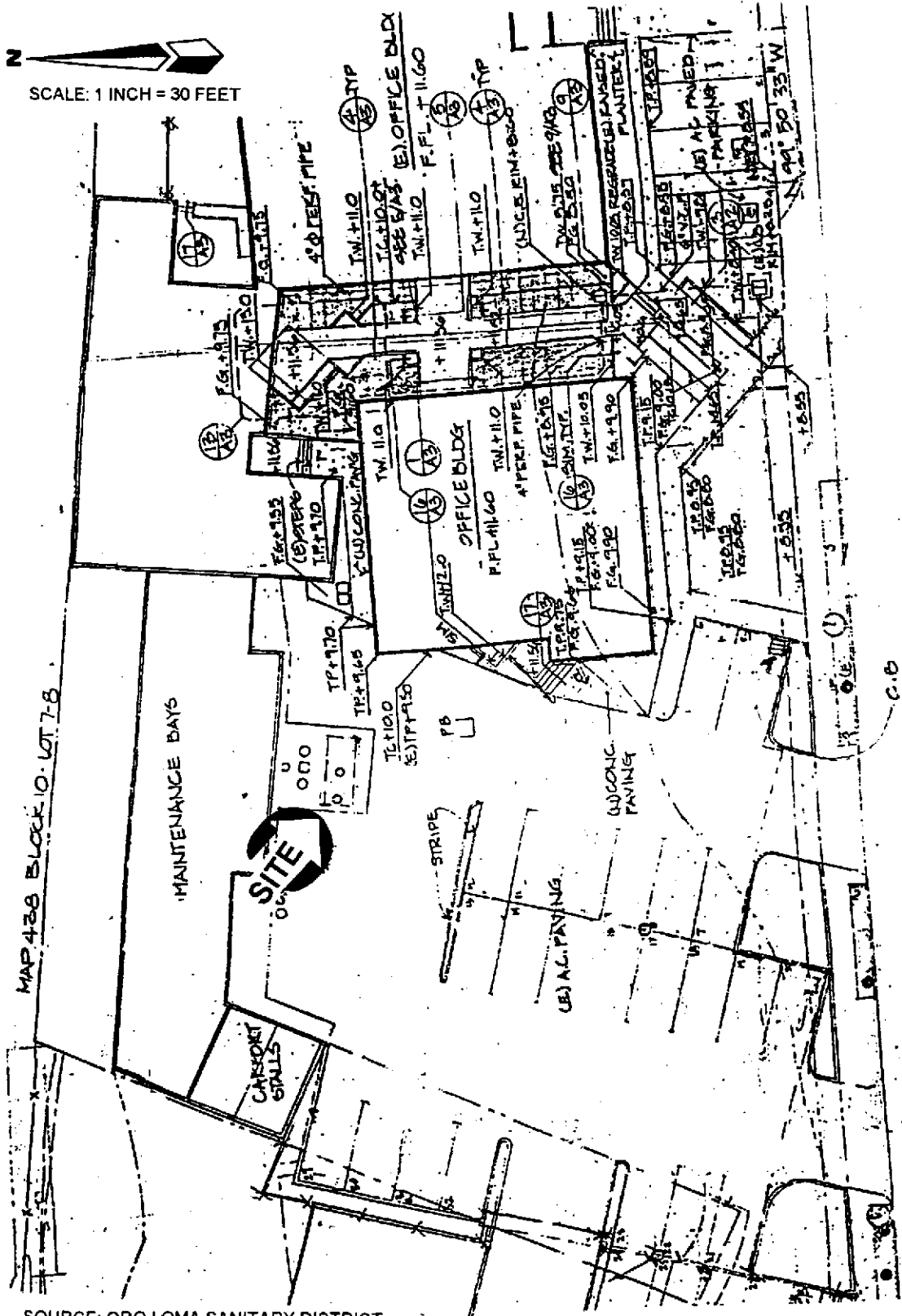
THE SUTTON GROUP
 Engineering and Environmental Services
 51 Shuey Drive
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 phone (510) 631-1688

