

Chevron U.S.A. Inc.

2410 Camino Ramon, San Ramon, California • Phone (415) 842-9500 Mail Address: P.O. Box 5004, San Ramon, CA 94583-0804

RECEIVED

MAY 28 1991 A.C.W.D.

ENGINEERING DEPT.

Marketing Operations

R. B. Bellinger Manager, Operations S. L. Patterson Area, Manager, Operations C. G. Trimbach Manager, Engineering

May 23, 1991

Mr. Scott Seery Alameda County Environmental Health 80 Swan Way, Room 200 Oakland, California 94621

Re: Former Chevron Station #9-2960 2416 Grove Way/Redwood Road Castro Valley, CA

Dear Mr. Seery:

Enclosed we are forwarding the Quarterly Groundwater Sampling Report dated May 16, 1991, conducted by our consultant GeoStrategies, Inc. for the above referenced site.

As indicated in the report, groundwater samples from wells C-2 through C-7 were analyzed for total petroleum hydrocarbons as gasoline (TPH-G) and BTEX. Benzene concentrations were detected at levels ranging from ND to 1500 ppb. These levels remain consistent with previous sampling results. Phase-separated hydrocarbons were observed in Well C-1 with a measured thickness of .03 feet. Approximately 53 gallons of phase-separated hydrocarbons were removed this quarter. Purging of the phase-separated hydrocarbons will continue until a dedicated recovery system can be installed.

We are currently evaluating the remedial approach we will propose to take at the above referenced site. A work plan will be prepared and forwarded to your office no later than June 26, 1991.

If you have any questions or comments please do not hesitate to contact me at (415) 842-9581.

CHEVRON U.S.A. INC:

Very truly yours,

Nancy Vukelich

Environmental Engineer

Enclosure

cc: Mr. Lester Feldman, RWQCB-Bay Area Ms. Bette Brummett-Owen File (#9-2960Q4 Listing)

Jerri Garber First Presbyterian Church 2490 Grove Way Castro Valley, CA 95646



GeoStrategies Inc.

SITE UPDATE

Former Chevron Service Station #2960 2416 Grove Way Castro Valley, California

MAY 1 7 1991



GeoStrategies Inc.

2140 WEST WINTON AVENUE HAYWARD, CALIFORNIA 94545

GETTLER-RYAN INC.

GENERAL CONTRACTORS

(415) 352-4800

May 16, 1991

Gettler-Ryan Inc. 2150 West Winton Avenue Hayward, California 94545

Attn:

Mr. Jeff Monroe

Re:

SITE UPDATE

Former Chevron Service Station #2960

2416 Grove Way

Castro Valley, California

Gentlemen:

This Site Update report was prepared by GeoStrategies Inc. (GSI) and presents the results of the second quarterly ground-water sampling for 1991 at the above referenced location (Plate 1). Ground-water sampling was performed on April 1, 1991 by Gettler-Ryan Inc. (G-R) in accordance with the scope of work requested by Chevron U.S.A. Inc. Field work and laboratory analyses were performed to comply with current State of California Water Resources Control Board guidelines.

CURRENT QUARTER SAMPLING RESULTS

Potentiometric Data

Prior to ground-water sampling, depth to ground-water levels were measured in each well using an electronic oil-water interface probe. Static ground-water levels were measured from the surveyed top of the well box and recorded to the nearest ± 0.01 foot. Corresponding elevations referenced to mean sea level (MSL) are presented in Table 1. Water-level data were used to construct a potentiometric map (Plate 1). Shallow ground-water flow is to the west-southwest at a calculated hydraulic gradient of 0.01.

GeoStrategies Inc.

Gettler-Ryan Inc. May 16, 1991 Page 2

Separate-phase Hydrocarbon Measurements

monitored the of was for presence separate-phase hydrocarbons using a portable oil-water interface probe. A clear bailer interface probe acrylic was used to confirm results. Separate-phase hydrocarbons were observed in Well C-1 at 0.03 feet in measured thickness and were not detected in Wells C-2 through C-7.

