

ALL ENVIRONMENTAL, INC.

Environmental Engineering & Construction

October 22, 1996
Project No. 1464

RECEIVED

By Alameda County Environmental Health 3:36 pm, Sep 12, 2016

Mr. Horst Bruenjes
KPBS
5200 Campanile Drive
San Diego, CA 92182-5400

Subject: Soil and Groundwater Investigation
Shiley Building
2447 Santa Clara Avenue, Alameda, California

Dear Mr. Bruenjes:

The following letter report describes the activities and results of the subsurface investigation conducted by All Environmental, Inc. (AEI) at the above referenced property. The investigation was conducted in response to your request to investigate for the presence of potential hydrocarbon contamination due to the existence of a former gasoline service station on site as identified by AEI's Phase I Environmental Site Assessment (ESA), dated August 8, 1996.

I Property Description and Background

One 15,102 square foot, three-story, wood-framed stucco commercial office building is located on the 7,703 square foot property (Attachment A: Site Location Map).

According to AEI's ESA, the site was identified as a gasoline service station in the April, 1950, and July, 1959 aerial photograph reviews. Sanborn maps for the years 1948 and 1950 confirm the fact that a business utilizing oil and gas was located at the site. According to a list of historic underground storage tanks in the city of Alameda provided by the Alameda Fire Department, a total of 10 USTs were at one time installed on the site.

A subsurface investigation was subsequently requested to assess the potential presence of hydrocarbon contamination at the site.

II Investigative Efforts

All Environmental, Inc. (AEI) performed a subsurface investigation at the site on October 9, 1996. The investigation included the advancement of six soil borings using a Geoprobe drilling rig. Based upon information from an adjacent site, groundwater in the area flows to the northeast. Soil borings were advanced northeast of the previous gasoline service station on the site. The borings were advanced to a depth of approximately 15 feet below ground surface (bgs). Refer to Attachment B: Site Plan for soil boring locations. Groundwater was encountered at approximately 8 feet bgs during the advancement of the borings. The near surface sediments encountered during the boring advancement were composed of well sorted dark yellowish orange silty sands.

Soil samples were collected at depths of 5, 10, and 15 feet bgs. Soil samples taken at 10 feet bgs in BH1 and those at 5 feet bgs in BH2, BH3, BH4, BH5, and BH6 were submitted for analysis. Groundwater was encountered at approximately 8 feet bgs during the advancement of the borings. A single grab groundwater sample was collected from each of the borings using a pre-cleaned stainless steel bailer. Water was poured from the bailer into 40 ml VOA vials and 1 liter amber bottles and capped with no head space or visible air bubbles within the sample containers.

Corporate Headquarters:

3364 Mt. Diablo Blvd.
Lafayette, CA 94549
Phone: (510) 283-6000

Los Angeles Office:

111 N. Sepulveda Blvd., #250
Manhattan Beach, CA 90266
Phone: (310) 328-8878

All soil and groundwater samples were shipped under chain of custody documentation to McCampbell Analytical, Inc. laboratory in Pacheco and analyzed for Total Petroleum Hydrocarbons (TPH) as gasoline (EPA method 5030/8015), TPH as diesel (EPA method 8015/3510), methyl tertiary butyl ether (MTBE), and benzene, toluene, ethylbenzene and xylenes (BTEX) (EPA method 8020/602).

IV Findings

The soil and groundwater samples collected during the subsurface investigation were transported to McCampbell Analytical, Inc. (DOHS Certification Number 1644) on October 9, 1996.

Analysis of groundwater samples indicated between 130 ppb and 2,800 ppb TPH as diesel. Mr. Edward Hamilton, laboratory director for McCampbell Analytical, Inc., indicated that the diesel concentrations were due in part to the large percentage of sediment within the samples. Contaminants generally cling to the surface of mineral grains and, when analyzed along with groundwater, can magnify analytical results. Mr. Hamilton also stated that the gas chromatograph diagrams generated for the samples contained no recognizable patterns generally consistent with TPH as diesel analysis, but that a value for TPH as diesel must be reported as part of this type of analysis.

All other soil and groundwater contaminant concentrations were not present above the detection limit with the exception of 170 ppb TPH as gasoline and 0.64 ppb toluene in samples from BH1.

