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HAZMAT

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Please Reply To WALNUT CREEK looks lile pegnificant
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Gw spled)

April 22, 1994

Barney Chan Alameda County Health Care Services Agency Dept. of Environmental Health 80 Swan Way, Room 200

<u>Hausauer v. Robertson</u>

Property: 3927 E. 14th Street, Oakland

Our File No.: 1023-0031

Dear Mr. Chan:

Oakland, CA 94621

Please find enclosed a report by John P. Cummings & Associates on the monitoring wells and soil borings installation at the abovereferenced property.

Please call Art Fisher if you have any questions concerning the enclosed.

Very truly yours,

KING, SHAPIRO, MITTELMAN & BUCHMAN

Roleen Lou Johnson

Secretary to Arthur E. Fisher

RLJ

Enclosure(s)

John P. Cummings & Associates

Environmental Consultants

Ph. (510) 505-0722 Fax (510) 791-3306 P.O. Box 2847 Fremont, CA 94536-2847

File No. 0193002.01 April 8, 1994 PERSONAL AND CONFIDENTIAL

Mr. Ruben Hausauer 6017 14th Street Oakland CA 94601

Subject; Report on Monitoring Well and Soil Borings Installation 3927 E. 14th Street, Oakland CA

Dear Mr. Hausauer,

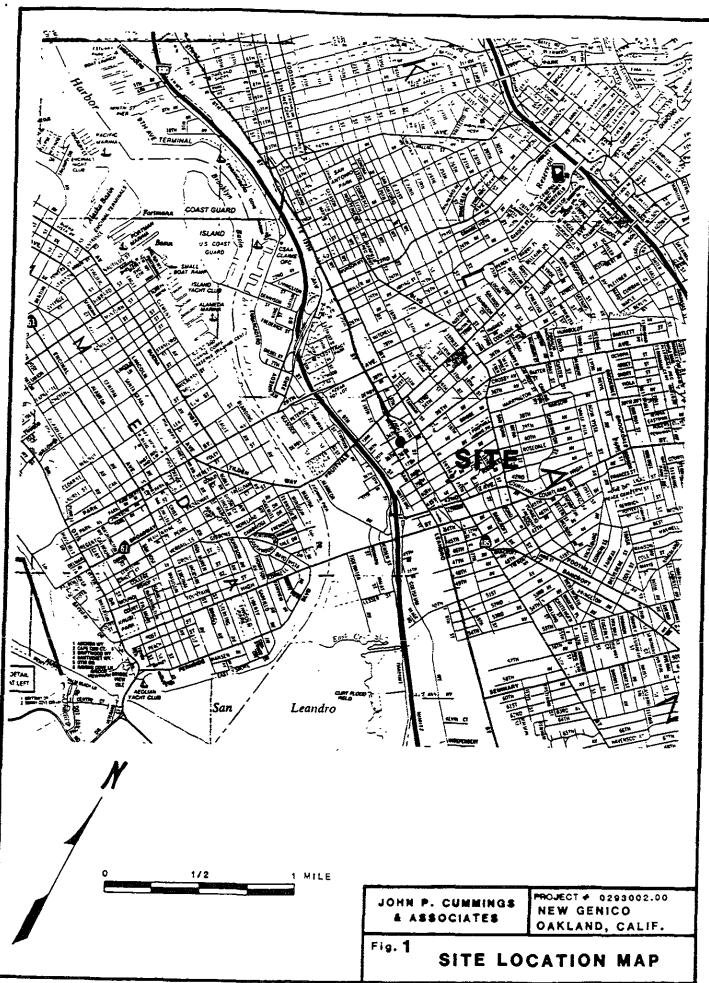
John P. Cummings & Associates (JPCA) is pleased to present the following report on the investigation of the site conditions and other work performed in accordance with the proposal dated February 4, 1994. The site is located at 3927 E. 14th Street, Oakland, CA. A former waste oil Underground Service Tank (UST) was filled in place beneath the sidewalk on this site. Figure 1 is a site location map.

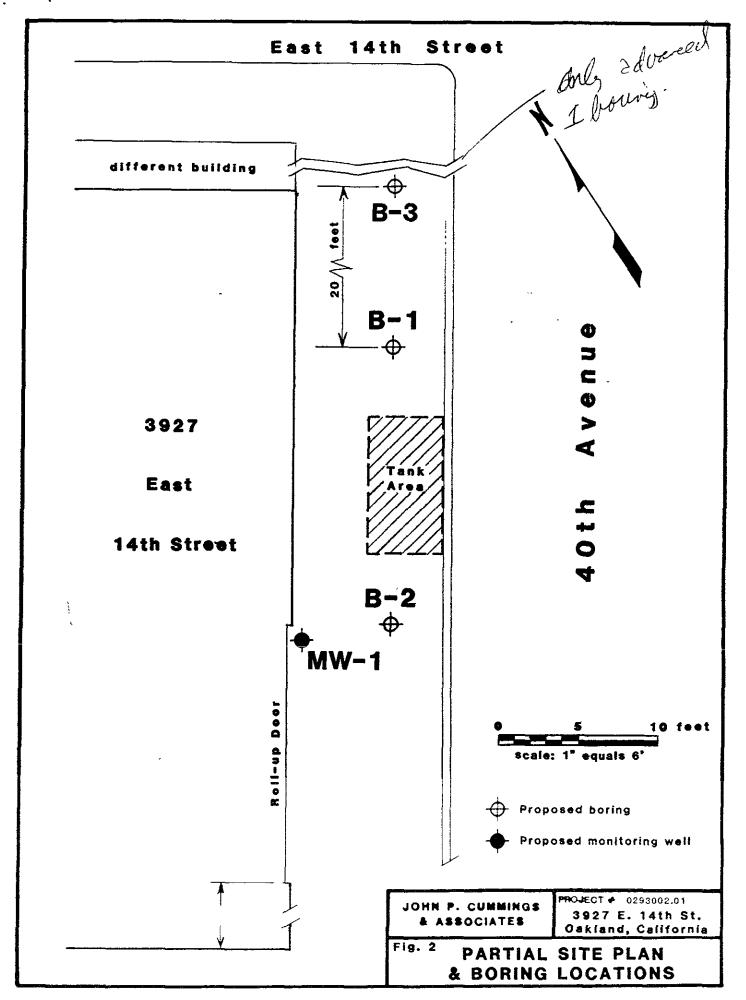
Two borings were drilled during November 1993, under the supervision of JPCA, at approximately 45 degrees to allow for soil sample collection in the native soil beneath the UST. Based on the placement of the UST, discussions with the present property owner and people working in the area, the tank appears to have been a waste oil tank. Or sample.