Ground-water Analytical Data

Ground-water samples were collected on April 1, 1991 by G-R. Field monitoring data collected during sampling are presented in Table 1. The samples were analyzed for Total Petroleum Hydrocarbons calculated as Gasoline (TPH-Gasoline) according to EPA Method 8015 (Modified) and Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) according to EPA Method 8020. Samples were analyzed by Clayton Environmental Consultants (Clayton), a State-certified environmental laboratory located in Pleasanton, California.

A summary of current and available historical chemical analytical data is presented in Table 2. Clayton analytical data and Chain-of-Custody forms are presented in Appendix A.

Ouality Control

Quality control (QC) samples for this quarter's sampling included a duplicate sample and a trip blank. The duplicate sample was collected as a split (second) sample to assess laboratory analytical precision. The trip blank was prepared in the laboratory using organic free to evaluate laboratory and field handling water The results of OC sample analyses procedures of samples. presented in Table 2.

INTERIM RECOVERY

Recovery of separate-phase hydrocarbons from Well C-1 was performed twice this quarter. Pumping and bailing of separate-phase hydrocarbons from Well C-1 was performed on April 1 and May 6, 1991, by G-R. Approximately 53 gallons of separate-phase hydrocarbons and groundwater were removed from Well C-1 during this quarter.

GeoStrategies Inc.

Gettler-Ryan Inc. May 16, 1991 Page 3

If you have any questions, please call.

GeoStrategies Inc. by,

Robert C. Mallory

Geologist

David H. Peterson Senior Geologist

C.E.G. 1186

CERTIFIED

ENGINEERING

RCM/DHP/mlg

Potentiometric Map Plate 1.

Appendix A: Laboratory Analytical Report

TABLE 1

FIELD MONITORING DATA

WELL NO.	MONITORING DATE	CASING DIA.	TOTAL WELL DEPTH (FT)	WELL ELEV. (FT)	DEPTH TO WATER (FT)	PRODUCT THICKNESS (FT)	STATIC WATER ELEV. (FT)	PURGED WELL VOLUMES	рH	TEMPERATURE (F)	CONDUCTIVITY (u MHOS/CM)
C-1	01-Apr-91	3	****	153.36	16.91	0.03	136.47	****	••••	****	••••
C-2	01-Apr-91	3	28.9	151.84	15.08		136.76	5	6.90	66.4	2330
C-3	01-Apr-91	3	30.5	154.13	17.59		136.54	5	7.01	67.0	2120
C-4	01-Apr-91	3	29.2	156.00	19.03	••••	136.97	5	6.67	66.5	1076
C-5	01-Apr-91	2	28.7	153.38	16.31		137.07	5	6.94	66.1	1539
C-6	01-Apr-91	2	27.9	152.84	17.11	****	135.73	5	7.01	67.0	1595
c-7	01-Apr-91	2	32.4	155.34	20.00		135.34	5	7.06	67.1	1533

Notes: 1. Static water elevations referenced to Mean Sea Level (MSL).

^{2.} Physical parameter measurements represent stabilized values.

^{3.} pH values reported in pH units.

^{4.} Static water-levels corrected for floating product (conversion factor = 0.80).

