

# Uriah Inc.

An Environmental Services Company

May 17, 1990

Mr. Ariu Levi Hazardous Materials Specialist Alameda County Health Agency Division of Hazardous Materials Department of Environmental Health 80 Swan Way, Room 200 Oakland, CA 94621

Sampling and Analyses of Bioremediated Soils at 2410-2420 Mariner Square Loop, Alameda, CA

Dear Mr. Levi:

In accordance with protocol set forth within Uriah's proposal for sampling of approximately 9,100 cubic yards of previously excavated soil at the above referenced site, 180 discrete samples were acquired by Uriah staff between April 30 and May 7, 1990. As indicated within Figure #1 (attached) some modifications were made with regard to sampling points in response to variations in soil volumes actually encountered within each treatment bed during the sampling process. The locations of twenty (20) additional samples for leachability analyses are also shown on Figure #1.

As indicated within the copies of certified laboratory analyses attached, the concentrations of analytes were as follows:

#### KEROSENE

Limit of	<u> Highest Level of</u>		
Detection	Variation	Contaminant Detected	Mean
maa 2	N.A.	All samples N.D.	N.A.

ppm...parts per million

N.D....below limits of detection

N.A....not applicable

#### HEALTH RISK ASSESSMENT

#### Hydraulic Oil

The Material Safety Data Sheet (MSDS) provided by the Exxon Corporation for NUTO H 46 Hydraulic Oil (1) and available animal study data indicate that the Acute Oral LD-50 (rat) for this material is greater than 5 g/kg of body weight.

In order to present a "worst case", the NOEL (No Observable Effect Level) for an adult human male exposed to 5 g/kg Hydraulic Oil in drinking water was calculated as follows:

NOEL= Oral LD-50 (rat) x 2.5 L/75 kg (2)

Here, 75 kg is the average weight of an adult human male while 2.5 L is the average volume of drinking water consumed by that individual. By completing the referenced computation, the NOEL for hydraulic oil is found to be 178.6 mg/l/day.

Since both human and animal studies are subject to multiple sources of uncertainty, the calculated NOEL should be adjusted using arbitrary safety factors so that

NOEL (adjusted) = NOEL/F-1\*F-2\*F-3...F-N (2)

Here, "F" is a value from 1 to 10 used to compensate for sources of error. By applying this format, the adjusted NOEL may be calculated as follows:

NOEL (adjusted) = 178.6 mg/l/day/ 10\*1\*1\*5\*1\*10 = 0.36 mg/l/day

Since the solubility of hydraulic oil in water is less than 0.1% at 25 degrees C (1), any residual hydraulic oil present within remediated soil used as backfill could enter groundwater (which appears unlikely in consideration of the results of leachability tests performed), at a maximum concentration of 0.270 ppm- below the adjusted NOEL. This calculation does not, of course, take into consideration that:

- 1) Only a small fraction of the TOGs remaining within the remediated soil are hydraulic oil.
- 2) The 0.270 ppm level is based on the single soil sample which contained such high concentrations of TOG.
- 3) Leachability tests performed were N.D.

#### DIESEL FUEL

Limit of		Highest Level		
Detection	Variation	Contaminant D	etected	Mean
5 ppm	N.D12 pp	m 12 ppm		*3.2 ppm
Of the 29 sa	mples which 13 contain 7 contain 2 contain 1 contain	ntained levels contained dete ed between 5.0 ed between 6.1 ed between 7.1 ed between 8.1 ed between 9.1	ectable le and 6.0 p and 7.0 p and 8.0 p and 9.0 p	vels of pm diesel pm diesel pm diesel pm diesel

#### TOTAL OIL AND GREASE

Limit of	Highest Level of				
Detection	Variation	Cont	aminant Detected	<u>Mean</u>	
maa 01	N.D270	mag	270 ppm	*41.85	mqq

\*It should be noted that analytical protocol was developed during the course of this project (and previously submitted to the County of Alameda and RWQCB) which indicated that only a small fraction of the TOGs detected represented contamination by hydraulic oil, referencing, instead, pieces of asphalt introduced into the soil during the course of demolition of pavement encountered on site.

0 contained between 10.1 and 11.0 ppm diesel 3 contained between 11.1 and 12.0 ppm diesel

```
Of 180 samples, 4 contained levels of TOG <10 ppm.
                                                     Of the
remaining 176 samples, 30 contained 11-20 ppm TOG
                       38 contained 21-30 ppm TOG
                       33 contained 31-40 ppm TOG
                       25 contained 41-50 ppm TOG
                       20 contained 51-60 ppm TOG
                       24 contained 61-100 ppm TOG
                        4 contained 100-150 ppm TOG
                        1 contained 150-200 ppm TOG
                        1 contained >200 (270) ppm TOG
```

In calculating the total volume of TOG present within the 9,100 cubic yards of soil at a mean concentration of 41.85 ppm, one finds approximately 1.16 quarts (TOG) is present. Further, all 20 samples submitted for leachability analyses yielded analytical results below the limits of detection for all analytes.

In further support of the property owner's request that they

be permitted to utilize the remediated soil as engineered fill on site (within the areas excavated), health risk assessment data is attached hereto as Appendix "A".

Should you have any questions regarding the above, or if we may otherwise be of assistance, please contact either of the undersigned at (415) 455-4991.

Sincerely,

Tarlochan Nijjar, M.Sc. Environmental Microbiologist and

Denise A. Rapp Vice-President, Uriah Inc.

TN/DAR:ms

Appendix "A"- Health Risk Assessment
Appendix "B"- Laboratory Data and Chains of Custody

Appendix "C"- Sampling Plan

Mr. Richard Heitt, RWQCB

Mr. John Beery Jr., John Beery Organization

Ms. JeriAnn Alexander, Subsurface Consultants

#### Diesel Fuel

The reported Acute Oral LD-50 for diesel fuel is 7.5 g/kg (2). Utilizing the calculations described above, the NOEL for diesel was found to be 267.9 mg/l/day with an Adjusted NOEL of 0.54 mg/l/day for a lifetime. The highest concentration of residual diesel fuel in the remediated soil was 12 ppm, with a mean concentration of 3.2 ppm; and 83.9% of the samples for final analyses below the limits of detection (5 ppm). In addition, the 20 (additional) samples submitted for leachability analyses were also below the limits of detection.

#### REFERENCES

- 1. Exxon Corp. Material Safety Data Sheet for NUTO H 46 Hydraulic Oil issued 5/19/89, Houston, Texas.
- 2. Hallenbeck, W.H. and Cunningham, K.M., <u>Qualitative Risk</u>
  <u>Assessment for Environmental and Occupational Health</u>,
  <u>Lewis Publications</u>, Inc., 1986, Michigan. pgs. 43-49.

APPENDIX "A"

SAMPLING REPORT
CONCERNING BIOREMEDIATED SOILS
AT
2410-2420 MARINER SQUARE LOOP
ALAMEDA, CA

MAY 17, 1990



# Uriah Inc.

An Environmental Services Company

May 17, 1990

Mr. Ariu Levi Hazardous Materials Specialist Alameda County Health Agency Sampling and Analyses of Bioremediated Soils at 2410-24260 Mariner Square Loop, Alameda, CA Division of Hazardous Materials Department of Environmental Health 80 Swan Way, Room 200 Oakland, CA 94621

RE: Mariner Square Loop, Alameda, CA

Dear Mr. Levi:

In accordance with protocol set forth within Uriah's proposal for sampling of approximately 9,100 cubic yards of previously excavated soil at the above referenced site, 180 discrete samples were acquired by Uriah staff between April 30 and May 7, 1990. As indicated within Figure #1 (attached) some modifications were made with regard to sampling points in response to variations in soil volumes actually encountered within each treatment bed during the sampling process. The locations of twenty (20) additional samples for leachability analyses are also shown on Figure #1.

As indicated within the copies of certified laboratory analyses attached, the concentrations of analytes were as follows:

#### KEROSENE

Limit of		Highest Level of		
Detection	Variation	Contaminant Detected	Mean	
maa 2	N.A.	Ali samples N.D.	N.A.	

ppm...parts per million

N.D....below limits of detection

N.A....not applicable

#### DIESEL FUEL

Limit of		<u> Highest Level o</u>	
Detection	Variation	Contaminant Det	<u>ected Mean</u>
5 ppm	N.D12 pp	m 12 ppm	*3.2 ppm
Of the 29 s	amples which , 13 contain 7 contain 2 contain 1 contain 3 contain 0 contain	contained detected between 5.0 a ed between 6.1 a ed between 8.1 a ed between 9.1 a ed between 10.1	f diesel <5 ppm. table levels of nd 6.0 ppm diesel nd 7.0 ppm diesel nd 8.0 ppm diesel nd 9.0 ppm diesel nd 10.0 ppm diesel and 11.0 ppm diesel and 12.0 ppm diesel

#### TOTAL OIL AND GREASE

Limit of	f Highest Level of				
Detection	Variation	Cont	aminant Detected	Mean	
			0.70		
10 ppm	N.D270	mag	270 ppm	*41.85	mag

\*It should be noted that analytical protocol was developed during the course of this project (and previously submitted to the County of Alameda and RWQCB) which indicated that only a small fraction of the TOGs detected represented contamination by hydraulic oil, referencing, instead, pieces of asphalt introduced into the soil during the course of demolition of pavement encountered on site.

```
Of 180 samples, 4 contained levels of TOG <10 ppm. Of the remaining 176 samples, 30 contained 11-20 ppm TOG
38 contained 21-30 ppm TOG
33 contained 31-40 ppm TOG
25 contained 41-50 ppm TOG
20 contained 51-60 ppm TOG
24 contained 61-100 ppm TOG
4 contained 100-150 ppm TOG
1 contained 150-200 ppm TOG
1 contained >200 (270) ppm TOG
```

In calculating the total volume of TOG present within the 9,100 cubic yards of soil at a mean concentration of 41.85 ppm, one finds approximately 1.16 quarts (TOG) is present. Further, all 20 samples submitted for leachability analyses yielded analytical results below the limits of detection for all analytes.