SITE LOCATION MAP
 1000 GALLON TANK REMOVAL
 ORO LOMA SANITARY DISTRICT
 SAN LORENZO, CALIFORNIA

PROJECT NO. 3022
 FIGURE No 1
 5/30/95



SCALE: 1 INCH = 30 FEET



SOURCE: ORO LOMA SANITARY DISTRICT

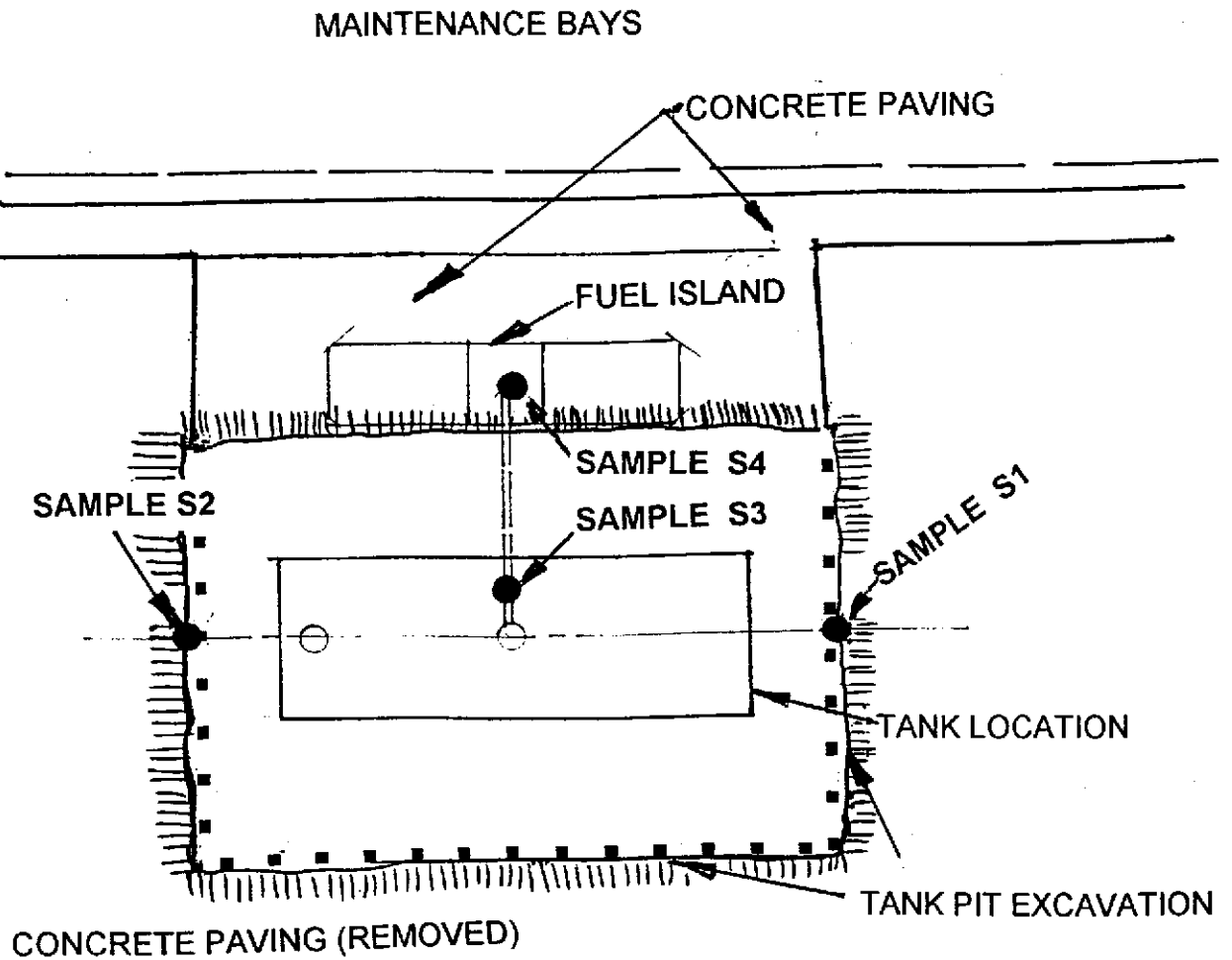
THE SUTTON GROUP
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 phone (510) 631-1688