A review of the Alameda County Department of Environmental Health (ACDEH) files for the OWENS Site at 1234 40th Ave, the SHELL Site at 3750 E. 14th Street and the UNOCAL Site at 4241 E. 14th Street was conducted. Copies of the "OWENS" file and pertinent portions of the SHELL and UNOCAL files were sent to Robert W. Shapiro, Esq. and James D. Mayol, Esq.

The review of the "OWENS" file for Motors Partners whose address is 1234 40th Avenue, Oakland CA, (the "OWENS" site is directly across 40th Avenue and "up" gradient from the Hausauer property) shows very high levels of contamination, both in the soil and groundwater, in the former UST excavation area. The gasoline pit was re-excavated on January 11, 1994 and was reported to have "floating product" on the water in the excavation as well as a strong hydrocarbon odor.

A workplan for characterization of the soil and groundwater beneath this site was written. A permit for the monitoring well and





borings was obtained. The permit is included in Appendix A. A site specific Health and Safety Plan was completed. US Alert was contacted prior to drilling.

FIELD WORK

On March 4, 1994, John N. Alt and John P. Cummings of JPCA were on site. A permit to conduct the drilling of the borings had been received from the Zone 7 Water Agency. Clearance was received telephonically from U S Alert a week earlier. The utilities had been marked.

The well (MW 1) is located approximately 10 feet westerly of the exit port of the UST on the site. Boring (B-3) is in the sidewalk approximately 20 feet northeast of B-1. The location of the boring identified as B-3 and Monitoring Well (MW-1) are shown in Figure 2. The second boring anticipated to be completed at this time could not be placed because the sidewalk area was blocked and the drilling rig could not access the site. The UST location is also clearly identified in Figure 2. The prior borings B-1 and B-2 are also identified in Figure 2.

SOILS EXPLORATION SERVICES INC. was the driller for the boring and the well and provided the well supplies. The Boring Logs were prepared by the Certified Engineering Geologist, who directed the installation and recorded the observations of the geologic materials encountered on site during the drilling. Soil Samples were collected at five foot intervals. These samples were collected for a description of the subsurface soil conditions. Four soil samples were collected for chemical analysis. The Boring and Well Logs are contained in Appendix A.

The soil encountered in Boring 3 (B-X) was a plastic, stiff, moist black clay at the surface and became stiffer as the boring was advanced. The color changed from black to brown to blue-green, with sand at six feet, to olive green and green as the boring was advanced to approximately 10 feet. A strong hydrocarbon odor was encountered at approximately 9 feet and the soil, composed of green sand with gravel in the clay matrix, appeared to be saturated with hydrocarbon.

The soil encountered in the Monitoring Well (MW-1) was a plastic, stiff, moist black clay at the surface and became stiffer as the boring was advanced. The color changed from black to light grey to blue-green sandy clay at approximately 6 feet. A slight odor was encountered at this level. The clay changed to olive green with medium to course grained green sand and some pebbles as the boring was advanced to approximately 20 feet. A strong hydrocarbon odor was encountered beyond approximately 6 feet and continued to persist to the bottom of the boring. The saturated zone was encountered at approximately 9 feet.

Two soil samples were acquired from B-3, one at approximately 5.5 feet and the second at approximately 10 feet below grade. The samples collected from B-1 at 5.5 and 10 feet were identified as B-3-1 and B-3-2 respectively. The samples collected from MW-1 at approximately 5.5, and 10.5 feet were identified as MW-1-1 and MW-1-2 respectively. The samples were collected in clean brass tubes, capped and sealed, labeled, held in a cooler at approximately 4 degrees Centigrade, until analysis by a State Certified laboratory and transported under Chain-of-Custody documentation.

After the soil samples were collected the boring was slurry filled with cement. The soil cuttings from the boring and well were stored on site in a 55-gallon DOT drum.

On the morning of March 7, 1994, three days after the installation of the well prior to purging and sampling, the depth to groundwater was measured by an electronic probe. The water depth was measured at 5.78 feet from the mark located on the top of the casing. Permission to measure the other wells nearby has not been granted to date. Field notes are contained in Appendix A. The Site Plan is Figure 1.

Approximately 3.5 gallons of groundwater was removed from MW 1, by a pump which pumped the well to dryness. The water so removed was stored in a 55 gallon drums, awaiting analysis.

The well was allowed to recharge for about two hours. A groundwater sample collected by a clean dedicated bailer. The groundwater sample was put in clean glass containers, sealed with Teflon closures, labeled, placed in an cooler chest with Ice and transported to a state certified laboratory under COC documentation for analyses.

ANALYTICAL RESULTS

The soil (4) and groundwater (1) samples were analyzed for Total Petroleum Hydrocarbons, as gasoline (TPHG) and Total Petroleum Hydrocarbons, as diesel (TPHD); Benzene, Toluene, Ethylbenzene and Xylene (BTEX) via EPA Modified Method 8020/8015; Total Oil and Grease (TOG) via the GC FID method: and for the metals Cadmium, Chromium, Lead, Nickel and Zinc (CAM 5) using the WET method. These analyses are those required in the "Tri-Regional Guidelines" which are directives of the Regional Water Quality Control Board and requested by the ACDEH.

Soil Samples

The results for the soil samples, in parts per million (ppm), for TPHD, TPHG and BTEX are shown in Table 1. below. The laboratory

data sheets with detection limits and COC documentation are contained in Appendix B.