TABLE 2

HISTORICAL GROUND-WATER QUALITY DATABASE

SAMPLE Date	SAMPLE POINT	TPH·G (PPB)	BENZENE (PPB)	TOLUENE (PPB)	(PPB)	XYLENES (PPB)
23-0ct-86	c·1	37000.	6400.	3700.	••••	4300.
23-Oct-86	C-2	30000.	2700.	1900.		1500.
16-0ct-89	C-2	600	260	34	1.7	41
04-Jan-90	C-5	2600	470	150	23	130
05-Apr-90	C·2	500	280	29	6.3	19
02-Jul <i>-9</i> 0	C-5	2400	670	110	17	76
25-Oct-90	C-2	1300	390	47	9	58
22 · Jan · 91	C-2	2600	680	88	29	130
01-Apr-91	C-2	20000	1500	2200	570	2300
23-0ct-86	c·3	3300.	49.	24.		20.
16-0ct-89	C-3	900	640	4.2	1.6	16
04 - Jan-90	C-3	920	430	7	6	7
05-Apr-90	c-3	930	690	3.4	5.1	4.8
02 - Jul - 9 0	C-3	1700	5 9 0	11	4.8	9.4
25-0ct-90	C-3	750	510	2	6	5
22-Jan-91	C-3	430	260	2	2	5
01-Apr-91	c-3	240	55	0.8	<0.3	0,9
23-0ct-86	C-4	570.	3.	4.		5.
16-0ct-89	C-4	<500	12	1.0	<0.5	0.8
04-Jan-90	C-4	<500	5	<0.5	<0.5	0.9
05-Apr-90	C-4	<50	6.6	<0.5	<0.5	0.7
02-Jul-90	C-4	71	4.1	<0.5	<0.5	<0.5
25 · Oct · 90	C-4	<50	2	<0.5	<0.5	<0.5
22 - Jan - 91	C-4	<50	3	<0.5	<0.5	<0.5
01-Apr-91	C-4	120	12	<0.3	<0.3	<0.4
03-Oct-90	c·5	<50	<0.5	<0.5	<0.5	<0.5
25-Oct-90	C•5	<50	<0.5	<0.5	<0.5	<0.5

TABLE 2

HISTORICAL GROUND-WATER QUALITY DATABASE

SAMPLE Date	SAMPLE POINT	TPH·G (PPB)	BENZENE (PPB)	TOLUENE (PPB)	ETHYLBENZENE (PPB)	XYLENES (PPB)
				======		
09-Nov-90	C-5	<50	<0.5	<0.5	<0.5	<0.5
22-Jan-91	C-5	<50	<0.5	<0.5	<0.5	<0.5
01-Apr-91	C·5	<50	<0.4	<0.3	<0.3	<0.4
03-Oct-90	C-6	<50	<0.5	<0.5	<0.5	<0.5
25-Oct-90	C-6	<50	<0.5	1	<0.5	<0.5
09-Nov-90	C-6	<50	<0.5	<0.5	<0.5	<0.5
22- Jan-91	C-6	<50	<0.5	<0.5	<0.5	<0.5
01-Apr-91	C-6	. <50	<0.4	<0.3	<0.3	<0.4
03-0ct-90	C-7	<50	<0.5	<0.5	<0.5	<0.5
25-0ct-90	C-7	<50	<0.5	1	<0.5	<0.5
09-Nov-90	C-7	<50	<0.5	<0.5	<0.5	<0.5
22-Jan-91	C-7	<50	4	<0.5	<0.5	<0.5
01-Apr-91	c-7	<50	3.4	<0.3	<0.3	<0.4
01-Apr-91	CD-3	240	53	0.7	<0.3	0.7
01-Apr-91	ŤB	<50	<0.4	<0.3	<0.3	<0.4

TABLE 2

HISTORICAL GROUND-WATER QUALITY DATABASE

Current Regional Water Quality Control Board Maximum Contaminant Levels Benzene 1. ppb Xylenes 1750. ppb Ethylbenzene 680. ppb