FACILITY MAP
 1000 GALLON TANK REMOVAL
 ORO LOMA SANITARY DISTRICT
 SAN LORENZO, CALIFORNIA

PROJECT NO. 3022
 FIGURE No **2**
 5/30/95



NOT TO SCALE



SAMPLE ID	LOCATION	DEPTH Ft.
S1	East End of Tank Pit	5.8
S2	West End of Tank Pit	6
S3	Center of Tank Pit	11.5
S4	Island: beneath fuel pipe	1.5

THE SUTTON GROUP
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 phone (510) 631-1688

SITE PLAN
 1000 GALLON TANK REMOVAL
 ORO LOMA SANITARY DISTRICT
 SAN LORENZO, CALIFORNIA

PROJECT NO. 3022
 FIGURE No. **3**
 5/30/95



The Sutton Group 51 Shuey Drive Moraga, CA 94556-2620	Client Proj. ID: Prj#3022/ 1000 gal gas tank Lab Proj. ID: 9505326	Sampled: 05/03/95 Received: 05/04/95 Analyzed: see below Reported: 05/11/95
Attention: Mike Cortez		

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9505326-01 Sample Desc: SOLID,S1				
Lead	mg/Kg	05/10/95	5.0	18
Lab No: 9505326-02 Sample Desc: SOLID,S2				
Lead	mg/Kg	05/10/95	5.0	260
Lab No: 9505326-03 Sample Desc: SOLID,S3				
Lead	mg/Kg	05/10/95	5.0	N.D.
Lab No: 9505326-04 Sample Desc: SOLID,S4				
Lead	mg/Kg	05/10/95	5.0	15

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Jim Heider
Project Manager





The Sutton Group 51 Shuey Drive Moraga, CA 94556-2620 Attention: Mike Cortez	Client Proj. ID: Prj#3022/ 1000 gal gas tank Sample Descript: S1 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9505326-01	Sampled: 05/03/95 Received: 05/04/95 Extracted: 05/08/95 Analyzed: 05/09/95 Reported: 05/11/95
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QC Batch Number: GC050895BTEXEXA
Instrument ID: GCHP06


Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	500	1900
Benzene	2.5	7.1
Toluene	2.5	57
Ethyl Benzene	2.5	39
Xylenes (Total)	2.5	190
Chromatogram Pattern:		Gas

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	123

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Jim Heider
Project Manager





The Sutton Group 51 Shuey Drive Moraga, CA 94556-2620 Attention: Mike Cortez	Client Proj. ID: Prj#3022/ 1000 gal gas tank Sample Descript: S2 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9505326-02	Sampled: 05/03/95 Received: 05/04/95 Extracted: 05/08/95 Analyzed: 05/09/95 Reported: 05/11/95
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QC Batch Number: GC050895BTEXEXA
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	500	3300
Benzene	2.5	37
Toluene	2.5	18
Ethyl Benzene	2.5	61
Xylenes (Total)	2.5	350
Chromatogram Pattern:		Gas

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	123

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Jim Heider
Project Manager





The Sutton Group 51 Shuey Drive Moraga, CA 94556-2620	Client Proj. ID: Prj#3022/ 1000 gal gas tank Sample Descript: S3 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9505326-03	Sampled: 05/03/95 Received: 05/04/95 Extracted: 05/08/95 Analyzed: 05/10/95 Reported: 05/11/95
Attention: Mike Cortez		

QC Batch Number: GC050895BTEXEXA
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	5.0	43
Benzene	0.025	0.30
Toluene	0.025	0.56
Ethyl Benzene	0.025	0.41
Xylenes (Total)	0.025	1.7
Chromatogram Pattern:		Gas

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	137 Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Jim Heider
Project Manager





The Sutton Group
51 Shuey Drive
Moraga, CA 94556-2620

Client Proj. ID: Prj#3022/ 1000 gal gas tank
Sample Descript: S4
Matrix: SOLID
Analysis Method: 8015Mod/8020
Lab Number: 9505326-04

Sampled: 05/03/95
Received: 05/04/95
Extracted: 05/08/95
Analyzed: 05/09/95
Reported: 05/11/95

QC Batch Number: GC050895BTEXEXA
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	5.0	49
Benzene	0.025	0.25
Toluene	0.025	0.28
Ethyl Benzene	0.025	0.45
Xylenes (Total)	0.025	2.6
Chromatogram Pattern:		Gas

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	138 Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Jim Heider
Project Manager