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Should you have any questions regarding the above, or if we may otherwise be of assistance, please contact either of the undersigned at (415) 455-4991.

Sincerely,

Tailochorn Nijjar

Tarlochan Nijjar, M.Sc. Environmental Microbiologist and

Denise A. Rapp

Vice-President, Uriah Inc.

TN/DAR:ms

enc: Appendix "A"- Health Risk Assessment

Appendix "B" - Laboratory Data and Chains of Custody

Appendix "C"- Sampling Plan

cc: Mr. Richard Heitt, RWQCB

Mr. John Beery Jr., John Beery Organization

Ms. JeriAnn Alexander, Subsurface Consultants

Mariner Square loop

APPENDIX "A"

#### HEALTH RISK ASSESSMENT

#### Hydraulic Oil

The Material Safety Data Sheet (MSDS) provided by the Exxon Corporation for NUTO H 46 Hydraulic Oil (1) and available animal study data indicate that the Acute Oral LD-50 (rat) for this material is greater than 5 g/kg of body weight.

In order to present a "worst case", the NOEL (No Observable Effect Level) for an adult human male exposed to 5 g/kg Hydraulic Oil in drinking water was calculated as follows:

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NOEL (adjusted) = NOEL/F-1\*F-2\*F-3...F-N (2)

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#### Diesel Fuel

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- Exxon Corp. Material Safety Data Sheet for NUTO H 46
   Hydraulic Oil issued 5/19/89, Houston, Texas.
- 2. Hallenbeck, W.H. and Cunningham, K.M., Qualitative Risk Assessment for Environmental and Occupational Health, Lewis Publications, Inc., 1986, Michigan. pgs. 43-49.

APPENDIX "B"

Analytical Laboratory Specializing in GC-GC/MS Environmental Analysis

Hazardous Waste (#238)

Drinking Water (#955)

Waste Water

Consultation

May 7, 1990 ChromaLab File No.: 0490125

0490126

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0490128

URIAH ENVIRONMENTAL SERVICES, INC.

0490129 0490130

Attn: Terry Nijjar

RE: Seventy-Four soil samples for TEPH and Oil & Grease analyses

Project Name: JOHN - BERRY Date Sampled: April 30, 1990 Date Submitted: April 30, 1990

Date Extracted: April 28-May 6, 1990 Date Analyzed: April30-May 7, 1990

#### RESULTS:

Sample No.	Kerosene (mg/Kg)	Diesel (mg/Kg)	Oil & Grease (mg/Kg)
1A	N.D.	N.D.	26
1B	N.D.	N.D.	22
1C	N.D.	N.D.	59
2A	N.D.	N.D.	34
2B	N.D.	N.D.	17
2C	N.D.	N.D.	26
2D	N.D.	N.D.	23
2E	N.D.	N.D.	88
3A	N.D.	5.4	38
3B	N.D.	N.D.	23
3C	N.D.	N.D.	23
3D	N.D.	N.D.	19
3E	N.D.	N.D.	47
4A	N.D.	N.D.	24
4B	N.D.	N.D.	20
4C	N.D.	N.D.	26
4D	N.D.	N.D.	27
4E	N.D.	5.3	40
4F	N.D.	N.D.	55
5A	N.D.	N.D.	16
5B	N.D.	6.2	30
5C	N.D.	N.D.	16
5D	N.D.	N.D.	79
5E	N.D.	N.D.	68
6A	N.D.	N.D.	53
6B	N.D.	N.D.	32
6C	N.D.	N.D.	32

Continued

Analytical Laboratory Specializing in GC-GC/MS Environmental Analysis

Hazardous Waste (#238)

Drinking Water (#955)

Waste Water

Consultation

May 7, 1990

ChromaLab File No.: 0490125 Page 2 of 3

URIAH ENVIRONMENTAL SERVICES, INC.

Attn: Terry Nijjar

RE: Seventy-Four soil samples for TEPH and Oil & Grease analyses

Project Name: JOHN - BERRY

#### **RESULTS:**

Sample No.	Kerosene (mg/Kg)	Diesel (mg/Kg)	Oil & Grease (mg/Kg)
6D	N.D.	N.D.	37
6E	N.D.	5.2	18
7A	N.D.	N.D.	54
7B	N.D.	N.D.	41
7C	N.D.	N.D.	42
7 D	N.D.	N.D.	95
7 E	Ņ.D.	N.D.	24
88	N.D.	5.1	29
8B	N.D.	N.D.	21
8C	N.D.	N.D.	72
8D	N.D.	N.D.	100
8E	N.D.	N.D.	49
9A	N.D.	N.D.	120
9B	N.D.	N.D.	34
9C	N.D.	N.D.	49
9D	N.D.	N.D.	56
9E	N.D.	5.1	33
10A	N.D.	5.3	32
10B	N.D.	N.D.	57
10C	N.D.	N.D.	82
10D	N.D.	N.D.	73
10E	N.D.	N.D.	42
11A	N.D.	N.D.	36
11B	N.D.	N.D.	24
110	N.D.	N.D.	73
11D	N.D.	8.1	49
11E	N.D.	N.D.	59
12A	N.D.	7.3	65
12B	N.D.	N.D.	26
12C	N.D.	N.D.	25
12D	N.D.	N.D.	41
12E	N.D.	N.D.	110
13A	N.D.	6.7	92
13B	N.D.	N.D.	34

Continued

Analytical Laboratory Specializing in GC-GC/MS Environmental Analysis

Hazardous Waste (#238)

Drinking Water (#955)

Waste Water

Waste Water
 Consultation

May 7, 1990

ChromaLab File No.:

0490125

Page 3 of 3

URIAH ENVIRONMENTAL SERVICES, INC.

Attn: Terry Nijjar

RE: Seventy-Four soil samples for TEPH and Oil & Grease analyses

Project Name: JOHN - BERRY

#### RESULTS:

			Oil &
Sample	Kerosene	Diesel	Grease
No.	(mg/Kg)	(mg/Kg)	(mg/Kg)
13C	N.D.	5.2	39
13D	N.D.	N.D.	26
13E	N.D.	12	41
14A	N.D.	12	56
14B	N.D.	9.4	43
14C	N.D.	9.9	22
14D	N.D.	12	31
14E	N.D.	N.D.	22
15A	N.D.	5.6	16
15B	N.D.	6.0	14
15C	N.D.	6.6	48
15D	N.D.	7.0	49
15E	N.D.	9.4	59
BLANK	N.D.	N.D.	N.D.
SPIKED RECOVERY		89.9%	
DUPLICATED SPIKE			
RECOVERY		91.0%	
DETECTION LIMIT	5	5	10
METHOD OF ANALYSIS	3550/8015	3550/8015	503 D&E

ChromaLab, Inc.

David Duong

-Senior Chemist

Eric Tam

Laboratory Director

**Analytical Laboratory** Specializing in GC-GC/MS May 9, 1990

Environmental Analysis

 Hazardous Waste (#238)

Drinking Water

(#955)

Waste Water

ChromaLab File No.: 0590003

URIAH ENVIRONMENTAL SERVICES, INC. Attn: Terry Nijjar

Twenty-five soil samples for TEPH and Oil & Grease analyses RE:

Project Name: JOHN - BERRY

Date Sampled: May 1, 1990 Date Submitted: May 1, 1990

Duration of Analysis: May 1-8, 1990

RESULTS: Sample No.	Kerosene	Diesel	Oil & Grease
140.1	(mg/Kg)	(mg/Kg)	(mg/Kg)
14F	N.D.	N.D.	31
14G	N.D.	N.D.	
14H	N.D.	N.D.	53
14I	N.D.	N.D.	53
14J	N.D.	N.D.	13
15F	N.D.	N.D.	28
15G	N.D.	N.D.	20
15H	N.D.	N.D.	18
151	N.D.		44
15Ĵ	N.D.	N.D.	14
16A	N.D.	N.D.	23
16B	N.D.	N.D.	64
16C	N.D.	N.D.	170
16D	N.D.	N.D.	59
16E	N.D.	N.D.	39
16F	N.D.	N.D.	41
16G		N.D.	44
16H	N.D. N.D.	N.D.	81
16I		N.D.	49
16J	N.D.	N.D.	88
17A	N.D.	N.D.	47
17B	N.D.	N.D.	59
17C	N.D.	N.D.	18
17D	N.D.	N.D.	74
17E	N.D.	N.D.	44
176	N.D.	N.D.	83
BLANK	N.D.	N.D.	N.D.
SPIKED RECOVERY	107.6%	92.1%	
DUPLICATED SP. REC.	91.3%	108.0%	
DETECTION LIMIT	5	5	10
METHOD OF ANALYSIS	3550/8015	3550/8015	503 D&E

ChromaLab, Inc.

David Duong Senior Chemist

Eric Tam

Laboratory Director

Analytical Laboratory
Specializing in GC-GC/MS

May 10, 1990

. Environmental Analysis

• Hazardous Waste (#238)

• Drinking Water (#955)

Waste Water

Consultation

ChromaLab File No.: 0590012

0590013

Page 1 of 2 0590014

URIAH ENVIRONMENTAL SERVICES, INC.