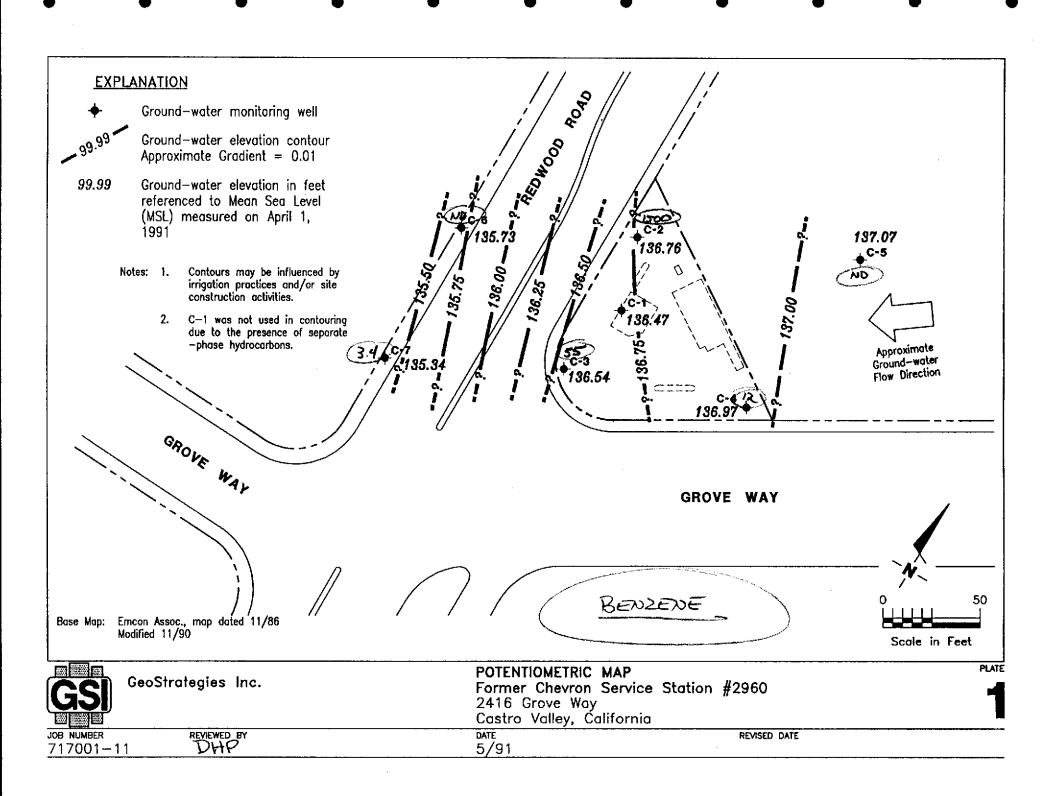
Current DHS Action Levels Toluene 100.0 ppb

TPH-G ≈ Total Petroleum Hydrocarbons calculated as Gasoline

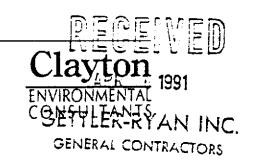
PPB = Parts Per Billion CD = Duplicate Sample TB = Trip Blank

NOTE: 1. DHS Action levels and MCL's are subject to change pending State of California review.

- 2. All data shown as <X are reported as ND (none detected).
- 3. Ethylbenzene and Xylenes were combined prior to October, 1989



1252 Quarry Lane Pieasanion, CA 94566 (415) 426-2600 Fax (415) 426-0106



April 15, 1991

Mr. Tom Paulson GETTLER-RYAN INC. 2150 West Winton Avenue Hayward, CA 94545

> Client Ref. 2960/3170.01 Clayton Project No. 91040.34

Dear Mr. Paulson:

Attached is our analytical laboratory report for the samples received on April 3, 1991. A copy of the Chain-of-Custody form acknowledging receipt of these samples is attached.

Please note that any unused portion of the samples will be disposed of 30 days after the date of this report, unless you have requested otherwise.

We appreciate the opportunity to be of assistance to you. If you have any questions, please contact Maryann Gambino, Client Services Supervisor, at (415) 426-2657.

Sincerely,

Ronald H. Peters, CIH

Director, Laboratory Services

Western Operations

RHP/dt

Attachments



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Results of Analysis for Chevron U.S.A. Inc./Gettler Ryan Inc.

Client Reference: 2960/3170.01 Clayton Project No. 91040.34

Sample Identification: C-2

04/01/91

Lab Number:

9104034-01A

Date Sampled: Date Received:

04/03/91

Sample Matrix/Media:

WATER

Date Prepared: Date Analyzed:

04/10/91 04/10/91

Preparation Method:

EPA 5030

EPA 8015/8020 Analytical Method:

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	1,500	20
Toluene	108-88-3	2,200	20
Ethylbenzene	100-41-4	570	20
Xylenes	1330-20-7	2,300	20
Gasoline		20,000	3,000

Not detected at or above limit of detection ND Information not available or not applicable

^{*} Detection limits increased due to dilution necessary for quantitation.



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Results of Analysis for

Chevron U.S.A. Inc./Gettler Ryan Inc.