The Sutton Group
51 Shuey Drive
Moraga, CA 94556-2620
Attention: Mike Cortez

Client Project ID: Prj#3022/ 1000 gal gas tank
Matrix: Solid

Work Order #: 9505326 -01-04

Reported: May 12, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME0509956010MDF	ME0509956010MDF	ME0509956010MDF	ME0509956010MDF
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050

Analyst:	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser
MS/MSD #:	950532601	950532601	950532601	950532601
Sample Conc.:	N.D.	N.D.	31	35
Prepared Date:	5/9/95	5/9/95	5/9/95	5/9/95
Analyzed Date:	5/10/95	5/10/95	5/10/95	5/10/95
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg
Result:	99	98	130	130
MS % Recovery:	99	98	99	95
Dup. Result:	99	98	120	130
MSD % Recov.:	99	98	89	95
RPD:	0.0	0.0	8.0	0.0
RPD Limit:	0-30	0-30	0-30	0-30

LCS #:	BLK050995	BLK050995	BLK050995	BLK050995
Prepared Date:	5/9/95	5/9/95	5/9/95	5/9/95
Analyzed Date:	5/10/95	5/10/95	5/10/95	5/10/95
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg
LCS Result:	100	99	100	100
LCS % Recov.:	100	99	100	100

MS/MSD	LCS	75-125	75-125	75-125	75-125
Control Limits					

Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

Jim Helder
Jim Helder
Project Manager

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

9505326.SSS <1>





The Sutton Group
51 Shuey Drive
Moraga, CA 94556-2620
Attention: Mike Cortez

Client Project ID: Prj#3022/ 1000 gal gas tank
Matrix: Solid
Work Order #: 9505326-01-04

Reported: May 12, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC050895BTEXEXA	GC050895BTEXEXA	GC050895BTEXEXA	GC050895BTEXEXA
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	G. Garcia	G. Garcia	G. Garcia	G. Garcia
MS/MSD #:	950522001	950522001	950522001	950522001
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	5/8/95	5/8/95	5/8/95	5/8/95
Analyzed Date:	5/8/95	5/8/95	5/8/95	5/8/95
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	0.20 mg/Kg	0.20 mg/Kg	0.20 mg/Kg	0.60 mg/Kg
Result:	0.15	0.15	0.15	0.45
MS % Recovery:	75	75	75	75
Dup. Result:	0.19	0.19	0.19	0.56
MSD % Recov.:	95	95	95	93
RPD:	24	24	24	22
RPD Limit:	0-50	0-50	0-50	0-50

LCS #:	-	-	-	-
Prepared Date:	-	-	-	-
Analyzed Date:	-	-	-	-
Instrument I.D.#:	-	-	-	-
Conc. Spiked:	-	-	-	-
LCS Result:	-	-	-	-
LCS % Recov.:	-	-	-	-

MS/MSD				
LCS	55-145	47-149	47-155	56-140
Control Limits				

Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

[Signature]
Jim Helder
Project Manager

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9505326.SSS <2>



9505326

Chain of Custody/Analysis Work Order

Client: OLSD
 Address: 2600 GRANT RD
SAN LORENZO 94580
 Contact: MIKE CORTEZ
 Telephone #: (510) 276-4700
 Date Received: 5/3/95
 Turn Around: Reg (>5day)

Project ID: 3022
"1000 gal gas Tank"
THE SUTTON GROUP
 Engineering and Environmental Services

John R. Sutton, P.E., REA
 Principal Engineer

Phone (510) 631-1688
 Fax (510) 631-1371

51 Shuey Drive
 Moraga, CA 94556

LAB USE ONLY

Samples arrived chilled and intact:

Yes No

Notes: _____

Sample Information

Requested Analysis

Lab #	Sample ID	Grab/Composite	Matrix	Date Collected	Time Collected	Pres.	Sample Container	GC/MS	PCB	Lead (Total)	Requested Analysis
	S1	G	Soil	5/3/95	1250 pm	N/A	Brass 2x6	/	/	/	@ 58' East End of NK
	S2	G	Soil	5/3/95	1:10 pm	N/A	Brass 2x6	/	/	/	@ 60' West End of NK
	W1	G	Water	5/3/95	1:30 pm	N/A	2x VOA 1x 12amber	/	/	/	Hold *Need to lab filter.
	S3	G	Soil	5/3/95	1:45 pm	N/A	Brass 2x6	/	/	/	@ 11.85' depth, 4' Tank
	S4	G	Soil	5/3/95	2:30 pm	N/A	Brass 2x6	/	/	/	1.5' below fuel pipe in island.