TABLE 1.

		ppm	8			
Sample ID	TPHD	TPHG	В	T	<u>E</u>	X
B-3-5 B-3-9.5 MW-1-5 MW-1-10	ND 31 ND 33	ND 800 110 1000	ND ND ND ND	ND 1.8 ND 2.8	ND 1.4 0.19 6.9	ND 5.8 0.16 11

ND=Not Detected

The results, in ppm, of the analysis of the soil samples, utilizing the GC FID method requested by ACDEH, for Total Hydrocarbons and TOG are shown in Table 2. below. The laboratory data sheets with detection limits and COC documentation are contained in Appendix B.

TABLE 2. ppm

Sample ID	Total Oil and Grease	Hydrocarbons
B-3-5	ND	ND
B-3-9.5	550	550
MW-1-5	ND	<1 = ND
MW-1-10	1200	1200

ND=Not Detected

The results for the soil samples, in ppm, for 5 California Action Metals (CAM 5) are shown in Table 3. below. The laboratory data sheets with detection limits and COC documentation are contained in Appendix B.

TABLE 3. ppm

Sample ID	Cadmium	Chromium	Lead	Nickel	Zinc
B-3-5	ND	0.285	ND	3.58	0.36
B-3-9.5	ND	0.265	ND	0.76	0.83
MW-1-5	ND	0.235	ND	3.53	0.365
MW-1-10	0.135	0.635	2.18	3.28	0.48

ND=Not Detected

Groundwater Sample

The results for the groundwater sample, in parts per billion (ppb), for TPHD, TPHG and BTEX are shown in Table 4. below. The laboratory data sheets with detection limits and COC documentation are contained in Appendix B.

TABLE 4.

ppb

Sample ID	TPHD	TPHG	В	T	E	X
MW-1 Water	4600	64000	3200	740	1800	2100

The results for TOG in the water sample collected from MW-1 was 360 ppm. The laboratory data sheets with detection limits and COC documentation are contained in Appendix B.

The groundwater (MW-1) sample's analytical results for 5 California Action Metals (CAM 5) were Not Detectable for Cadmium, Chromium and Lead. The results for Nickel and Zinc were 0.45 and 0.345 ppm respectively. The laboratory data sheets with detection limits and COC documentation are contained in Appendix B.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

No Benzene was detected in the soil samples.

The soil sample analysis for boring, B-3 and monitoring well, MW-1 indicate background levels of Cadmium, Chromium, Lead, Nickel and Zinc (the CAM-5 Metals). These background level results were consistent with the data obtained from the previous analysis for the soil samples analyzed from B-1 and B-2.

The soil samples collected at the 5 foot depth in MW-1 and B-1 show nondetectable or minor concentrations of TPHG, TPHD and BTEX, however the soil samples from the approximately 10 foot depth show much greater concentrations of TPHG, TPHD and Toluene, Ethylbenzene and Xylene.

The groundwater samples have actionable levels of TPHG and BTEX. The concentrations of these contaminants found in the groundwater indicate a gasoline source. Based on the analytical data, regional groundwater gradient and the "OWENS" file, it appears that the Motor Partners site (directly across 40th Ave from the subject

Ms send chrimatograms

site) is a significant source of the gasoline contamination found under the Hausauer property.

According to the analytical report, the laboratory data showed "weathering", for the TPHG and BTEX chromatograms which indicates these contaminants have been in the soil for a very long time.

This report has been prepared specifically for Mr. Ruben Hausauer with specific application to a hazardous waste investigation. The report has been prepared with the care and skill generally exercised by reputable professionals, under similar circumstances, in this or similar localities. No other warranty, either expressed or implied, is made as to the professional advice presented.

If you have any questions, please call JPCA at (510) 505-0722.

Sincerely,

John P. Cummings

Principal

John N. Alt

CEG

cc: Robert W. Shapiro, Esq. Arthur E. Fisher, Esq.

APPENDIX A



SIGNATURE

ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588

VOICE (510) 484-2600 FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE	FOR OFFICE USE				
LOCATION OF PROJECT 3927 East 14th Street Oakland CA Sidewelk area	PERMIT NUMBER 94048 LOCATION NUMBER				
CLIENT Name Ruben Hausauer Address 6017 East 14th Street Voice City Oakland CAZip 94601	PERMIT CONDITIONS Circled Permit Requirements Apply				
APPLICANT Name John P. Cummings and Associates Fax (510) 791 3306 Address P O Box 2847 Voice (510) 505 0722 City Fremont CA Zip 94536 TYPE OF PROJECT Well Construction Geotechnical Investigation Cathodic Protection General Water Supply Contamination XX Monitoring Well Destruction PROPOSED WATER SUPPLY WELL USE N/A Domestic Industrial Other Municipal Irrigation DRILLING METHOD: Mud Rotary Air Rotary Auger XX Cable Other	A. GENERAL 1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting data. 2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well Projects, or drilling logs and location sketch for geotechnical projects. 3. Permit is void if project not begun within 90 days of approval date. 8. WATER WELLS, INCLUDING PIEZOMETERS 1. Minimum surface seal thickness is two inches of cement grout placed by tramis. 2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lasser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet. C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. in areas of known or suspected contamination, tremied cement grout				
DRILLER'S LICENSE NO. Great Sierra /C57 #610487 WELL PROJECTS Drill Hote Diameter 9 in. Maximum Casing Diameter 2 in. Depth 25 Surface Seal Depth ft. Number 1	shall be used in place of compacted cuttings. D. CATHODIC. Fill hole above anode zone with concrete placed by tremis. E. WELL DESTRUCTION, See attached.				
GEOTECHNICAL PROJECTS Number of Borings Hole Diameter 8 in. Depth 1: ft.					
ESTIMATED STARTING DATE 1 Feb 1994 ESTIMATED COMPLETION DATE 3 Feb 1994 Thereby agree to comply with all requirements of this permit and Alameda	Approved Wyman Hone Date 26 Jan 94				
County Ordinance, No. 73-68.	N WANIER FEDITE				