Attn: Terry Nijjar

RE: Thirty-five soil samples for TEPH and Oil & Grease analyses

Project Name: JOHN - BERRY

Date Sampled: May 2, 1990
Date Extracted: May 2-9, 1990
Date Analyzed: May 2-9, 1990

#### **RESULTS:**

Sample No.	Kerosene (mg/Kg)	Diesel (mg/Kg)	Oil & Grease (mg/Kg)
18A	N.D.	N.D.	270
18B	N.D.	N.D.	51
18C	N.D.	N.D.	47
18D	N.D.	N.D.	50
18E	N.D.	N.D.	55
18F	N.D.	N.D.	51
19A	N.D.	N.D.	89
19B	N.D.	N.D.	27
19C	N.D.	N.D.	59
19D	N.D.	N.D.	48
20A	N.D.	N.D.	32
20B	N.D.	N.D.	26
20C	N.D.	N.D.	17
20D	N.D.	N.D.	20
20E	N.D.	N.D.	28
21A	N.D.	N.D.	83
21B	N.D.	N.D.	25
210	N.D.	N.D.	100
21D	N.D.	N.D.	31
21E	N.D.	N.D.	12
22A	N.D.	5.1	41
22B	N.D.	N.D.	34
22C	N.D.	N.D.	39
22D	N.D.	N.D.	56
22E	N.D.	N.D.	31

Analytical Laboratory Specializing in GC-GC/MS

May 10, 1990

Environmental Analysis

(#238)Hazardous Waste

 Drinking Water (#955)

Waste Water

Consultation

ChromaLab File No.: 0590012

0590013

Page 2 of 2 0590014

URIAH ENVIRONMENTAL SERVICES, INC.

Attn: Terry Nijjar

RE: Thirty-five soil samples for TEPH and Oil & Grease analyses

Project Name: JOHN - BERRY

May 2, 1990 Date Sampled: Date Submitted: May 2, 1990 Date Extracted: May 2-9, 1990 May 2-9, 1990 Date Analyzed:

#### **RESULTS:**

Sample No.	Kerosene (mg/Kg)	Diesel (mg/Kg)	Oil & Grease (mg/Kg)
1101	(111371537	(mg/Ng/	(111971\9)
23A	N.D.	8.0	16
23B	N.D.	N.D.	N.D.
23C	N.D.	6.9	12
23D	N.D.	5.4	24
23E	N.D.	N.D.	29
24A	N.D.	6.9	N.D.
24B	N.D.	N.D.	N.D.
24C	N.D.	N.D.	24
24D	N.D.	N.D.	20
24E	N.D.	N.D.	13
BLANK	N.D.	N.D.	N.D.
SPIKED RECOVERY	89.3%	92.1%	
DUPLICATED SP. REC.	96.6%	108.0%	
DETECTION LIMIT	5	5	10
METHOD OF ANALYSIS	3550/8015	3550/8015	503 D&E

ChromaLab, Inc.

David Duong

Senior Chemist

Eric Tam

Laboratory Director

Analytical Laboratory Specializing in GC-GC/MS Environmental Analysis

Hazardous Waste (#238)

Drinking Water (#955)

Waste Water

Consultation

May 14, 1990

ChromaLab File No.:

0590050

Page 1 of 2

0590051 0590052

URIAH ENVIRONMENTAL SERVICES, INC.

0590053

Attn: Terry Nijjar

RE: Forty-six soil samples for TEPH and Oil & Grease analyses

Project Name: JOHN BERRY

Date Sampled: May 7, 1990 Date Submitted: May 7, 1990

Duration of Analysis: May 7-14, 1990

#### **RESULTS:**

Sample No.	Kerosene (mg/Kg)	Diesel (mg/Kg)	Oil & Grease (mg/Kg)
25A	N.D.	N.D.	N.D.
25B	N.D.	N.D.	25
25C	N.D.	N.D.	53
25D	N.D.	N.D.	22
25E	N.D.	N.D.	12
26A	N.D.	N.D.	35
26B	N.D.	N.D.	14
26C	N.D.	N.D.	53
26D	N.D.	N.D.	17
26E	N.D.	N.D.	27
27A	N.D.	6.6	46
27B	N.D.	N.D.	36
27C	N.D.	N.D.	27
27D	N.D.	N.D.	55
28A	N.D.	N.D.	47
28B	N.D.	N.D.	33
28C	N.D.	N.D.	36
28D	N.D.	N.D.	78
28E	N.D.	N.D.	35
29A	N.D.	N.D.	14
29B	N.D.	N.D.	20
29C	N.D.	N.D.	77
29D	N.D.	N.D.	32
29E	N.D.	5.1	26
30A	N.D.	N.D.	14
30B	N.D.	N.D.	20
30C	N.D.	N.D.	27
30D	N.D.	N.D.	17
30E	N.D.	N.D.	25
31A	N.D.	5.8	38
318	N.D.	N.D.	40
31C	N.D.	N.D.	16

Analytical Laboratory Specializing in GC-GC/MS Environmental Analysis

Hazardous Waste (#238)

Drinking Water

(#955)

Waste Water

Consultation

May 14, 1990

ChromaLab File No.:

0590050 0590051

Page 2 of 2

0590052

URIAH ENVIRONMENTAL SERVICES, INC.

0590053

Attn: Terry Nijjar

RE: Forty-six soil samples for TEPH and Oil & Grease analyses

Project Name: JOHN BERRY

Date Sampled: May 7, 1990 Date Submitted: May 7, 1990

Duration of Analysis: May 7-14, 1990

#### RESULTS:

Sample	Kerosene	Diesel	Oil &
·			Grease
No.	(mg/Kg)	(mg/Kg)	(mg/Kg)
31D	N.D.	N.D.	30
31E	N.D.	N.D.	78
32A	N.D.	N.D.	40
32B	N.D.	N.D.	27
32C	N.D.	N.D.	48
32D	N.D.	N.D.	17
32E	N.D.	N.D.	32
24F	N.D.	N.D.	32
24G	N.D.	N.D.	18
33A	N.D.	N.D.	35
33B	N.D.	N.D.	93
33C	N.D.	N.D.	31
33D	N.D.	N.D.	28
33E	N.D.	N.D.	48
BLANK	N.D.	N.D.	N.D.
SPIKED RECOVERY	93.1%	84.9%	
DUPLICATED SPIKE RECOVERY	89.8%	84.2%	*** *** · ·
DETECTION LIMIT	5	5	50
METHOD OF ANALYSIS	3550/8015	3550/8015	503 D&E

ChromaLab, Inc.

David Duong

Senior Chemist

Eretam (by PD)

Eric Tam

Laboratory Director

Analytical Laboratory
Specializing in GC-GC/MS

Environmental Analysis

Hazardous Waste (#238)

Drinking Water

(#955)

Waste Water

Consultation

May 14, 1990

ChromaLab File No.: 0590038

URIAH ENVIRONMENTAL SERVICES, INC. Attn: Terry Nijjar

RE: Twenty soil samples for EP 1310 then TEPH and Oil & Grease analyses

Project Name: John Berry

Date Sampled: May 4, 1990 Date Submitted: May 4, 1990

Analysis Duration: May 4-12, 1990

#### **RESULTS:**

			Oil &
Sample	Kerosene	Diese1	Grease
No.	(mg/L)	(mg/L)	(mg/L)
L1	N.D.	N.D.	N.D.
L2	N.D.	N.D.	N.D.
L3	N.D.	N.D.	N.D.
L4	N.D.	N.D.	N.D.
L5	N.D.	N.D.	N.D.
L6	N.D.	N.D.	N.D.
L7	N.D.	N.D.	N.D.
L8	N.D.	N.D.	N.D.
L9	N.D.	N.D.	N.D.
L10	N.D.	N.D.	N.D.
L11	N.D.	N.D.	N.D.
L12	N.D.	N.D.	N.D.
L13	N.D.	N.D.	N.D.
L14	N.D.	N.D.	N.D.
L15	N.D.	N.D.	N.D.
L17	N.D.	N.D.	N.D.
L19	N.D.	N.D.	N.D.
L21	N.D.	N.D.	N.D.
L23	N.D.	N.D.	N.D.
L25	N.D.	N.D.	N.D.
BLANK	N.D.	N.D.	N.D.
SPIKED RECOVERY	83.1%	84.2%	
DUPLICATED SP. REC.	89.6%	84.9%	
DETECTION LIMIT	5	5	10
	1310/3510/8015	1310/3510/8015	1310/503 A&E
		•	, , , , , , , ,

ChromaLab, Inc.

-David Duong -Senior Chemist Eric Tam

Laboratory Director

#### URIAH ENVIRONMENTAL SERVICES, INC. CHAIN OF CUSTODY .

\*\*\*\*For Office Use Only\*\*\*\* Project Name: JOHN - BERRY Job# SAMPLING COMPLETED: 11:30 AM/PM, DATE: 4/30/90BY: SITE NAME AND ADDRESS: 2410 - 2420 MARINER ALAMEDA REGULATORY AGENCY REPRESENTATIVE PRESENT: ARIU REGULATORY AGENCY REPRESENTATIVE TITLE: HAZ. MAT. SPECIALIST ALAMEDA LAB USED: CHROMA LAB. LAB ON SITE? yes/no SAMPLE TO LAB VIA? Lab Rep (Uriah Staff) Courier SAMPLE# SOIL/WATER ANALYZE FOR . # OF SINGLE/ PRODUCT CONTAINERS COMPOSITE TPH-K, TPH-D TOG 503 16 11 " 10 1, 11 2A 11 // 2 B 11. 20 11 // 11 2D 11 26 11 ħ 34 // 11 3 B 11 11 30 11 11 1/ 3.0 11 11 H 3E 11 SAMPLE ACCEPTED BY: SAMPLE RELEASED BY: \_ 12 DAM/PM, FBO/90 1/a142: 30 AM/PM, 4/30/90 :\_\_\_ AM/PM,\_\_/\_\_/90 : AM/PM, /\_/90 TURN AROUND: Routine.