Relinquished By: <u>[Signature]</u>	Received By: <u>Michael P. [Signature]</u>	Date: <u>5/3/95</u>	Time: <u>2:30 pm</u>
Relinquished By: <u>Michael P. [Signature]</u>	Received By: <u>[Signature]</u>	Date: <u>5/4/95</u>	Time: <u>12:40</u>
Relinquished By: <u>[Signature]</u>	Received By: <u>[Signature]</u>	Date: <u>5/4/95</u>	Time: <u>1:30</u>

MAR-31-95 FRI 02:48 PM HULL Dev Labs 408 287 1786



**Sequoia
Analytical**

680 Chesapeake Drive
404 N. Wiget Lane
819 Striker Avenue, Suite 8

Redwood City, CA 94063
Walnut Creek, CA 94598
Sacramento, CA 95834

(415) 364-9600
(510) 988-9600
(916) 921-9600

FAX (415) 364-9233
FAX (510) 988-9673
FAX (916) 921-0100

The Sutton Group
51 Shuey Drive
Moraga, CA 94556-2620

Client Proj. ID: Prj #9022/1000 gal gas tank

Lab Proj. ID: 9505857

Sampled: 05/03/95
Received: 05/04/95
Analyzed: see below

Attention: Mike Cortez

Reported: 05/24/95

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9505857-01 Sample Desc: SOLID,S2				
Lead: STLC Extraction	mg/L	05/19/95	0.10	6.4

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Jim Helder
Project Manager

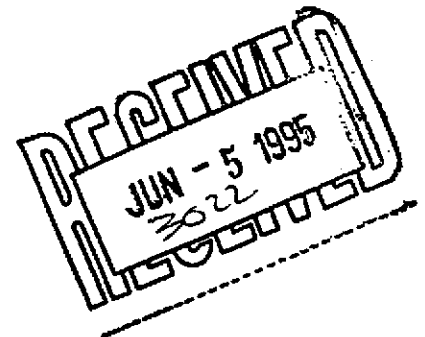




The Sutton Group 51 Shuey Drive Moraga, CA 94556-2620	Client Proj. ID: Prj#3022/1000 gal gas tank Lab Proj. ID: 9505857	Sampled: 05/03/95 Received: 05/04/95 Analyzed: see below Reported: 05/24/95
Attention: Mike Cortez		

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9505857-01 Sample Desc : SOLID,S2				
Lead: STLC Extraction	mg/L	05/19/95	0.10	6.4



Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Jim Helder
Project Manager





The Sutton Group
51 Shuey Drive
Moraga, CA 94556-2620
Attention: Mike Cortez

Client Project ID: Prj#3022/1000 gal gas tank
Matrix: Liquid

Work Order #: 9505857 -01

Reported: May 25, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME0519956010MDA	ME0519956010MDA	ME0519956010MDA	ME0519956010MDA
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3010	EPA 3010	EPA 3010	EPA 3010

Analyst:	SO/CM	SO/CM	SO/CM	SO/CM
MS/MSD #:	9505A2201	9505A2201	9505A2201	9505A2201
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	5/19/95	5/19/95	5/19/95	5/19/95
Analyzed Date:	5/19/95	5/19/95	5/19/95	5/19/95
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L
Result:	0.97	0.95	0.96	0.95
MS % Recovery:	97	95	96	95
Dup. Result:	0.98	0.95	0.97	0.94
MSD % Recov.:	98	95	97	94
RPD:	1.0	0.0	1.0	1.0
RPD Limit:	0-30	0-30	0-30	0-30

LCS #:	-	-	-	-
Prepared Date:	-	-	-	-
Analyzed Date:	-	-	-	-
Instrument I.D.#:	-	-	-	-
Conc. Spiked:	-	-	-	-
LCS Result:	-	-	-	-
LCS % Recov.:	-	-	-	-

MS/MSD				
LCS	75-125	75-125	75-125	75-125
Control Limits				

SEQUOIA ANALYTICAL

Jim Helder
Jim Helder
Project Manager

Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

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