Date Jan 21, 1994

91992

BURIN LOCAT	Jon 40th Ave. west of 14th St. O. ING STOR Soil Exploration Services DR ING MENT limited access rig	akland.	ELEVA AND D	MITA	Ī	<u></u>	 .	
CONTR	ACTOR Soil Exploration Services DR	ILLER _{Moe} ,Dolly	DATE START COMPL DEPTH NO. C SAMPL	FB 3	3/4/	94		FINISHED 3/4/94
EOUIP	NG MENT limited access rig		DEPTH	ETTO I (FT	N 10	1/	2	ROCK DEPTH (FT)
DIANE OF BO PURPO	RING 7 3/4 inches		NU. C	F UI	DIS	r. ₂		CURE
9 LJE K()	KING SOTI SAMDITAO		WATER	(FT)	IRST	<u>8</u>	1/2	COMPL.
SAMPL EQUIP	TNG MENT California modified split spoon	on	Č066E	D BA	:		<u> </u>	CHECKED BY:
COMME	NTS		J	Г. А	1t			
						LES	48	
DEPTH (FEET)	DESCRIPTION		GRAPHIC LOG LITHOLOGY	NO.	TYPE	BLOW COUNT	DRTELTR RATE/ TIME	REMARKS
	4 inch concrete sidewalk							
1	black CLAY, moist, plastic.	7	-					
+	· · · · · · · · · · · · · · · · · · ·	-	-					
1								
]						
Ī	medium-brown CLAY, moist, plasti		-	-				-
5	_ more promi obiii, more, prase		_	ļ		7		
+			-	1		17 29		
1	blueish-green CLAY.with sand, sa	and is scattered	_	-		29		
+	greater than 10%, slightly moist	, plastic.						
†	olive-green CLAY.		Δ					-
+	green SAND with gravel, saturate	ed with old -	- 🗦			177		
10+	gasoline (?), clay in matrix.	_	L	2		11 22 45		
L						45		
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WELL LOG

Project Hauser Property	Well Number	MW-1
Location 40th Ave. west of 14th St., Oakland.	Diameter of Boring	7 3/4 inches
Project #	Total Depth of Boring	20 feet
Geologist J. Alt, CEG	Date Started	March 4, 1994
Drill Company Soil Exploration Services	Date Completed	March 4, 1994
Comments		

Depth		*	Ø	<u>o</u>	
in Feet	WELL CONSTRUCTION DETAIL	Sample	Blow Counts	Graphic Log	DESCRIPTION
- 0 - 1 - 2 - 3 - 4 - 7 - 8 - 9 - 10	Schedule 40 PVC pipe Schedule 40 PVC pipe with 0.01" slots		12 22 33	章	6 inch concrete pad black CLAY, moist, plastic, light gray CLAY, moist, plastic. blueish-green sandy CLAY, moist, matrix is plastic, greater than 10% sand, fine to coarse; tan motteling. Sas odar. olive-green CLAY.
- 11		2	9 24 36		green SAND with gravel, gravel _ greater than 15% with pebbles up
- 12 - 13					to 1/2", moist to wet, sand is
- 14			•		
- 15 - 16 - 17		3	15 29 37		as above, except about 20% gravel with cobbles to 1/2", saturated - grading to a sandy CLAY.
- 18 - 19 20	Lonestar 2/16 sand screw-on cap				bottom of boring

John P. Cummings and Associates P O Box 2847 38750 Paseo Padre Pkwy B-4 Fremont, CA 94536 Well Data Sheet Monitoring Well Sampling

	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
Date):	3/7/4	50/		Well No.:	M	W-1
Proje	ect Name	e: New !	Jenia	1-297-	Project N	o.: <u> </u>	1293002.04
Proje	ect Local	tion:	40th Are	1490	1474		
Poss	sible Cor	ntaminants:_	TAKT	PHO 7	BREA	040	G Mefels (cas
Well	Diamete	er:	2		Well Dep	th:	19.5 ft
							olume: 245al
			л <i>р</i>		·		
			duct: Yesl	No $\cancel{\Sigma}$; if	yes, thickr	ness	
Shee	en: Yes_	<u> </u>	;	Odor: Yes	X_ No_		
	TIME	PURGE VOLUME	CUMULATIVE PURGE	TEMP °F	COND.	рН	COMMENTS
	1140	3,5	3.5 gal	71.5		7.3	3.5 golf
			-				
		·					
Sam	pling Me	thod:	Bailer				10 200
Com	ments:_	Purined	to dyes	at	3.5	allo	m / Ay formbould
Sign	ature:	fer	Klining	···········			
		1 1					

APPENDIX B



Attention:	Mr. John P. Cummings John P. Cummings & Associates P.O. Box 2847 Fremont, CA 94536-2847	Date Sampled: Date Received: Date Analyzed: Date Analyzed:	Mar 4, 1994 Mar 9, 1994 Mar 18, 1994 Mar 11, 1994	TPHg & BTEX TPHdiesel
Project #:	0293002.0T	Project Name:	NU Genico	
Client ID:	MW-1-5'	LAB ID:	ST94-03-130A	TPHg & BTEX
Matrix:	Soil	Dilution: 1:	ST94-03-131A 20	TPHdiesel TPHg & BTEX
Name		Amount	Detection Limit	Units
Benzene		ND *	0.10	ug/g
Toluene		ND *	0.10	ug/g
Ethylbenzene	9	0.19	0.10	ug/g
Xylenes		0.16	0.10	ug/g
TPHgas		110 *	20	ug/g
TPHdiesel		ND	1.0	ug/g
Surrogate %	Recovery of Trifluorotoluene =	107%		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = ug/g = micrograms per gram

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

NR = Analysis not requested

* Weathered Product

R L James, Principal Chemist

Mar 21, 1994

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORN A DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY

(Certification No. 1614)



Attention:	Mr. John P. Cummings John P. Cummings & Associates P.O. Box 2847 Fremont, CA 94536-2847	Date Sampled: Date Received: Date Analyzed: Date Analyzed:		TPHg & BTEX TPHdiesel
Project #:	0293002.0T	Project Name:	NU Genico	
Client ID:	MW-1-10'	LAB ID:	ST94-03-134A	TPHg & BTEX
Matrix:	Soil	Dilution: 1:	ST94-03-135A 100	TPHdiesel TPHg & BTEX
Name		Amount	Detection Limit	Units
Benzene		ND	0.50	ug/g
Toluene		2.8	0.50	ug/g
Ethylbenzene	e	6.9	0.50	ug/g
Xylenes		11	0.50	ug/g
TPHgas		1000	100	ug/g
, TPHdiesel		33 *	1.0	ug/g
Surrogate %	Recovery of Trifluorotoluene =	**		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = ug/g = micrograms per gram

ND = Not Detected Compound(s) may be present at concentrations below the detection limit.