The following tables summarizes the soil and groundwater analytical results. The analytical results and chain of custody are included as Attachment C.

TABLE 1 - Soil Analytical Data

SAMPLE	TPH-GASOLINE (mg/kg)	MTBE (mg/kg)	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	XYLENES (mg/kg)	TPH-DIESEL (mg/kg)
BH1, 10' bgs	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	<1.0
BH2, 5' bgs	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	<1.0
BH3, 5' bgs	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	<1.0
BH4, 5' bgs	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	<1.0
BH5, 5' bgs	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	<1.0
BH6, 5' bgs	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	<1.0

mg/kg = Parts Per Million (ppm)

TABLE 2 - Groundwater Analytical Data

SAMPLE	TPH-GASOLINE (ug/L)	MTBE (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	XYLENES (ug/L)	TPH-DIESEL (ug/L)
BH1	170	<5.0	<0.5	0.64	<0.5	<0.5	240
BH2	<50	<5.0	<0.5	<0.5	<0.5	<0.5	210
BH3	<50	<5.0	<0.5	<0.5	<0.5	<0.5	660
BH4	<50	<5.0	<0.5	<0.5	<0.5	<0.5	2800
BH5	<50	<5.0	<0.5	<0.5	<0.5	<0.5	730
BH6	<50	<5.0	<0.5	<0.5	<0.5	<0.5	130

ug/L = Parts Per Billion (ppb)

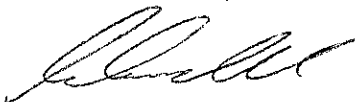
V Recommendations/Additional Investigations

Analytical results from the subsurface investigation revealed a maximum concentration of 2,800 ppb TPH as diesel in groundwater beneath the site. However, Mr. Edward Hamilton, laboratory director of McCampbell Analytical, Inc., indicated that the soil and groundwater results do not indicate the presence of diesel fuel contamination at the site. All other contaminant concentrations were either low or not present at detectable concentrations within both soil and groundwater samples.

Due to the results of this subsurface investigation, AEI does not believe that any additional investigative or remedial actions are warranted.

If you have any questions regarding our investigation, please do not hesitate to contact me at (510) 283-6000.