Client Reference: 2960/3170.01 Clayton Project No. 91040.34

Sample Identification: C-3

Lab Number: 9104034-02A

Sample Matrix/Media: WATER

Preparation Method: EPA 5030

Date Sampled: 04/01/91

Date Received: 04/03/91

Date Prepared: 04/10/91

Analytical Method: EPA 8015/8020

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	5 5	0.4
Toluene	108-88-3	0.8	0.3
Ethylbenzene	100-41-4	ND	0.3
Xylenes	1330-20-7	0.9	0.4
Gasoline		240	50

ND Not detected at or above limit of detection -- Information not available or not applicable



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Results of Analysis for

Chevron U.S.A. Inc./Gettler Ryan Inc.

Client Reference: 2960/3170.01 Clayton Project No. 91040.34

Sample Identification: C-4

Date Sampled:

04/01/91

Lab Number:

9104034-03A

Date Received:

04/03/91

Date Prepared:

04/11/91

Sample Matrix/Media: Preparation Method:

WATER EPA 5030

Date Analyzed:

04/11/91

Analytical Method:

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline		•	
Benzene	71-43-2	12	0.4
Toluene	108-88-3	ND	0.3
Ethylbenzene	100-41-4	ND	0.3
Xylenes	1330-20-7	ND	0.4
Gasoline		120	50

Not detected at or above limit of detection ND Information not available or not applicable



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Results of Analysis for Chevron U.S.A. Inc./Gettler Ryan Inc.

Client Reference: 2960/3170.01

Clayton Project No. 91040.34

Sample Identification: C-5

04/01/91 Date Sampled: Date Received: 04/03/91

Lab Number: Sample Matrix/Media: 9104034-04A WATER

04/11/91 Date Prepared:

Preparation Method:

EPA 5030

Date Analyzed: 04/11/91

Analytical Method: EPA 8015/8020

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			,
Benzene	71-43-2	ND	0.4
Toluene	108-88-3	ND	0.3
Ethylbenzene	100-41-4	ND	0.3
Xylenes	1330-20-7	ND	0.4
Gasoline		ND	50

Not detected at or above limit of detection ND Information not available or not applicable



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Results of Analysis for Chevron U.S.A. Inc./Gettler Ryan Inc.

Client Reference: 2960/3170.01 Clayton Project No. 91040.34

Sample Identification: C-6
Lab Number: 9104034-05A
Sample Matrix/Media: WATER
Preparation Method: EPA 5030
Date Sampled: 04/01/91
Date Received: 04/03/91
Date Prepared: 04/11/91

Analytical Method: EPA 8015/8020

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.4
Toluene	108-88-3	ND	0.3
Ethylbenzene	100-41-4	ND	0.3
Xylenes	1330-20-7	ND	0.4
Gasoline		ND	50

ND Not detected at or above limit of detection -- Information not available or not applicable



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Results of Analysis for Chevron U.S.A. Inc./Gettler Ryan Inc.

Client Reference: 2960/3170.01 Clayton Project No. 91040.34

Sample Identification: C-7

Date Sampled:

04/01/91 04/03/91

Lab Number:

9104034-06A

Date Received:

04/11/91

Sample Matrix/Media: Preparation Method:

WATER EPA 5030 Date Prepared: Date Analyzed:

04/11/91

Analytical Method:

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	3.4	0.4
Toluene	108-88-3	ND	0.3
Ethylbenzene	100-41-4	ND	0.3
Xylenes	1330-20-7	ND	0.4
Gasoline		ND	50

Not detected at or above limit of detection ND Information not available or not applicable



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Results of Analysis for Chevron U.S.A. Inc./Gettler Ryan Inc.

Client Reference: 2960/3170.01 Clayton Project No. 91040.34

04/01/91 Sample Identification: CD-3 Date Sampled: Date Received: 04/03/91 9104034-07A Lab Number: 04/11/91 Date Prepared: Sample Matrix/Media: WATER Date Analyzed: 04/11/91

Preparation Method: EPA 5030

EPA 8015/8020 Analytical Method:

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	53	0.4
Toluene	108-88-3	0.7	0.3
Ethylbenzene	100-41-4	ND	0.3
Xylenes	1330-20-7	0.7	0.4
Gasoline		240	50

Not detected at or above limit of detection ND Information not available or not applicable



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Results of Analysis for Chevron U.S.A. Inc./Gettler Ryan Inc.