NR = Analysis not requested

-

Date

R L James Principal Chemist

SPARGER TECHNOLOGY ANALYTICAL LABORATORY INCIDES OF CARTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY (Centrosion No. 1814).

^{*} High motor oil was detected.

^{**} Matrix Interference



Attention:	Mr. John P. Cummings John P. Cummings & Associates P.O. Box 2847 Fremont, CA 94536-2847	Date Sampled: Date Received: Date Analyzed: Date Analyzed:		TPHg & BTEX TPHdiesel
Project #:	0293002.0T	Project Name:	NU Genico	-
Client ID:	B-3-5'	LAB ID:	ST94-03-138A ST94-03-139A	TPHg & BTEX TPHdiesel
Matrix:	Soil	Dilution: 1:	1	iri idiesei
Name		Amount	Detection Limit	Units
Benzene	,	ND	0.005	ug/g
Toluene		ND	0.005	ug/g
Ethylbenzene	e	ND	0.005	ug/g
Xylenes		ND	0.005	ug/g
TPHgas		ND	1.0	ug/g

ND

83%

1.0

ppb = parts per billion = ug/kg = micrograms per kilogram

Surrogate % Recovery of Trifluorotoluene =

ppm= parts per million = ug/g = micrograms per gram

ND = Not Detected Compound(s) may be present at concentrations below the detection limit

NR = Analysis not requested

TPHdiesel

R L James, Principal Chemist

Mar 21, 1994

ug/g

Date



Attention:	Attention: Mr. John P. Cummings John P. Cummings & Associates P.O. Box 2847 Fremont, CA 94536-2847		Mar 4, 1994 Mar 9, 1994 Mar 16, 1994 Mar 11, 1994	TPHg & BTEX TPHdiesel
Project #:	0293002.0T	Project Name:	NU Genico	
Client ID:	B-3-9.5'	LAB ID:	ST94-03-142A	TPHg & BTEX
Matrix:	Soil	Dilution: 1:	ST94-03-143A 200 Detection	TPHdiesel TPHg & BTEX
Name		Amount	Limit	Units
Benzene		ND **	1.0	ug/g
Toluene		1.8	1.0	ug/g
Ethylbenzen	e	1.4	1.0	ug/g
Xylenes		5.8	1.0	ug/g
TPHgas		800 **	200	ug/g
TPHdiesel		31 *	1.0	ug/g
Surrogate %	Recovery of Trifluorotoluene =	113%		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = ug/g = micrograms per gram

ND = Not Detected Compound(s) may be present at concentrations below the detection limit.

NR = Analysis not requested

R L James, Principal Chemist

Mar 21, 1994

Date

^{*} High motor oil was detected.

^{**} Weathered Product

8020/8015 Modified Analysis Report

Attention:	Mr. John P. Cummings John P. Cummings & Associates P.O. Box 2847 Fremont, CA 94536-2847	Date Sampled: Date Received: Date Analyzed: Date Analyzed:	• • • • • •	TPHgas & BTEX TPHdiesel
Project #:	0293002.0T	Project Name:	NU Genico	
Client ID:	MW-1	LAB ID:		TPHgas & BTEX
Matrix:	Water	Dilution:	ST94-03-147A 1:50	TPHdiesel TPHgas & BTEX
Name	Amount		Detection Limit	Units
Benzene	3200		1.5	ug/L
Toluene	740		1.5	ug/L
Ethylbenzene	1800		1.5	ug/L
Xylenes	2100		1.5	ug/L
TPHgas	64000		2500	ug/L
TPHdiesel	4600 *		50	ug/L
Surrogate % R	Recovery of Trifluorotoluene =	100%)	

ppb = parts per billion = ug/L = micrograms per Liter

ppm= parts per million = ug/mL = micrograms per milliliter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit

NR = Analysis not requested.

* High motor oil was detected.

R L James, Principal Chemist

Mar 21, 1994 Date

SPARGER TECHNOLOGY ANALYTICAL LABORATORY INCI IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTHISERVICES AS A HAZARDOUS WASTE TESTING LABORATORY (Certification No. 1614).



8020 Modified Laboratory Control Spike (LCS) & Laboratory Control Spike Duplicate (LCSD) BTEX Analysis Report

Attention:

Mr. John P. Cummings

Date Sampled:

Mar 7, 1994

John P. Cummings & Associates

Date Received: Mar 9, 1994

P.O. Box 2847

Fremont, CA 94536-2847

....

Project ID:

0293002.0T

Project Name: NU Genico

Client ID:

LCS/LCSD

LAB ID:

ST94-03-018 LCS ST94-03-018 LCSD

Matrix: Soil

Dilution:

Name	Conc. Spike Added	Sample Result	LCS Result	LCSD Result	Units	LCS % Recovery	LCSD % Recovery	% RPD Recovery
Benzene	30 ppb	ND	30	30	ug/kg	100%	100%	0%
Toluene	30 ppb	ND	31	30	ug/kg	103%	100%	3%
Ethylbenzene	30 ppb ·	ND	31	30	ug/kg	103%	100%	3%
Xylenes	30 ppb	ND	29	31	ug/kg	97%	103%	7%
Surrogate % R	ecovery of Trif	luorotoluer	ıe =	100%	LCS	97%	6 LCSD	

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = ug/g = micrograms per gram

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit

R L James Principal Chemist

Mar 21, 1994

Date Reported

SPARGER TECHNOLOGY ANALYTICAL LABORATORY INCI IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY (Certification No. 1614)



8020 Modified Matrix Spike (MS) & Matrix Spike Duplicate (MSD) BTEX Analysis Report

Attention:

Mr. John P. Cummings

Accomintos De

Date Sampled:

Mar 7, 1994

John P. Cummings & Associates

Date Received:

Mar 9, 1994

P.O. Box 2847

Fremont, CA 94536-2847

0293002.0T

Project Name:

NU Genico

Client ID:

Project ID:

MS/MSD

LAB ID:

ST94-03-018 MS

ST94-03-018 MSD

Matrix:

Soil

Dilution:

Conc. Spike Added	Sample Result	MS Result	MSD Result	Units	MS % Recovery	MSD % Recovery	% RPD Recovery
30 ppb	ND	29	30	ug/kg	97%	100%	3%
30 ppb	ND	29	30	ug/kg	97%	100%	3%
30 ppb	ND	29	30	ug/kg	97%	100%	3%
30 ppb	ND	29	30	ug/kg	97%	100%	3%
anavany of Trif			070(140	070	MOD	
	30 ppb 30 ppb 30 ppb 30 ppb 30 ppb	Spike Added Result 30 ppb ND 30 ppb ND 30 ppb ND 30 ppb ND 30 ppb ND	Spike Added Result Result 30 ppb ND 29 30 ppb ND 29 30 ppb ND 29	Spike Added Result Result Result 30 ppb ND 29 30 30 ppb ND 29 30	Spike Added Result Result Result Units 30 ppb ND 29 30 ug/kg 30 ppb ND 29 30 ug/kg	Spike Added Result Result Units Recovery 30 ppb ND 29 30 ug/kg 97% 30 ppb ND 29 30 ug/kg 97%	Spike Added Result Result Units Recovery Recovery 30 ppb ND 29 30 ug/kg 97% 100% 30 ppb ND 29 30 ug/kg 97% 100% 30 ppb ND 29 30 ug/kg 97% 100% 30 ppb ND 29 30 ug/kg 97% 100%

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = ug/g = micrograms per gram

ND = Not Detected Compound(s) may be present at concentrations below the detection limit.

R L James Principal Chemist

Mar 21, 1994

DATE

SPARGER TECHNOLOGY ANALYTICAL LABORATORY INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY

(Certification No. 1814)



8015 Modified Laboratory Control Spike (LCS) & Laboratory Control Spike Duplicate (LCSD) TPHdiesel Analysis Report

Attention:

Mr. John P. Cummings

John P. Cummings & Associates

P.O. Box 2847

Fremont, CA 94536-2847

Date Sampled:

Mar 7, 1994

Date Received:

Mar 9, 1994

Date Analyzed:

Mar 11, 1994

Project ID:

0293002.0T

Project Name:

NU Genico

Client ID:

LCS/LCSD

LAB ID:

ST94-03-011 LCS

ST94-03-011 LCSD

Matrix:

Soil

Dilution:

Name	Conc. Spike Added	Sample Result	LCS Result	LCSD Result	Units	LCS % Recovery	LCSD % Recovery	% RPD Recovery
TPHdiesel	125 ppm	ND	129	128	ug/g	103%	102%	1%

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = ug/g ≈ micrograms per gram

ND = Not Detected Compound(s) may be present at concentrations below the detection limit

R L James, Principal Chemist

Mar 21, 1994

Date Reported



Metals (STLC) **EPA Method: WET**

Attention:

Mr. John P. Cummings

John P. Cummings & Assoc.

P.O. Box 2847

Fremont, CA 94536-2847

Date Sampled:

Mar 4, 1994

Date Received: Date Analyzed:

Mar 9, 1994

Mar 14, 1994

Project #:

0293002.0T

Project Name:

NU Genico

Client ID:

MVV-1-5'

LAB ID:

ST94-03-133A

Matrix:

Soil

Dilution:

1:4

Name	Amount	Limit	Units
Cadmium (Cd)	ND	0.05	mg/L
Chromium (Cr)	0.235	0.1	mg/L
Lead (Pb)	ND	1.0	mg/L
Nickel (Ni)	3.53	0.4	mg/L
Zinc (Zn)	0.365	0.2	mg/L

ppm= parts per million = mg/Kg = milligram per Liter

R L James Principal Chemist

Mar 16, 1994

SPARGER TECHNOLOGIC HNALKTICAL LABORATORY LIVE IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZAROOUS WASTEMEST NG LASORATORY Cert libation No. 1014,

ND = Not Detected Compound(s) may be present at concentrations below the detection limit



Metals (STLC) **EPA Method: WET**

Attention:

Project #:

Client ID:

Mr. John P. Cummings

John P. Cummings & Assoc.

P.O. Box 2847

Fremont, CA 94536-2847

0293002.0T

MW-1-10'

Project Name:

Date Sampled:

Date Received:

Date Analyzed:

NU Genico

ST94-03-137A

Mar 4, 1994

Mar 9, 1994

Mar 14, 1994

Matrix:

Soil

Dilution:

LAB ID:

1:4

Name	Amount	Limit	Units
Cadmium (Cd)	0.135	0.05	mg/L
Chromium (Cr)	0.635	0.1	mg/L
Lead (Pb)	2.18	1.0	mg/L ¹
Nickel (Ni)	3.28	0.4	mg/L
Zinc (Zn)	0.48	0.2	mg/L

ppm= parts per million = mg/Kg = milligram per Liter

R L James Principal Chemist

Mar 16 1994

Date Reported

SPARGER TECHNOLOGY ANALYTICAL LABORATORY INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERICES AS A HAZARDOUS WASTE TESTING LASCRATORY Certication No. 1614

ND = Not Detected Compound(s) may be present at concentrations below the detection limit



Metals (STLC) **EPA Method: WET**

Attention:

Mr. John P. Cummings

John P. Cummings & Assoc.