RESULTS TO URIAH BY:\_\_\_\_

# URIAH ENVIRONMENTAL SERVICES, INC. CHAIN OF CUSTODY

CHROMALAB FILE # 490126

\*\*\*\*For Office Use Only\*\*\*

FILE TO TO	CHROME LAB VIA?		LAB ON SIT	T. SPE. C	O.DE ALAMEE
Ample#	SOIL/WATER PRODUCT	ANALYZE FOR	<u> </u>		SINGLE/ COMPOSITE
4 A	SOIL	TPH-D/TPH-K)	TOG 503-D	ee 1	S .
B	и	11	<i>//</i> ·		S
4 C		//	//		
4 D	"	11	. //	.	· · ·
4 E	' '/ '	11	4		5
4 F	· // ·	//	. //	. [	S
5 A	//	"	//		5
5 B	//	<i>"</i>	.11	. 1	S
5C	/)	//	//	/	S
5 D	//	//	11		». S
56	//	()	11		5
6 A .	//	//	//	1.	· S
6B	11	//	//		5.
	RELEASED BY	: <u>30</u> AM/FM, <u>4/30</u> /9		CCEPTED BY:	0 AM/рф) 4 /30

# URIAH ENVIRONMENTAL SERVICES, INC. CHAIN OF CUSTODY

****Fox	Office	Use	Only****
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GULATOR EGULATOR AB USED:	Y AGENCY RE	S: 2410 - 24.20 ALAMEDA PRESENTATIVE PRES PRESENTATIVE TITL LAB Lab Rep Uriah S	ENT: ARIU L E: HAZ. MAT LAB ON SITE?	Evi sle: Ac yes/no	AMEDA CO.
AMPLE#	SOIL/WATER PRODUCT	ANALYZE FOR		# OF ITAINERS	SINGLE/ COMPOSITE
S C	SOIL	TFH-D/TFH-K,	TOG 503 DE	= 1	<i>S</i> .
P	11	′′	٠ //		S
E	//	//	//		5
7 A	//	. (/	. (1		. S
7-B	. // .	//	//	• ]	S
7-C	· // ·	//	/,	. 1	S
7 D	//	<i>i</i>	//	1	
TE	//	Ir .	. //	• /	S
8 A	//	"/	//	1	
3 B	/5	//	//	/	"· S
8 C	//	(1	11	1	5
8D.	1/	//	4	1	5.
8 E	**************************************	//	1,		
	RELEASED BY		SAMPLE ACCE	PTED BY:	<b>a</b> r

# URIAH ENVIRONMENTAL SERVICES, INC. CHROMALAB FILE # 490128 CHAIN OF CUSTODY

\*\*\*\*For Office Use Only\*\*\*\*

USED:			B ON SITE?	yes/no	ALAMEDI (C
LE#	SOIL/WATER PRODUCT	ANALYZE FOR		# OF TAINERS	SINGLE/ COMPOSITE
<u> </u>	SOIL	18H-D/TPH-K, TCA	, 503 D€E	1	5
,	//	<i>'</i> /	·//	(	5
-	//	//	1	/	S
>	(/	<i>(</i> 1.	. "		· <u>S</u>
-	, 4	<i>''</i>	//	* {	5
9	, // ,	//	· // .	/	S
B	,1	//	//	1	5
<i>C</i>	//	// .	. 11	1	S
D	//	//	//	/	S
5	//	//	1/	1 .	*· 5
A	//	//	11	<i>j</i>	5
B .	()	//	//	1	S
	//	//	17	/	S
<u>C</u>					

# URIAH ENVIRONMENTAL SERVICES, INC. CHAIN OF CUSTODY

•			
****For	Office	Use	Only****

GULATOR B USED:		PRESENTATIVE PREPRESENTATIVE TITE	LE: HAZ MA LAB ON SIT	E? yes/no	CAMEDA Co.
MPLE#	SOIL/WATER PRODUCT	ANALYZE FOR	 C	# OF ONTAINERS	SINGLE/ COMPOSITE
11 0	SOIL	78H-D/TPH-K	0G 4503 DRE	1	S
11E	//		/, ·		S
12 A	1/	//	/,	/	S
12B	4	. //	. 4	/	S
126	' '	(/	4	-1	S
12D	, /,·	£ /	4	. /	5
12E	1,	.//	U	/	5
13 A	//	<i>a</i> ·	7/	. /	S
13B	//	//	//	/	S
13 C	//	//	//	/	S
13 D		<i>[1]</i>	4	<del></del>	5
13 E		//	//	<del>, , , , , , , , , , , , , , , , , , , </del>	S
14.A		//	1/	<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>	S
<del> </del>	**************************************		•		de la la de la companya de de la companya de la co
SAMPLE 1	RELEASED BY		SAMPLE AC	CEPTED BY:	
	micas 12	: 30 AM/PM, 4 / 30/	0 000	12 2	S AMIPM J

SULATORY AGENCY REPRESENTATIVE TITLE: HAZ MAT SEC. ALAMET USED: CHRCMA (AB LAB ON SITE? YES/NO SIPLE TO LAB VIA? Lab Rep Utlah Stabf Courier  APLE# SOIL/WATER ANALYZE FOR # OF CONTAINERS COMPOSITE O	Proje	ect Name: 30	DHN BERRY DRO	Job#		
GULATORY AGENCY REPRESENTATIVE PRESENT: ARMI (FVI) GULATORY AGENCY REPRESENTATIVE TITLE: HAZ MAT SPE ACAMED B USED: CHRCMA (AB LAB ON SITE? YES/NO) MPLE TO LAB VIA? Lab Rep Urlah Staff Courier  MPLE# SOIL/WATER ANALYZE FOR # OF CONTAINERS COMPOSIT  4 B SOIL THAD/THAK, TOG SOSDER   SINGLE/ COMPOSIT  4 D " " " S  4 D SOIL THAD/THAK, TOG SOSDER   SINGLE/ COMPOSIT  5 D " " " S  15 D " " " S  15 C " " " " " " S  15 C " " " " " " S  15 C " " " " " " S  15 C " " " " " " " S  15 C " " " " " " " S  15 C " " " " " " " S  15 C " " " " " " " S						STAFE
PRODUCT CONTAINERS COMPOSIT  (4 B	GULATOR GULATOR B USED:	Y AGENCY RE Y AGENCY RE CHROMA	PRESENTATIVE PRESE PRESENTATIVE TITLE	ALAM NT: ARU : HAZ MA LAB ON SITE	EDA (/EVI T SPE ? yes/no	ALAMEDI
14 C 4 11 1 S 14 D 11 1 S 14 E 11 1 S 15 B 1 1	AMPLE#		ANALYZE FOR			SINGLE/ COMPOSITE
14 D " " " " " S  14 E " " " " " " " 1  S  15 B ' " " " " " " " S  15 C " " " " " " S	14 B	SOIL	TPH-D/TPH-K, T	06 SO3De4	<u></u>	S
14E " " " " 1 S  15A '" " " 1 S  15B '" " " " S  15C. " " " S  15D " " S	14 C.	4	//	<i>'</i> /		S
15A '" " " 1 S 15B '" " " " S 15C. " " " " S	ILI D	11	/,	//	)	S
15B , 11	14 E	11	· //	. //	]	. <u>S</u>
15C. " " " S	15A	' //	//	//	1	S
15D " " " S	15 B	, ,, .	U		·1	S
	15c.	/1	1i	lr.		2
15E 11 11 S	15D	11	/, ·	·		S
· · · · · · · · · · · · · · · · · · ·	15E	//	le	11		S
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RESULTS TO URIAH BY: TURN AROUND: .

# URIAH ENVIRONMENTAL SERVICES, INC. CHAIN OF CUSTODY

****For	Office	Use	Only****
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PRODUCT  14 F SOIL TPH-D/TPH-K TOG 503D = 1 S  14 G ', ', ', ', ' S  14 H ', ', ', ' S  14 I ', ', ', ' S  14 I ', ', ', ' S  14 I ', ', ', ', ' S  15 F ', '' ', ', ' S  15 G '' '' '' ' S  15 J ', '' '' ' S  16 B '' '' ' ' S  SAMPLE RELEASED BY:  SAMPLE RELEASED BY:  SAMPLE RELEASED BY:	REGULATOR	Y AGENCY RE	PRESENTATIVE PRESENTATIVE TITLE:  LAB Uriah Sta	AB ON SITE?		engeneral-der feste von der
	SAMPLE#		ANALYZE FOR			
	14 F	SOIL	TAH-D/TAH-K, TO	G 503D&E		S .
4  I		( <sub>f</sub>	<i>i</i> ,	.,,		
14-J '' '' ' S  15-F ''' '' '' '' ' S  15G '' '' '' '' ' ' S  15H '' '' '' ' S  15J '' '' ' ' S  16A '' '' ' S  16A '' '' ' S  16C '' '' ' S  SAMPLE RELEASED BY: SAMPLE ACCEPTED BY:	14 H	li	2	′/		
15-f '" " "   S  15G " " " "   S  15H " " "   S  15J " " "   S  16A " " "   S  16B " " "   S  16C " " "   S  SAMPLE RELEASED BY:	14 I	′/	47			· S
15 G " " " S  15 H " " I S  15 J " " I S  16 A " " I S  16 B " " I S  SAMPLE RELEASED BY: SAMPLE ACCEPTED BY:	14-5	1 /,	/1	11	1	S
15H " "   S  15I " "   S  15J " "   S  16A " "   S  16C " "   S  SAMPLE RELEASED BY: SAMPLE ACCEPTED BY:	15 - F	· // .	′/	<i>'</i>		S
15 I " "   S  15 J " "   S  16 A " "   S  16 B " "   S  16 C " "   S  SAMPLE RELEASED BY: SAMPLE ACCEPTED BY:	15 G	//	"	4	1	S
15 J 4 "	1511	11	//	• //	• 1	S
18 J " "   S   S   S   S   S   S   S   S   S	15 I	71	//	//	ſ	2
16A " "   S  16B " "   S  16C " "   S  SAMPLE RELEASED BY: SAMPLE ACCEPTED BY:	15 J	4	//	′/	1	, S
16 B " "   S 16 C " "   S SAMPLE RELEASED BY: SAMPLE ACCEPTED BY:	16A		11	"/	1	
SAMPLE RELEASED BY: SAMPLE ACCEPTED BY:		11	11	1	<i> </i>	S
	16C	It	//	4	1	.S
			•			

# URIAH ENVIRONMENTAL SERVICES, INC. CHAIN OF CUSTODY

\*\*\*\*For Office Use Only\*\*\*\*

ALAMEDA EGULATORY AGENCY REPRESENTATIVE PRESENT: EGULATORY AGENCY REPRESENTATIVE TITLE: AB USED: CHROMA LAB LAB ON SITE? YES/NO: SAMPLE TO LAB VIA? Lab Rep Uriah Staff Courier							
MPLE#	SOIL/WATER PRODUCT	ANALYZE FOR	# OF CONTAINERS	SINGLE/ COMPOSITE			
SA	SCIL	TPH-D/TPM-K, TO	6,503D4E 1	<u>S</u>			
SB	ζ <sub>1</sub>			S			
32	(1		(	S			
18D	Ų			<u> </u>			
8 E	'// '		.1	S			
185	// .		. 1	S			
19 A	//			S			
19 B	//	-	• • • • • • • • • • • • • • • • • • • •	S			
19c	//			2			
19 D	1/	and the state of t		2 C			
20 A	//		/	Z			
20 B	//		<u> </u>	S			
200	//			Ż,			
20B	**************************************		AMPLE ACCEPTED BY:	S			

# URIAH ENVIRONMENTAL SERVICES, INC. CHROMALAE FILE # 590013 CHAIN OF CUSTODY

\*\*\*\*For Office Use Only\*\*\*\*

20D 20E 21A 21B 21C	OIL/WATER PRODUCT SOIL //	ANALYZE FOR  TPII D/TPH-K,	TOG S03D←	# OF CONTAINERS	SINGLE/COMPOSITE
20E 21A 21B 21C	11		7)	<u> </u>	
21A 21B 21C	1/				Q
21B	// 	//			<del>mingerial d'Andriet</del> ~*>
210			(1		
	1	0	. //		· <u>S</u> ·
101 1	11	11	11	1	S
210	, //:	(1	· 1	. /	S
21E	1/	/)	//	<u>'</u>	_S
22A	//	,	·//	• 1	5
228	4	11	Ŋ		S
226.	//	<i>(</i> )	1,		s. S
22D	//	/)	ク		S
22E	11	11		1.	
23A		/)	リ	1	S
SAMPLE RE	ELEASED BY		SAMPLE ACC	CEPTED BY:	WAMYPM, S.

### URIAH ENVIRONMENTAL SERVICES, INC. CHAIN OF CUSTODY

\*\*\*\*For Office Use Only\*\*\*\* Project Name: JOHN SERRY ORG. Job# SAMPLING COMPLETED: 2:50 AM/PM, DATE: 572/90 BY: URIAH SITE NAME AND ADDRESS: 24/0 -REGULATORY AGENCY REPRESENTATIVE PRESENT: REGULATORY AGENCY REPRESENTATIVE TITLE: LAB ON SITE? yes/no LAB USED: CHROMA LAB SAMPLE TO LAB VIA? Lab Rep Urlah Staff Courier SOIL/WATER SAMPLE# . # OF SINGLE/ ANALYZE FOR PRODUCT COMPOSITE CONTAINERS THH-D/THK, TOG, 503 DEE 23B 23C 11 11 23D b 23 E 24 A 24B 11 'n 11 11 24C U 11 24 D 11 11 24 E SAMPLE ACCEPTED BY: SAMPLE RELEASED BY: 3, 8 AM/PN, \$/3/90 1963: 45 AM/PM), 5/2/90 AM/PM,\_\_/\_\_/90 AM/PM,\_\_/\_/90

RESULTS TO URIAH BY:

TURN AROUND: .

RESULTS TO URIAH BY:

### URIAH ENVIRONMENTAL SERVICES, INC. CHAIN OF CUSTODY

\*\*\*\*For Office Use Only\*\*\*\* Project Name: JOHN BEERY Job# SAMPLING COMPLETED: 1:50 AM/PM, DATE: 5/4/90 BY: 76-RX SITE NAME AND ADDRESS: 2410-2420 MARINER SO LODP ALAMEDA REGULATORY AGENCY REPRESENTATIVE PRESENT: REGULATORY AGENCY REPRESENTATIVE TITLE: CHROMA LAB LAB ON SITE? yes/no LAB USED: SAMPLE TO LAB VIA? Lab Rep Wriah Staff Courier SAMPLE# SOIL/WATER ANALYZE FOR . # OF SINGLE/ PRODUCT CONTAINERS COMPOSITE 1310 = 503A FE for TOG, 3570/1310 for TPH-D& TPH-K S -15 (i 11 la 619 421 L23 L 25 11 8m · 6 ÃŢ. 8 15 SAMPLE ACCEPTED BY: SAMPLE RELEASED BY: 上:多AM/PM,51生/90 1:30AM/FM, 5/4/90 :\_\_\_ AM/PM,\_\_/\_\_/90 \_\_\_\_\_:\_\_ AM/PM,\_\_/\_\_/90 AM/PM, / /90

TURN AROUND:

# URIAH ENVIRONMENTAL SERVICES, INC. CHAIN OF CUSTODY

	AMPLING COMPLETED: 1:30-AM/PM, DATE: 5/7/90 BY: URIAH STAFF ITE NAME AND ADDRESS: 2410 2420 MARINER SQ LOOP ALAMEDA									
EGULATORY AGENCY REPRESENTATIVE PRESENT:  EGULATORY AGENCY REPRESENTATIVE TITLE:  AB USED: CHROMA LAB ON SITE? YES/ho  AMPLE TO LAB VIA? Lab Rep (Uriah Staff) Courier										
AMPLE#	SOIL/WATER PRODUCT	ANALYZE FOR		# OF NTAINERS	SINGLE/ COMPOSITE					
24F	SOIL	TAY-D/7PH-K,	SOS DEE	-						
24 Cr	41	"	ý.		S					
33 A	1	4	1	)	S					
33 B	//	1/	. "/		. S					
33 <b>E</b>	· //	//	//	-1	S					
33.D	1 // .	//	. //		S					
33 <i>E</i>	y	ir ir	//		S					
	, <del></del>	*	*	•						
<del></del>			<del>y ka </del>	gastacomunicativa de la comunicación de la comunica	Control of the Party of the Par					
<del></del>	graphs deprind with the production of the second	The state of the s			Street St					
<u> </u>	-		and the state of t	and the state of t	(de <del>de line, mais, me e de qui del camill</del>					
<del></del>	-		and the second s		alternational designation of the Control of the Con					
·					the state of the s					
<del></del>					Charles Commission Com					
		•	CANDID ACC	PDWPD BV.						
SAMPLE	RELEASED BY		SAMPLE ACC	2.	+ AM / STOP					
Tavr	1 / 2	155 AM PW, 5/7/	o menu	The state of the s	man foris					
******	15.	1 AM/PM,//	90 -	-	AM/PM,					
	Market and the Control of the Contro	1_ AM/PM,_/_/	90		AM/PM,					

ITE NAMI	E AND ADDRESS	:30.am/6m) dat 5: 24/0 - 24/20	MARINER 9	BY: URIAH SQ COOP ALAMEDA	i STAFF
EGULATO	RY AGENCY RE	PRESENTATIVE PRES PRESENTATIVE TITL LAR Lab Rep Uriah S	LAB ON SITE	? yes/no er	and the state of t
ample#	SOIL/WATER PRODUCT	ANALYZE FOR	co	# OF NTAINERS	SINGLE/ COMPOSITE
25A	Soil	TPH D& TPH-K,	TOG, 503 DEE		S
25 B	۷,	/,		1	S
25c	Ŋ	//	·/		
25 D	4	· Ir	· //	1	· _ S
25E	' (/	4	11		<u></u>
26 A	) (; ·	//	. //		S
26 B	(/	i	4	1	5
26 C	4	//	• 1/		S
26 D	1,	//	1)	1	S
26 E	(,	1)	1/		*. S
27A	/r	<i>'</i>	4	1	S
27-B	_	//	11	l	S.
270		~	11	1	S.
		•	4	Britan este galance de des	
	RELEASED BY		SAMPLE ACC		
Tesm	1 my/as_ 2	: 55 am/PM, 5/ 7/1	00 Zook	2,	MAMAPH,
	//	: AM/PM,/_/	90	-	AM/PM,_
		: AM/PM,//			

SAMPLING COMPLETED: 1: 30 AM PM, DATE: 5/7/90 BY: URIAH STAFF SITE NAME AND ADDRESS: 3410-2420 MARINER SO LOOF ALAMEDA.					
EGULATO: AB USED	ry agency re	PRESENTATIVE PRES PRESENTATIVE TITI MA LAB Lab Rep (Uriah S	LAB ON SITE		ناسوية في خوابد المقادلة المق المقادلة المقادلة ال
ample#	SOIL/WATER PRODUCT	ANALYZE FOR	C	. # OF ONTAINERS	SINGLE/ COMPOSITE
27D	_501_	IPH-D/TPH-K,	503 D 4E	1	<u>S</u>
28 A	<b>y</b>	u'	4		S
28B	11	U	4	1	S
28c	4,1	//	."		5
28D	1//	//	11	-1	5
28 E	, // .	4	? <i>)</i>	. 1	S
29 A	*******************************	//	1)	-	S
29 15	4,		٠ ٤	1	S
29C	, <del></del>	A.	<i>'</i>	1	2
AD	1/	H	1	/	%. 
29E.	11	11	1/	1	2
30A	<i>"</i>	11	7)	L	
30 B	//	//	11	1	S
200	·			anganga akandrapahinganinganin	All and the second second second second
	RELEASED BY		SAMPLE ACC		
Tem	myar 2	:55 AM PM; 5/ 7/8	Lacola_		FJAM/PM) S
<del></del>	// 	: AM/PM,/_/	90 ·	**************************************	AM/PH,
•		: AM/PM,/_/	90		AM/PM,_

SAMPLING COMPLETED: 1:30 AM/PM, DATE: 5/7/90 BY: URIAH STAFF SITE NAME AND ADDRESS: 2410 - 2420 MARINER SQ LOOF ALAMEDA.					
GULATOR B USED:	Y AGENCY RE	PRESENTATIVE PRESE PRESENTATIVE TITLE A_B Lab Rep	LAB ON SITE?		
MPLE#	SOIL/WATER PRODUCT	ANALYZE FOR		# OF TAINERS	SINGLE/ COMPOSITE
30 C.	SOIL	TPH-D/TPH-K, T	OG 503 D4E	1	<u>S</u>
30 <u>D</u>	4	//	1/1		3
30 <i>E</i>	()	//			S
30 A	//	is	11		· <u>S</u>
316	' //	/1	"		S
31C	1 1/	′/	. // .		S
31 D	//	//	1	1	5
31E	/,	//	. //		S
32 A	1/	//	11		S
32B	1/	//	1		*· S
32C	//	1/	1/	ĺ	S
32.D	4	· ·	11	<i>L</i>	<u>s</u> .
32E	11	11	11		S

APPENDIX "C"



## Uriah Inc.

An Environmental Services Company

April 20, 1990

Mr. Ariu Levi
Hazardous Materials Specialist
Alameda County Health Agency
Division of Hazardous Materials
Department of Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

RE: Sampling Plan for Soil Under Bioremediation at 2410-2420 Mariner Square Loop, Alameda, CA

Dear Mr. Levi:

In response to your request, Uriah, Inc. is pleased to submit the following proposal for sampling of approximately 9,100 cubic yards of soil at the above referenced site:

All sampling would be performed in accordance with County of Alameda and San Francisco Bay Region Water Quality Control Board quidelines. One discrete sample will be collected for every fifty (50) cubic yards of soil which has been under treatment (see site sketch for proposed sampling points). Each soil sample will be collected in a statistically valid random pattern at various depths (i.e. 0"-6", 6"-12", and 12"-18") by driving a clean, brass sample tube (1.92 inches in diameter and 6 inches in length) into the soil with a mallet or drive sampling tool until such time as the sampling tube is completely filled with soil. Upon withdrawing the sampling tube from the soil, the ends would be promptly covered with aluminum foil, fitted with plastic caps, sealed with black electrical tape, marked, and placed on dry ice.

The samples would be transported to a certified hazardous waste analytical laboratory under chain of custody for analyses for Total Oil and Grease (TOG) using SM 503 D&E and Total Petroleum Hydrocarbons as Diesel and Kerosene (TPH-D/TPH-K) using EPA Methods 3550/8015.

In addition to the acquiring samples for the analyses described above, twenty (20) additional soil samples would be collected at various depths within treatment beds 1-15, 17, 19, 21, 23, and 25. These samples would be collected, stored, and transported as described above with subsequent certified analyses for leachability using EPA Methods 1310 and SM 503 A&E for TOG and EPA Methods 3510/1310 for TPH-D and TPH-K.

Thank you for your assistance to date. If you have any questions, or if we may otherwise be of assistance, please contact either of the undersigned at (415) 455-4991.

Sincerely,

Tarlochan Nijjar, M.Sc.

Demin li. Sans

Environmental Microbiologist

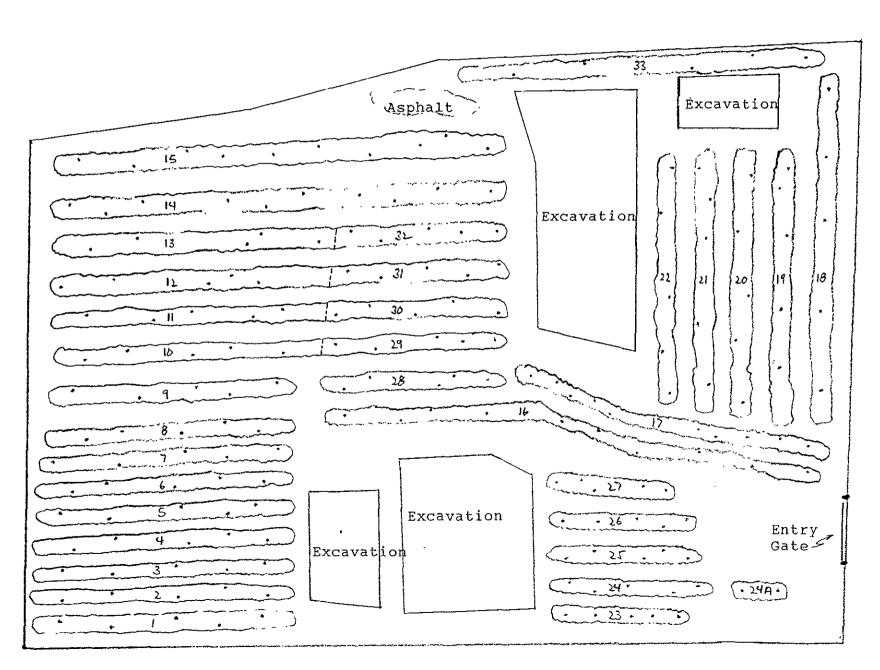
and

Denise A. Rapp

Vice-President, Uriah Inc.

cc: Mr. Richard Heitt, RWQCB





-- Mariner Square Loop --

SAMPLING REPORT
CONCERNING BIOREMEDIATED SOILS
AT
2410-2420 MARINER SQUARE LOOP
ALAMEDA, CA

MAY 17, 1990

Analytical Laboratory
Specializing in GC-GC/MS

May 10, 1990

Environmental Analysis

• Hazardous Waste (#238)

Drinking Water (#955)

Waste Water

Consultation

Chromatab File No.:

0590012

Page 1 of 2

0590014

URIAH ENVIRONMENTAL SERVICES, INC.

Attn: Terry Nijjar

RE: Thirty-five soil samples for TEPH and Oil & Grease analyses

Project Name: JOHN - BERRY

Date Sampled: May 2, 1990
Date Extracted: May 2-9, 1990
Date Analyzed: May 2-9, 1990

RESULTS;

Samp1e	Kerosene	Diesei	Oil & Grease
Na.	(mg/Kg)	(mg/Kg)	(mg/Kg)
1 () A	AL D	£1 He	
18A	N.D.	N.D.	270
188	N.D.	N.D.	51
18C	N.D.	N.D.	47
18D	N.D.	N.D.	50
1 B E	N.D.	N.D.	<b>55</b>
18F	N.D.	N.D.	51
19A	N.D.	N.D.	89
198	N.D.	N.D.	27
190	N.D.	N.D.	59
19D	N.D.	N.D.	48
20A	N.D.	N.D.	32
20 <del>8</del>	N.D.	N.D.	26
200	N.D.	N.D.	17
200	N.D.	N.D.	20
20€	N.D.	N.D.	28
21A	N.D.	N.D.	83
218	N.D.	N.D.	25
21C	N.D.	N.D.	100
210	N.D.	N.D.	31
21E	N.D.	N.D.	12
22A	N.D.	5.1	41
228	N.D.	N.D.	34
220	N.D.	N.D.	39
220	N.D.	N.D.	56
22E	N.D.	N.D.	31

Analytical Laboratory Specializing in GC-GC/MS

May 10, 1990

Environmental Analysis

(#238) Hazardous Waste

 Drinking Water (#955)

Waste Water

Consultation

Chromatab File No.:

0590012 0590013

Page 2 of 2

0590014

URIAH ENVIRONMENTAL SERVICES, INC.

Attn: Terry Nijjar

Thirty-five soil samples for TEPH and Oil & Grease analyses

JOHN - BERRY Project Name:

Date Submitted: May 2, 1990 Date Sampled: May 2, 1990 Date Analyzed: May 2-9, 1990 Date Extracted: May 2-9, 1990

#### RESULTS:

Sample	Kerosena	Diesel	Oil & Grease
No.	(mg/Kg)	(mg/Kg)	(mg/Kg)
23A	N.D.	8.0	1/6
238	N.D.	N.D.	N.D.
23 <b>C</b>	N.D.	6.9	12
23D	N.D.	5.4	24.
23E	N.D.	N.D.	29
24A	N.D.	6.9	N.D.
24B	N.D.	N.D.	N.D.
24C	N.D.	N.D.	24
24D	N.D.	N.D.	20
24E	N.D.	N.D.	13
BLANK	N.D.	N.D.	N.D.
SPIKED RECOVERY	89.3%	92.1%	Mile map office from
DUPLICATED SP. REC.	96.6%	108.0%	days also male may
DETECTION LIMIT	5	5	10
METHOD OF ANALYSIS	3550/8015	3550/8015	503 D&E

Chromatab, Inc.

C payid buong

Senior Chemist

Erio Tam

Laboratory Director

**Analytical Laboratory** Specializing in GC-GC/MS Environmental Analysis

 Hazardous Waste (#238)

 Drinking Water (#955)

Waste Water

Consultation

May 14, 1990

ChromaLab File No.:

0590050 0590051

Page 1 of 2

0590052

URIAH ENVIRONMENTAL SERVICES, INC.

0590053

Attn: Terry Nijjar

RE: Forty-six soil samples for TEPH and Oil & Grease analyses

Project Name: JOHN BERRY

Date Sampled: May 7, 1990 Date Submitted: May 7, 1990

Duration of Analysis: May 7-14, 1990

RESULTS:

Sample	Kerosene	Diesel	Oil &
· ·			Grease
No.	(mg/Kg)	(mg/Kg)	(mg/Kg)
25A	N.D.	N.D.	N.D.
25B	N.D.	N.D.	25
25C	N.D.	N.D.	53
25D	N.D.	N.D.	22
25E	N.D.	N.D.	12
26A	N.D.	N.D.	35
26B	N.D.	N.D.	14
26C	N.D.	N.D.	53
26D	N.D.	N.D.	17
26E	N.D.	N,D.	2.7
27A	N.D.	6.6	46
27B	N.D.	N.D.	36
27C	N.D.	N.D.	27
27D	N.D.	N.D.	55
28A	N.D.	N.D.	47
28B	N.D.	N.D.	33
28C	N.D.	N.D.	36
28D	N.D.	N.D.	78
28E	N.D.	N.D.	35
29A	N.D.	N.D.	14
29B	N.D.	N.D.	20
29C	N.D.	N.D.	77
29D	N.D.	N.D.	32
29E	N.D.	5.1	26
30 <b>A</b>	N.D.	N.D.	14
30B	N.D.	N.D.	20
30C	N.D.	N.D.	27
30D	N.D.	N.D.	17
30E	N.D.	N.D.	25
31A	N.D.	5.8	38
31B	N.D.	N.D.	40
31C	N.D.	N.D.	16

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**Analytical Laboratory** Specializing in GC-GC/MS Environmental Analysis

 Hazardous Waste (#238)

Drinking Water

(#955)

Waste Water

Consultation

May 14, 1990

ChromaLab File No.: Page 2 of 2

0590050 0590051

URIAH ENVIRONMENTAL SERVICES, INC.

0590052

0590053

Attn: Terry Nijjar

Forty-six soil samples for TEPH and Oil & Grease analyses RE:

Project Name: JOHN BERRY

Date Sampled: May 7, 1990 Date Submitted: May 7, 1990

Duration of Analysis: May 7-14, 1990

#### RESULTS:

Sample No.	Kerosene (mg/Kg)	Diesel (mg/kg)	Oil & Grease (mg/Kg)
31D	N.D.		
31E		N.D.	30
32A	N.D.	N.D.	78
328	N.D.	N.D.	40
32C	N.D.	N.D.	27
32D	N.D.	N.D.	48
32E	N.D.	N.D.	17
24F	N.D.	N.D.	32
24G	N.D.	N.D.	32
33A	N.D.	N.D.	18
338	N.D.	N.D.	35
33C	N.D.	N.D.	93
	N.D.	N.D.	31
33D	N.D.	N.D.	28
33E	N.D.	N.D.	
		11.51	48
BLANK	N.D.	N.D.	11 M
SPIKED RECOVERY	93.1%	84.9%	N.D.
DUPLICATED SPIKE RECOVERY	89.8%	84.2%	
DETECTION LIMIT	5		
METHOD OF ANALYSIS	3550/8015	5 3550/8015	50 503 D&E

ChromaLab, Inc.

bavid Duong

Senior Chemist

FRTam (by

Eric Tam Laboratory Director

HPLE T	O LAB VIA?	. wrocutvitae LIL	LAB ON STA	7AT. C	SCINUIST . AC.
MPLE#	SOIL/WATER PRODUCT	ANALYZE FOR	•	. # OF ONTAINERS	SINGLE/ COMPOSITE
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C		//	"	1 .	s
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	"		11	/	<u> </u>
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TE NAMI GULATOI GULATOI AB USED	E AND ADDRES	L:30(AM/PM, DATE S: 24/0-2420 ALAMEDA PRESENTATIVE PRESI PRESENTATIVE TITLE LAB Rep Friah S	MARINER ENT: ARIU L B: HAZ. MAT LAB ON SITE	SQ (O EVI SPE: Yes/no)	OLDE ALAMEDI
ample#	SOIL/WATER PRODUCT	ANALYZE FOR		# OF NTAINERS	SINGLE/ COMPOSITE
4 A	SOIL	TPH-D/TPH-K,	TOG 503-046		S .
1 B	и	//	4.		9
4 C.	/1	11	11		<u> </u>
(1 D	"/	·//	. //		<u>. s</u> .
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5A	//	Ÿ.	//	1	5
5 B	11	<i>"</i>	.11	.	S
5C	//	//	//	/	S
5 D	4	//	11		S
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66	//	11	//		<u></u> .
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ample#	SOIL/WATER PRODUCT	ANALYZE FOR		# of Tainers	SINGLE/
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7 A	//	. "	. "		. <u>S</u>
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8 A	//	"	//	1	S
3 B	11	11	//	1 .	2
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10 A	• " .	//		/	S
10 B	A	<i>(i</i>	//	1	5
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10 D	//	//	//	/	2
10 E	//	//	11	1 .	*· S
11 A	//	(/	11	/	5
11 B.	()	//	// .	1	S'
11C	//	11	1	/	<u> </u>
	Released by	•	SAMPLE ACCEP		
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/	"	AM/PM,//90	. • •	_	andrie d

EGULATOI Ab Used:	R <b>Y AGENCY</b> RE	PRESENTATIVE PRE	LAB ON SITE	? yes/mg	CAMEDA CO.
ample#	SOIL/WATER PRODUCT	ANALYZE FOR	 C(	· # OF ONTAINERS	Single/ Composite
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12B	4	• //	. 4	1	·
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mple#	SOIL/WATER PRODUCT	ANALYZE FOR		# OF TAINERS	SINGLE/ COMPOSITE
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4E	11	11	. //		. <u>.</u> .
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	4 F	Soil	TAH D/TAH-K, TOG	503D&E		S
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S B	LAB USED: CHROMA (AB LAB ON SITE? YES/NO) HAMPLE TO LAB VIA? Lab Rep (Uriah Staff) Courier							
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19D "  20A "  20B "  30C "  SAMPLE RELEASED BY:  SAMPLE ACCEPTED BY:	19C	//		<u> </u>	6			
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REGULATORY AGENCY REPRESENTATIVE PRESENT: REGULATORY AGENCY REPRESENTATIVE TITLE:  CAB USED: CHRONH LAB UTAB COurier  CAMPLE TO LAB VIA? Lab Rep Uriah Staff Courier							
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REGULATORY AGENCY REPRESENTATIVE PRESENT:  REGULATORY AGENCY REPRESENTATIVE TITLE:  LAB USED: CHROMA LARS LAB ON SITE? YES/NO SAMPLE TO LAB VIA? Lab Rep Uriah Staff) Courier							
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	, //	//	//	1	S.		
		•			***********		
Sample	RELEASED BY		SAMPLE ACC	EPTED BY:			
1000		155 AM/PM, 5/7/9		2	Canthin &		

28A V 08B . 11 28C 4,	ANALYZE FOR  IPH D/TPH-K  """""""""""""""""""""""""""""""""""		# OF ONTAINERS	SINGLE/COMPOSITE
28A V 06B . 11 28C 41	"	4	1	
28C "	######################################		1	S
28c "	***************************************	ý	4	
28D '".	11		1	S
		."		. S
0.00	//	4	**	٤
28E '/.	4	• ;	. 1	S
29 A ,,	//	4	1	S
29 15 "		٠ 4	. 1	S
290 "	11	1	1	٤
29.D "	N	"	1 .	4,
29E 11	11	4	1	S
30A: "	1/	7	1	Ċ
30B 1	//	11	1	Ş
SAMPLE RELEASED BY: Terry mijar 2:		SAMPLE ACC		<u></u>

ITE NAME	AND ADDRES	81 2410 - 240	•	: URIA SQ ALAM	H STAFF Loof EDA.
EGULATOR	Y AGENCY RE Y AGENCY RE <u>CUROPIA</u>	PRESENTATIVE PRE PRESENTATIVE TIT	CLE: LAB ON SITE?	ves (no	
AMPLE TO	LAB VIA?	Lab Rep Uriah	Staff Courier		
AMPLE#	SOIL/WATER PRODUCT	ANALYZE FOR		of Painers	SINGLE/ COMPOSITE
30C	Soil	TRH-D/TPH-K,	706, 503 DEE	1	<u>S</u>
300	4	//	• /,	1	
30E		//	4,		S
30 A	1/	i.	<i>''</i>		· S
316	, , .	//	4	1	S
310	• // •	4		1	S
31 D	4		11	_ 1	S
31E	/,	// ·	. //	. 1	S
32A	lı	//	"	)	S
32B	11	//	1	1 .	*. S
32c	4	1/	"/	1	S
32.D	4	V	<i>"</i>	1	<i>S</i> :
32E	If	//	11	(	S .
	***************************************	ethio ethio ethio mushamining ethio ishumbati equi		***************************************	
	RELEASED BY		SAMPLE ACCEP		
Terry			190 Esta		
-	//	AM/PM,//	/90	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	AM/PH,/_
_			/90		

REGULATORY AGENCY REPRESENTATIVE PRESENT: REGULATORY AGENCY REPRESENTATIVE TITLE: LAB USED:							
PLE#	SOIL/WATER PRODUCT	ANALYZE FOR	· · · · · · · · · · · · · · · · · · ·	· # OF ONTAINERS	SINGLE/		
rF	SOIL	TPH-D/7PH-K,	503 DFE	1			
4 Cx	'/	"	į	1	3		
> A	. 4	4	1	)	S		
B	11	. 11	. "	)	· S .		
3 <b>C</b>	' //	11	//	1	S		
>-D	, // .	//	. //	. 7	S		
36	′/	ic	//		<		
	<del>*************************************</del>		•	e destructives			
-	**************************************		Marie William Marie Medicine and company and		4 ·.		
-							
,			•	· · · · · · · · · · · · · · · · · · ·	-		
-			*		***************************************		
•							

REGULATORY AGENCY REPRESENTATIVE PRESENT:  REGULATORY AGENCY REPRESENTATIVE TITLE:  LAB USED: (*(**C*(**)** /*) *** LAB ON SITE? yes/no)  SAMPLE TO LAB VIA? Lab Rep Uriah Staff Courier							
AMPLE#	SOIL/WATER PRODUCT	ANALYZE FOR		‡ of Tainers	SINGLE/ COMPOSITE		
41	SOIC,	LL'HUMBILITY 1310 4		1	<u> </u>		
42	***************************************	3510/1310 for TP1	H-D <del>f</del> TPH-K	1	C.		
L3		'4	1,		<u> </u>		
64	"	и	, <u> </u>		. s		
L5	· // .	4	′,	. 1			
46	1 // 1	/;	· // .	!	S		
47	/,	· //	4	1	5		
L8	/,	//	. 1/	. (	2.		
L9	1,	//	11	1	S		
L10	11	(1	),		·		
L11	/,		11	1	5		
L12	/	//	1,	1	2.		
L13	/	//	<u></u>	1	(		
	<del></del>		SAMPLE ACCE	***************************************	gandiningunişininkçin bişinin birinin milli		

SAMPLING COMPLETED: 2:50 AM/PM, DATE: 5/2/90 BY: URIAH STAFF SITE NAME AND ADDRESS: 2410 2420 DIARINER SO COOL  REGULATORY AGENCY REPRESENTATIVE PRESENT:								
EGULATOR AB USED:	Y AGENCY RE	PRESENTATIVE TITLE:	AB ON SITE?					
	SOIL/WATER PRODUCT	Lab Rep Qriah Sta		# OF TAINERS	SINGLE/ COMPOSITE			
23B	SOIL	TRH.D/78H-K, TO	6503 04	5 /	<u> </u>			
23C_	1/	11	. //					
2.3.D	"	//	1		S			
13 E.	<i>"</i>	· r	, "		· <u>s</u>			
24 A	' //	11	11	4	S			
24,8	. // .	11	4	1	S			
24C	11	Ÿ	7/	1	\$			
24 D	11	4 .	1	. 1	S			
24€	1)	//	11		5			
	<del></del>		······································	8	4 .			
	<del></del>			<u>ф</u>				
,	<del></del>		,	<u></u>	•			
	*************			<u> </u>				
	**************************************			41				
SAMPLE 1	RELEASED BY	1	SAMPLE ACCE	PTED BY:				
Tell	1 ~//263	45AM/PM, 5/2/902	Tacola	3,	4tam/pu, 4/2			
7		AM/PM,/_/90						
		AM/PM,//90						

REGULATORY AGENCY REPRESENTATIVE PRESENT:  REGULATORY AGENCY REPRESENTATIVE TITLE:  LAB USED: CHROPIA LAR LAB ON SITE? YES/10  SAMPLE TO LAB VIA? Lab Rep Wriah Staff Courier							
SAMPLE#	SOIL/WATER PRODUCT	ANALYZE FOR		♯ OF TAINERS	SINGLE/ COMPOSITE		
L14	SOIL	13/04 503A 4E for		1.	\$		
415	<i>a</i>	for Throse 1PH-	· IC	1	8		
L17	(1	//	//	1	S		
L19	la	4	. 4	1	. s		
L21	· 1/ ·	//	11	.(	S		
L23	, 4 .	1	4	1	5		
L25	4	i	11		S		
<del></del>		<i>₹</i>	. 6	•	8		
		£	*	************			
<del></del>	<del></del>				4 ·.		
**************************************							
			$\cap$	**************************************			
		1	SAMPLE ACCES	men ev.			

Analytical Laboratory Specializing in GC-GC/MS Environmental Analysis

Hazardous Waste (#238)

• Drinking Water (#955)

Waste Water

Consultation

May 7, 1990

ChromaLab File No.: 0490125 Page 2 of 3

URIAH ENVIRONMENTAL SERVICES, INC.

Attn: Terry Nijjar

RE: Seventy-Four soil samples for TEPH and Oil & Grease analyses

Project Name: JOHN - BERRY

#### RESULTS:

Sample No.	Kerosene (mg/Kg)	Diesel	Oil & Grease
	(1119/159)	(mg/Kg)	(mg/Kg)
6D	N.D.		
6E	N.D.	N.D.	37
7A	N.D.	5.2	18
7B	N.D.	N.D.	54
7C"	N.D.	N.D.	41
7D	N.D.	N.D.	42
7E	N.D.	N.D.	95
8A	N.D.	N.D.	24
8B '	N.D.	5.1	29
8C	N.D.	N.D.	21
8D	N.D.	N.D.	72
8E	N.D.	N.D.	100
9A		N.D.	49
9 <del>B</del>	N.D.	N.D.	120
90	N.D.	N.D.	34
9D	N.D.	N.D.	49
9E	N.D.	N.D.	56
10A	N.D. N.D.	5.1	33
10B		5.3	32
10C	N.D.	N.D.	57
10D	N.D.	N.D.	82
10E	N.D.	N.D.	73
11A	N.D.	N.D.	42
11B	N.D.	N.D.	36
11C	N.D.	Ñ.D.	24
11D	N.D.	N.D.	73
11E	N.D.	8.1	49
12A	N.D.	N.D.	59
12B	N.D.	7.3	65
12C	. N.D.	N.D.	26
12D	N.D.	N.D.	25
12E	N.D.	N.D.	41
13A	N.D.	N.D.	110
13B	N.D.	6.7	92
100	N.D.	N.D.	34

Continued

Analytical Laboratory Specializing in GC-GC/MS Environmental Analysis

Hazardous Waste (#238)

Drinking Water (#955)

Waste Water

er

Consultation

May 7, 1990

ChromaLab File No.: 0490125

Page 3 of 3

URIAH ENVIRONMENTAL SERVICES, INC.

Attn: Terry Nijjar

RE: Seventy-Four soil samples for TEPH and Oil & Grease analyses

Project Name: JOHN - BERRY

#### RESULTS:

Sample No.	Kerosene (mg/Kg)	Diesel (mg/Kg)	Oil & Grease (mg/Kg)
130	N.D.	<b>5</b> A	
130	N.D.	5.2	39
13E		N.D.	26
14A	N.D.	12	41
148	N.D.	12	5გ
14C	N.D.	9.4	43
	N.D.	9.9	22
14D	N.D.	12	31
14E	N.D.	N.D.	22
15A	N.D.	5.6	16
15B	N.D.	6.0	14
15C	N.D.	6'. 6	48
15D	N.D.	7.0	
15E	N.D.	9.4	49
		5.4	59
BLANK	N.D.	N.D.	
SPIKED RECOVERY			N.D.
DUPLICATED SPIKE		89.9%	
RECOVERY	<del></del>	91.0%	
DETECTION LIMIT	5	5	10
METHOD OF ANALYSIS	3550/8015	3550/8015	503 D&E

ChromaLab, Inc.

David Duong

Senior Chemist

Eric Tam

Laboratory Director

Analytical Laboratory Specializing in GC-GC/MS May 9, 1990

Environmental Analysis

. Hazardous Waste (#238)

Drinking Water

(#955)

Waste Water

Chromatab File No.:

0590003

URIAH ENVIRONMENTAL SERVICES, INC. Attn: Terry Nijjar

Twenty-five soil samples for TEPH and Oil & Gresse analyses

Project Name: JOHN - BERRY Date Sampled: May 1, 1990 Date Submitted: May 1, 1990

Duration of Analysis: May 1-8, 1990

RESULTS: Sample	Kerosene (mg/Kg)	Diesel (ms/Ks)	Oil & Grease (mg/Kg)
14F 14G 14H 14I	N.D. N.D. N.D.	N.D. N.D. N.D.	31 53 53
14J 15F 15G 15H 15I	N.D. N.D. N.D. N.D.	N.D. N.D. N.D. N.D.	28 20 18 44 14
15J 16A 16B 16C 16D	N.D. N.D. N.D. N.D.	N.D. N.D. N.D. N.D.	23 64 170 59 39
16E 16F 16G 16H 16I	N.D. N.D. N.D. N.D.	N.D. N.D. N.D. N.D.	41 44 81 43 88
16J 17A 17B 17C	N.D. N.D. N.D.	N.D. N.D. N.D.	47 59 18 74
17D 17E BLANK SPIKED RECOVERY	N.D. N.D. 107.6%	N.D. N.D. 92.1%	44 83 N.D.
DUPLICATED SP. REC. DETECTION LIMIT METHOD OF ANALYSIS	91.3% 5 3550/8015	103.0% 5 3550/8015	10 503 D&E

ChromaLab, Inc.

( Dayid Duong Senior Chemist Eric Tam

Laboratory Director

**Analytical Laboratory** Specializing in GC-GC/MS Environmental Analysis

 Hazardous Waste (#238)

 Drinking Water (#955)

Waste Water

Consultation

May 7, 1990

ChromaLab File No.:

0490125 0490126

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0490127

0490128

URIAH ENVIRONMENTAL SERVICES, INC.

0490129 0490130

Attn: Terry Nijjar

RE: Seventy-Four soil samples for TEPH and Oil & Grease analyses

Project Name: JOHN - BERRY April 30, 1990 Date Sampled: Date Submitted: April 30, 1990

Date Extracted: April 28-May 6, 1990 Date Analyzed: April30-May 7, 1990

#### **RESULTS:**

Sample	W =	-1 -	Oil &
	Kerosene	Diesel	Grease
No.	(mg/Kg)	(mg/Kg)	<u>(mg/Kg)</u>
1 A	N.D.	N 6	
1B		N.D.	26
10	N.D.	N.D.	22
2A	N.D.	N.D.	59
	N.D.	N.D.	34
2B	N.D.	N.D.	17
2C	N.D.	N.D.	26
2D	N.D.	N.D.	23
2E	N.D.	N.D.	88
3A	N.D.	5.4	38
3B	N.D.	N.D.	23
3C	N.D.	N.D.	23
3D	N.D.	N.D.	19
3E	N.D.	N.D.	47
4A	N.D.	N.D.	24
4B	N.D.	N.D.	20
4C	N.D.	N.D.	26
4D	N.D.	N.D.	
4E	N.D.	5.3	27
4F	N.D.		40
5A	N.D.	N.D.	<b>5</b> 5
5B	N.D.	N.D.	16
5C		6.2	30
5D	N.D.	N.D.	16
5E	N.D.	N.D.	79
	N.D.	N.D.	68
6A	N.D.	N.D.	53
6 <b>B</b>	N.D.	N.D.	32
6C	N.D.	N.D.	. 32

Continued

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