Client Reference: 2960/3170.01 Clayton Project No. 91040.34

Sample Identification: TRIP BLANK

Date Sampled:

04/03/91

Lab Number:

9104034-08A

Date Received:

04/10/91

Sample Matrix/Media: Preparation Method:

WATER EPA 5030 Date Prepared: Date Analyzed:

04/10/91

Analytical Method:

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline	•		
Benzene	71-43-2	ND	0.4
Toluene	108-88-3	ND	0.3
Ethylbenzene	100-41-4	ND	0.3
Xylenes	1330-20-7	ND	0.4
Gasoline		ND	50

ND Not detected at or above limit of detection Information not available or not applicable



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Results of Analysis for Chevron U.S.A. Inc./Gettler Ryan Inc.

Client Reference: 2960/3170.01 Clayton Project No. 91040.34

Sample Identification: METHOD BLANK

Date Sampled:

Lab Number:

9104034-09A

Date Received:

Sample Matrix/Media: Preparation Method:

WATER EPA 5030 Date Prepared: 04/10/91 Date Analyzed: 04/10/91

Analytical Method:

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.4
Toluene	108-88-3	ND	0.3
Ethylbenzene	100-41-4	ND	0.3
Xylenes	1330-20-7	ND	0.4
Gasoline		ND	50

Not detected at or above limit of detection ND Information not available or not applicable

Quality Assurance Results Summary for

Clayton Lah Number:

9104099-021

Ext./Prep. Method: Date:

04/10/91

Analyst: Std. Source: ٧K W-256 Clayton Project No. 91040, 34

Analytical Method:

EPA8015 8020 04/10/91

Date:

Analysi:

Sample Matrix/Media: Units:

٧ĸ WATER UG/L

Analyte		Sample Result	Spike levet	Matrix Spike Result	MS Recovery (%)	Matrix Spike Duplicate Result	MSD Recovery (%)	Average Recovery (% R)	LCL (% R)	UCL (% R)	RPD (%)	UCL (%RFD)
BENZENE	(PID)	ND	10.0	9.85	99	10.0	100	99	80	120	1. 5	20
ETHYLBENZENE	(111)	ND	10, 0	9. 36	94	9.58	96	95	80	120	2. 3	20
TOLUENE	(014)	ND	10.0	9.80	98	9, 96	100	99	80	120	1. 6	20
TOTAL XYLENE	(FID)	MD	30, 0	28.9	96	29. 4	98	97	80	120	1. 7	20

Octum of Chained Verning 2960 Charron Fuelilly Humber Chevron Contact (Home) Nancy Valk Kelich Facility Addr. .. 2416 GROVE WAY Chavron U.S.A. Inc. Consultant Project Humber 3170.01 Leberotory Hame Superior Clayton
Laboratory Release Humber 2512110 4471550 P.O. BOX 5004 consultant Harro Gettler-Ryan
Address 2150 W. Winton - Hayward San Roman, CA 94583 TAX (415)842-9591 Samples Collected by (Horne) Chais O'Connor Project Contact (Hains) Tom Phulson (Phon.) 783-7500 (Fox Humber) Anolyses To Be Performed Cobserved Discrete ### CAS (8020 + 8015)

| TPH Gissol (8015)

| Chladhated HC (8010)

| Non Chladhated HC (8020) Total Lead
(A)
MATCH
CA.GZ.Pt.Zn.Hi
(ICAP or A) 111 ០០០ Remarks C-2 C-3 C-4 C-5 C-6 C-7 W HCL 1232 1252 1006 1035 851 818 ip Blank 3-15-91 Organization Dut./fime Received By (Signature) Organization Doto/lime Gettle-Pyn Organization 4-191/15:20 REFRIG # 1 Turn Around 11me (Circle Choles) Organization 4-1-91/15-24 Doto/Time Recolved D. (Stymptore) 24 Hea. 48 Hrs. 5 Days Date/Aline
4-34/15. CE Recleved For Laboratory, By (Signature)
4-34/15. CE Turn Sales Organization Doto/Ilma