P.O. Box 2847

Fremont, CA 94536-2847

Date Sampled:

Date Analyzed:

Mar 4, 1994 Date Received:

Mar 9, 1994

Mar 14, 1994

Project #:

0293002.0T

Project Name:

NU Genico

Client ID:

B-3-51

LAB ID:

ST94-03-141A ·

Matrix:

Soil

Dilution:

1:4

		r	
Name	Amount	Limit	Units .
Cadmium (Cd)	ND .	0.05	mg/L
Chromium (Cr)	0.285	0.1	mg/L
Lead (Pb)	ND	1.0	mg/L
Nickel (Ni)	3.56	0.4	mg/L
Zinc (Zn)	0.36	0.2	mg/L

ppm= parts per million = mg/Kg = milligram per Liter

R L James Principal Chemist

Mar 16 1994

Date Reported

ND = Not Detected Compound(s) may be present at concentrations below the detection limit



Metals (STLC) EPA Method: WET

Attention: Mr. John P. Cummings

John P. Cummings & Assoc.

P.O. Box 2847

Fremont, CA 94536-2847

Date Sampled:

Mar 4, 1994

Date Received:

Mar 9, 1994

Date Analyzed: Mar 14, 1994

Project #:

0293002.0T

Project Name:

NU Genico

Client ID:

B-3-9.5'

LAB ID:

ST94-03-145A

Matrix:

Soil

Dilution:

1:4

Amount	Limit	Units
ND	0.05	mg/L
0.265	0.1	mg/L
ND	1.0	mg/L
0.76	0.4	mg/L
0.83	0.2	mg/L
	ND 0.265 ND 0.76	ND 0.05 0.265 0.1 ND 1.0 0.76 0.4

ppm= parts per million = mg/Kg = milligram per Liter

R L James Principal Chemist

Mar 16 1994

Date Reported

EPHRICER TECH (CLOBY A HELYTICHE CHACRATORY INC.) SICERT RISC BY THE STATE OF CAUTOR IN OSPHRITITE IY OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY Gentration No. 1614

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit





Metals (STLC) **EPA Method: WET**

Attention:

Project #:

Mr. John P. Cummings

John P. Cummings & Assoc.

P.O. Box 2847

Fremont, CA 94536-2847

0293002.0T

Client ID:

MW-1

LAB ID:

Date Sampled:

Date Received:

Date Analyzed:

Project Name:

NU Genico

ST94-03-149A

Mar 7, 1994

Mar 9, 1994

Mar 14, 1994

Matrix:

Water

Dilution:

Name	Amount	Limit	Units
Cadmium (Cd)	- ND	0.05	mg/L
Chromium (Cr)	ND	0.1	mg/L
Lead (Pb)	ND	1.0	rng/L
Nickel (Ni)	0.45	0.4	mg/L
Zinc (Zn)	0.345	0.2	mg/L

'ppm= parts per million = mg/Kg = milligram per Liter

NOT Detected. Compound(s) may be present at concentrations below the detection limit

R L James Principal Chemist

Mar 16, 1994



Metals, CAM 5 (STLC) MS / MSD Recoveries

Attention:

Mr. John P. Cummings

John P. Cummings & Assoc.

P.O. Box 2847

Fremont, CA 94536-2847

Date Sampled:

Date Received: Date Analyzed:

Mar 4, 1994 Mar 9, 1994

Mar 14, 1994

Project #:

0293002.0T

Project Name:

NU Genico

Client ID:

MS/MSD

LAB ID:

ST94-03-014 MS

ST94-03-014 MSD

Matrix:

Soil

Dilution:

Units: (ma/L)

							Omis. (mg/L)
Element	Sample Conc.	Spike Conc.	MS	MS % Recovery	MSD	MSD %	% PSD
CICITOTIC	OONO.	Conc.	IVIO	Recovery	IVIOD	Recovery	RSD
Cadmium (Cd)	ND .	2.5	2.58	103%	2.44	98%	5%
Chromium (Cr)	0.235	2.5	2.92	107%	2.76	101%	6%
Lead (Pb)	ND	12.5	12.1	97%	11.5	92%	5%
Nickel (Ni)	3.53	6.25	10.1	105%	9.79	100%	5%
Zinc (Zn)	0.365	1.25	1.71	108%	1.61	100%	8%

ppm= parts per million = mg/L = milligram per Liter

ND = Not Detected Compound(s) may be present at concentrations below the detection limit

NR = Not Requested

P. L. James Principal Chemist

Mar 16 1994

Date Reported



Metals, CAM 5 (STLC) LCS / LCSD Recoveries

Attention:

Mr. John P. Cummings

John P. Cummings & Assoc.

P.O. Box 2847

Fremont, CA 94536-2847

Date Sampled:

Date Received:

Mar 4, 1994

Mar 9, 1994

Date Analyzed:

Mar 14, 1994

Project #:

0293002.0T

Project Name:

NU Genico

Client ID:

LCS/LCSD

LAB ID:

ST94-03-014:LCS ST94-03-014 LCSD

Matrix:

Soil

Dilution:

Units : /ma/L)

					Ui	iiis : (mg/L)
	Spike		LCS %		LCSD %	%
Element	Conc.	LCS	Recovery	LCSD	Recovery	RSD
Cadmium (Cd)	2.5	2.28	91%	2.33	93%	2%
Chromium (Cr)	2.5	2.46	98%	2.42	97%	2%
Lead (Pb)	12:5	13.0	104%	12.7	102%	2%
Nickel (Ni)	6.25	5.72	92%	5.66	91%	1%
Zinc (Zn)	1.25	1.16	93%	1.17	94%	1%
•						

ppm= parts per million = mg/L = milligram per Liter

ND = Not Detected Compound(s) may be present at concentrations below the detection limit.

NR = Not Requested

R L James Principal Chemist

Mar 16 1994

Date Reported



5520 Modified Analysis Report

Attention: Mr. John P. Cummings

Date Sampled:

Mar. 4, 1994

John P. Cummings & Assoc.

Mar. 9, 1994

P.O. Box 2847

Date Received: - Date Analyzed: - Mar. 10, 1994

Fremont, CA 94536-2847

Project #:

0293002.0T

Project Name:

NU Genico

Client ID:

MW-1-5'

LAB ID:

ST94-03-132A

Matrix:

Soil

Dilution:

Detection

<u>Name</u>	Amount	Limit	Units	_
Oil & Grease	ND	50	ug/g	

ppb = parts per billion = ug/kg = microgram per kilogram

ppm= parts per million = ug/g = microgram per gram

ND = Not Detected Compound(s) may be present at concentrations below the detection limit

R L James Principal Chemist

Mar 10 1994 Date Reported

SPARGER TECHNOLOGY ANALYTICAL LABORATORY INCIDIS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A MAZARDOUS WASTE TESTING LABORATORY

Cer calchilo 1814



5520 Modified Analysis Report

Attention: Mr. John P. Cummings

John P. Cummings & Assoc.