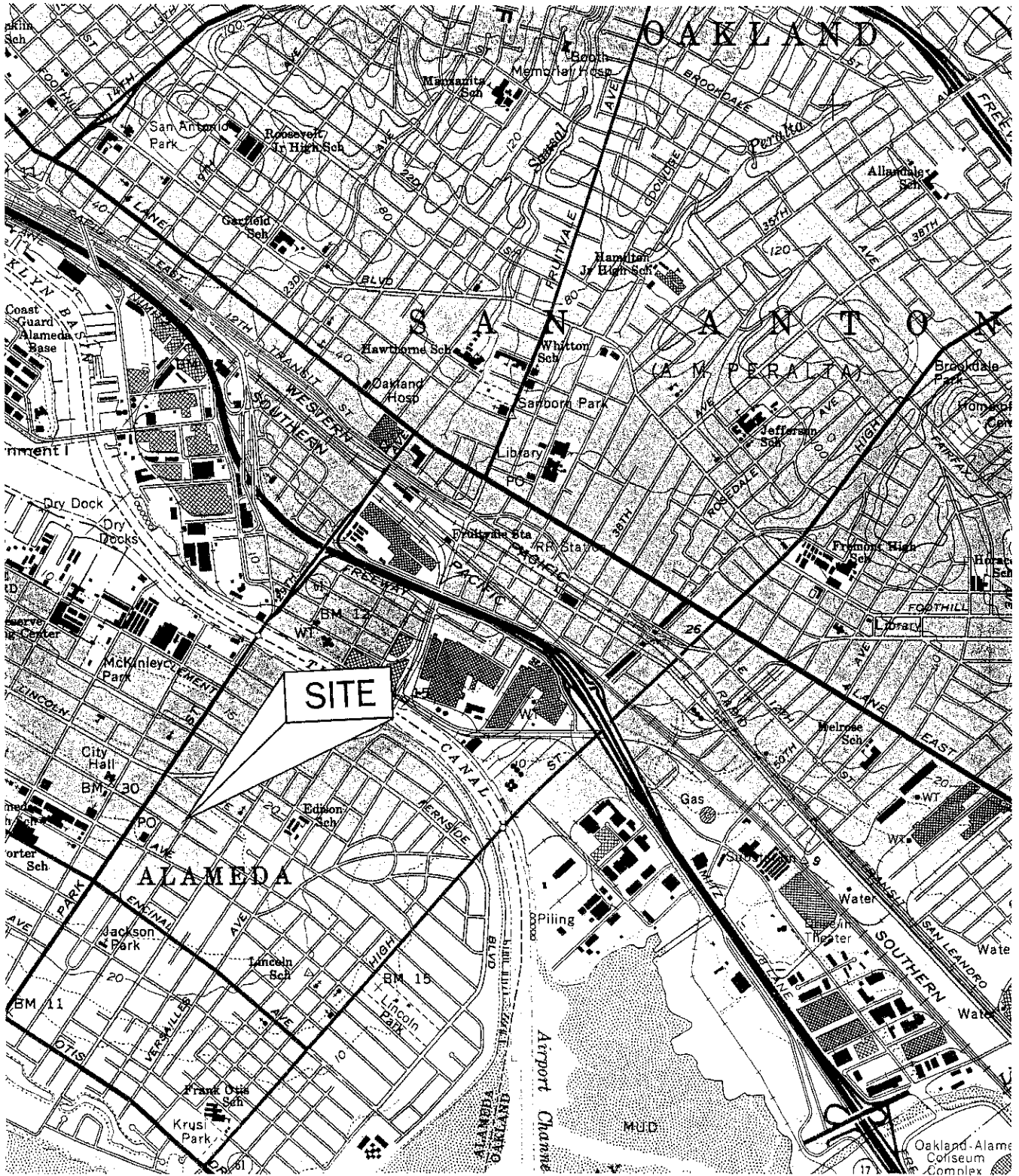
Sincerely,
All Environmental, Inc.



Bryan Campbell
Project Geologist

Attachment A
Attachment B
Attachment C

cc: Mr. Jeff Bruesseau, KPBS, 5050 Arenida Encinas, #350, Carlsbad CA 92008



FROM:
 US GEOLOGICAL SURVEY
 OAKLAND EAST QUADRANGLE
 7.5 MINUTE SERIES
 PHOTOREVISED 1980

ALL ENVIRONMENTAL, INC.
 3364 MT. DIABLO BOULEVARD, LAFAYETTE, CA

SCALE: 1:24000

APPROVED BY:

DRAWN BY:

DATE:

REVISED:

SITE LOCATION MAP

2447 SANTA CLARA AVENUE
 ALAMEDA

DRAWING NUMBER:
 FIGURE 1

ASSUMED
GROUND WATER FLOW
DIRECTION

SINGLE FAMILY HOMES

WALL

PARKING LOT

PARKING
GARAGE

THREE STORY
PORTION

BH6

BH5

BH4

BH3

BH2

BH1

ONE STORY
PORTION

SIDEWALK

SIDEWALK

EVERETT STREET

JERRY'S
AUTO CENTER

2501
SANTA CLARA
AVENUE

PARKING LOT

MAIN ENTRANCE

SANTA CLARA AVENUE



ALL ENVIRONMENTAL, INC.
3364 MT. DIABLO BOULEVARD, LAFAYETTE, CA

SCALE:

APPROVED BY:

DRAWN BY:

DATE:

REVISED:

SITE MAP

2447 SANTA CLARA AVENUE
ALAMEDA

DRAWING NUMBER:
FIGURE 2

All Environmental, Inc. 3364 Mt. Diablo Blvd. Lafayette, CA 94549	Client Project ID: # 1464; KPBS	Date Sampled: 10/09/96
		Date Received: 10/09/96
	Client Contact: Bryan Campbell	Date Extracted: 10/09-10/10/96
	Client P.O:	Date Analyzed: 10/09-10/11/96

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*
EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g) ⁺	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	% Rec. Surrogate
70027	BH1, S-2, 10'bgs	S	ND	ND	ND	ND	ND	ND	95
70028	BH2, S-1, 5'bgs	S	ND	ND	ND	ND	ND	ND	106
70031	BH3, S-1, 5'bgs	S	ND	ND	ND	ND	ND	ND	98
70033	BH4, S-1, 5'bgs	S	ND	ND	ND	ND	ND	ND	111
70035	BH6, S-1, 5'bgs	S	ND	ND	ND	ND	ND	ND	99
70037	BH5, S-1, 5'bgs	S	ND	ND	ND	ND	ND	ND	99
70039	BH1	W	170,b,i	ND	ND	0.64	ND	ND	100
70040	BH2	W	ND,i	ND	ND	ND	ND	ND	103
70041	BH3	W	ND,i	ND	ND	ND	ND	ND	98
70042	BH4	W	ND,i	ND	ND	ND	ND	ND	102
70043	BH6	W	ND,i	ND	ND	ND	ND	ND	99
70044	BH5	W	ND,i	ND	ND	ND	ND	ND	98
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W	50 ug/L	5.0	0.5	0.5	0.5	0.5	0.5	
	S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, soil and sludge samples in mg/kg, and all TCLP extracts in mg/L

cluttered chromatogram; sample peak coelutes with surrogate peak

* The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~ 5 vol. % sediment; j) no recognizable pattern.

All Environmental, Inc. 3364 Mt. Diablo Blvd. Lafayette, CA 94549	Client Project ID: # 1464, KPBS	Date Sampled: 10/09/96
		Date Received: 10/09/96
	Client Contact: Bryan Campbell	Date Extracted: 10/09-10/10/96
	Client P.O.:	Date Analyzed: 10/09-10/10/96

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *

EPA methods modified 8015, and 3550 or 3510. California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d) ⁺	% Recovery Surrogate
70027	BH1, S-2, 10'bgs	S	ND	100
70028	BH2, S-1, 5'bgs	S	ND	99
70031	BH3, S-1, 5'bgs	S	ND	100
70033	BH4, S-1, 5'bgs	S	ND	100
70035	BH6, S-1, 5'bgs	S	ND	100
70037	BH5, S-1, 5'bgs	S	ND	101
70039	BH1	W	240,b/g,i	115
70040	BH2	W	210,g,i	112
70041	BH3	W	660,g,i	101
70042	BH4	W	2800,g,i	103
70043	BH6	W	130,b/g,i	98
70044	BH5	W	730,g,i	108
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W	50 ug/L		
	S	1.0 mg/kg		

* water samples are reported in ug/L, soil and sludge samples in mg/kg, and all TCLP and STLC extracts in mg/L

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or, surrogate peak is on elevated baseline, or, surrogate has been diminished by dilution of original extract.

+ The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant; d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~ 5 vol. % sediment.

Chain of Custody

ALL ENVIRONMENTAL, INC.

1364 Mt. Diablo Boulevard

afayette, CA 94549

510) 283-6000 FAX: (510) 283-6121

DATE: 10/9/96 PAGE: 1 OF: 2

7380 AALE 92

VEI PROJECT MANAGER: Bryan Campbell
 PROJECT NAME: KPBS
 PROJECT NUMBER: 1464
 SIGNATURE: [Signature]
 TOTAL # OF CONTAINERS: _____
 RECD. GOOD COND./COLD: _____

ANALYSIS REQUEST

SAMPLE I.D.	DATE	TIME	MATRIX	ANALYSIS REQUEST											NUMBER OF CONTAINERS			
				TPH-Gasoline (EPA 5050.8015)	TPH-Gasoline (EPA 5050.8015) w/ BTEX and MTBE (EPA 802.8020)	TPH-Diesel (EPA 8010/3550.8015)	PURCEABLE AROMATICS BTEX and MTBE (EPA 602.8020)	TOTAL OIL & GREASE (EPA 5520.8015)	TOTAL LEAD (AA) (EPA 7450)	VOLATILE ORGANIC COMPOUNDS (EPA 8240)	LIPT Metals (EPA 7130.7180, 7480, 7520, 7610)	STLC CUM 17 (EPA 1310/6010)	PCB ACTIVITY CORROSIIVITY Type 2 (EPA 8080.21-2)					
BH1, S-2, 10' bgs	10/9	9:45	Soil	X	X													70027
BH2, S-1, 5' bgs		10:05		X	X													70028
BH2, S-2, 10' bgs		10:10		Hold														70029 H
BH2, S-3, 15' bgs		10:25		Hold														70030 H
BH3, S-1, 5' bgs		10:36		X	X													70031
BH3, S-2, 10' bgs		10:45		Hold														70032 H
BH4, S-1, 5' bgs		11:05		X	X													70033
BH4, S-2, 10' bgs		11:15		Hold														70034 H
BH6, S-1, 5' bgs		11:43		X	X													70035
BH6, S-2, 10' bgs		11:59		Hold														70036 H
BH5, S-1, 5' bgs		12:17		X	X													70037
BH5, S-2, 10' bgs	✓	12:37	✓	Hold														70038 H

VOAS | O&G | METALS | OTHER

ICE/T
 GOOD CONDITION
 HEAD SPACE ABSENT
 PRESERVATIVE APPROPRIATE CONTAINERS

ANALYTICAL LAB: _____
 ADDRESS: _____
 PHONE: () _____ FAX: () _____
 INSTRUCTIONS/COMMENTS:
All 48 Hour Turn Around

RELINQUISHED BY: 1
 Signature: [Signature]
 Printed Name: Bryan Campbell
 Company: AET
 Time: 7:20 Date: 10/9

RECEIVED BY: 1
 Signature: [Signature]
 Printed Name: Dan Wheeler
 Company: M&T
 Time: 7:20 Date: 10/9

RELINQUISHED BY: 2
 Signature: _____
 Printed Name: _____
 Company: _____
 Time: _____ Date: _____

Signature: _____
 Printed Name: _____
 Company: _____
 Time: _____ Date: _____

Chain of Custody

ALL ENVIRONMENTAL, INC.
 3364 Mt. Diablo Boulevard
 Lafayette, CA 94549
 510) 283-6000 FAX: (510) 283-6121

DATE: 10/19 PAGE: 2 OF: 2

7380AALE92

VEI PROJECT MANAGER: Brya Campbell
 PROJECT NAME: KPBS
 PROJECT NUMBER: 1464
 SIGNATURE: [Signature]
 TOTAL # OF CONTAINERS: _____
 RECD. GOOD COND./COLD: _____

ANALYSIS REQUEST

SAMPLE I.D.	DATE	TIME	MATRIX	TPH-Cermetine (EPA 5030.8015)	TPH-Cermetine (EPA 5030.8015) w/ BTEX and MTBE (EPA 802.8020)	TPH-Diesel (EPA 3510/3550.8015)	PURGEABLE AROMATICS BTEX and MTBE (EPA 802.8020)	TOTAL OIL & GREASE (EPA 5620.7-01)	TOTAL LEAD (AA) (EPA 7450)	VOLATILE ORGANIC COMPOUNDS (EPA 8240)	LUFT Metals (EPA 71.71.01, 7450, 7530, 7050)	STLC CAM 17 (EPA 1510/6010)	RCR REACTIVITY CORROSIIVITY, FLAMMABILITY (EPA 802.1, 21-3)	NUMBER OF CONTAINERS
				BH1	10/19		Water	X	X					
BH2				X	X									70040
BH3				X	X									70041
BH4				X	X									70042
BH6				X	X									70043
BH5				X	X									70044

ICE/ GOOD CONDITION HEAD SPACE ABSENT
 PRESERVATIVE APPROPRIATE CONTAINERS
 VOAS LOGS METALS OTHER

ANALYTICAL LAB: _____
 ADDRESS: _____
 PHONE: () _____ FAX: () _____
 INSTRUCTIONS/COMMENTS:
All 48 Hour Turn Around

RELINQUISHED BY: 1
[Signature]
 Signature
Brya Campbell
 Printed Name
AEL
 Company
 Time 7:20 Date 10/19

RECEIVED BY: 1
[Signature]
 Signature
Jane Becker
 Printed Name
MAE
 Company
 Time 7:20 pm Date 10/19

RELINQUISHED BY: 2

 Signature

 Printed Name

 Company

 Date

RECEIVED BY: 2

 Signature

 Printed Name

 Company

 Date