P.O. Box 2847

Fremont, CA 94536-2847

Date Sampled:

Mar. 4, 1994

Date Received:

Mar. 9, 1994

Date Analyzed:

Mar. 10, 1994

Project #:

0293002.0T

Project Name:

NU Genico

Client ID:

MVV-1-10'

LAB ID:

ST94-03-136A

Matrix:

Soil

Dilution:

1:

Name	Amount	Detection Limit	Units
Oil & Grease	1200	50	ug/g

ppb = parts per billion = ug/kg = microgram per kilogram

ppm= parts per million = ug/g = microgram per gram

ND = Not Detected Compound(s) may be present at concentrations below the detection limit

R L James, Principal Chemist

Mar 10, 1994

Date Reported

SPARGER TECHNOLOGY ANALYTICAL LABORATORY INCIDS GERTIFIED BY THE STATE OF CALIFORN, A CEPHRYMENT OF HEALTHISERY CES AS A HAZARDOUS MASTE TESTING LABORATORY Centication No. 1814



5520 Modified Analysis Report

Attention: Mr. John P. Cummings

John P. Cummings & Assoc.

P.O. Box 2847

Fremont, CA 94536-2847

Project #: 0293002.0T

Client ID: B-3-5'

Matrix:

Soil

Date Sampled:

Date Received:

Date Analyzed:

Mar. 4, 1994 Mar. 9, 1994

Mar. 10, 1994

Project Name: NU Genico

LAB ID:

ST94-03-140A

Dilution: 1:

Detection

	Detection			
Name	Amount	Limit	Units	
Oil & Grease	ND	50	ug/g	

ppb = parts per billion = ug/kg = microgram per kilogram

ppm= parts per million = ug/g = microgram per gram

ND = Not Detected Compound(s) may be present at concentrations below the detection limit

R L James Principal Chemist

Mar 10 1994

Dare Reported

SPARGER TECHNOLOGY AVALYTICAL LABORATORY INCIDED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERNICES HS A HAZAROOUS WASTE TESTING LABORATORY 3-1 39 3 6 1-14



5520 Modified Analysis Report

Attention: Mr. John P. Cummings

John P. Cummings & Assoc.

Mar. 4, 1994

P.O. Box 2847

Date Sampled: Date Received: Mar. 9, 1994

Date Analyzed:

Mar. 10, 1994

Fremont, CA 94536-2847

Project Name:

NU Genico

Client ID:

Project #:

B-3-9.5'

0293002.0T

LAB ID:

ST94-03-144A

Matrix:

Soil

Dilution:

1:

		Detection		
<u>Name</u>	Amount	Limit	Units	
Oil & Grease	550	50	ug/g	

ppb = parts per billion = ug/kg = microgram per kilogram

ppm= parts per million = ug/g = microgram per gram

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit

R L James Principal Chemist

Mar 10, 1994

Date Reported



5520 Modified Analysis Report

Attention:

Mr. John P. Cummings

Date Sampled:

Mar 7, 1994

John P. Cummings & Assoc. Date Received:

Mar 9, 1994

P.O. Box 2847

0293002.0T

Date Analyzed:

Mar 10, 1994

Fremont, CA 94536-2847

Project Name:

NU Genico

Client ID:

Project #:

MW-1

LAB ID:

ST94-03-148A

Matrix:

Water

Dilution:

1: 1

Name	` Amount	Detection Limit	Units	
Oil & Grease	360	50	ug/L	

ppb = parts per billion = ug/L = micrograms per Liter

R L James Principal Chemist

Mar 10 1994

Date Reported

SPARGER TECHNOLOGY ANALYTICAL LASCIPATORY IN DISIGERTIA ED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS MASTE TESTING LABORATORY Cemilica on No. 1614,

ppm= parts per million = ug/mL = micrograms per milliliter

ND = Not Detected Compound(s) may be present at concentrations below the detection limit

John P. Cummings & Associates

Environmental Consultants

CHAIN OF CUSTODY P8192 PO Box 2847 Ph. (510) 505-0722 Fremont, CA 94536-2847 Laboratory: Fax (510) 791-3306 Sampler: J. Al7 Project Name: NU GENICO Contact: Date: Analyses Requested 601/8010 Date/Time Matrix Container Sample I.D. Lab. # Sampled Desc. No. of | Type Comments 1. MW-1-5/3/4 AMISON 2. MW-1-10 11 T. 3/4 PM 11 u te 5. 6. 7. 8. 9. 10. Relinquished by: 10 ato: 3/4/94 Time: 18:02 Received by: Time: KOL Relinquished by: |Date:5|9/94|Time://;\ Received by: Time: //:45 an Relinquished by: Time: Received by: Date: Time: Nam Turnaround Time: Additional 🛪 106 by GC Comments: Chromium Page o f

John P. Cummings & Associates

Page \ of

Environmental Consultants Pf > PCHAIN OF CUSTODY 3/38 P.O. Box 2847 Ph. (510) 505-0722 Laboratory: Fremont, CA 94536-2847 Fax (510) 791-3306 Sampler: WC Contact: Project Name: NO. UZ 93002.04 Contact: Date: Analyses Requested 78HIDIesel 601/8010 Matrix Container Sample 1.D. Lab. + Desc. No. of | Type Comments 3/2 1. MW-1 1153 X 2. My 11 11 X 3. MW-1 4 u X 4. M(LU-) h h 5. 7. 8. 9. 10. Relinquished by Time: 1/45 Received by: Date: 3/9/90 Time: 11.45 00 Relinquished by: Date: Time: Received by: Date: Time: Relinquished by: Date: Time: Received by: Date: Time: Turnaround Time; Mornol Additional

Comments: