Allterra Environmental, Inc. 849 Almar Avenue, Suite C No. 281 Santa Cruz, California 95060

RECEIVED

9:28 am, Dec 02, 2010

Alameda County Environmental Health

Client: Project Location: Subject: Report Date: Mr. Manwel Shuwayhat 160 Holmes Street, Livermore, California Interim Remedial Action Status Report November 10, 2010

To Whom It May Concern:

I have reviewed the report referenced above and approve its distribution to the necessary regulatory agencies. Should any of the regulatory agencies require it, "I declare, under penalty of perjury, that the information contained in the attached proposal or report is true and correct to the best of my knowledge."

Sincerely,

Manwel Shuwayhat

November 10, 2010 Project No.: 160

Manwel and Samira Shuwayhat 54 Wolfe Canyon Road Kentfield, California 94904

SUBJECT: Interim Remedial Action Status Report, Fuel Leak Case No. RO0000324, 160 Holmes Street, Livermore, California

ALLTERRA

Dear Manwel and Samira Shuwayhat:

On your behalf, Allterra Environmental, Inc. (Allterra) has prepared this interim remedial action status report to document work conducted at the property located at 160 Holmes Street in Livermore, California (Site). This report documents field observations and data collected while conducting pilot scale system operation and maintenance during fourth quarter of 2010.

Site Location and Description

The subject property is located at the northeast intersection of Holmes Street and Second Street, in Livermore, California (Figure 1). A Vallero fuel station currently occupies the Site and the surrounding area is primarily residential with some retail businesses along 1st and 2nd Streets. The approximate surface elevation of the site is 465 feet above mean sea level (MSL) and slopes to the northwest. Pertinent site features, including the locations of the former underground storage tanks (USTs), existing monitoring and extraction wells, and previous soil borings are presented in Figure 2.

Interim Remedial Action

Based on the results of pilot scale remedial operations performed during the second quarter of 2010 and a subsequent meeting with the Alameda County Environmental Health Services (ACEHS) on August 18, 2010, Allterra recommended implementation of additional interim remedial action that would be adaptive to Site conditions. The preferred method of interim remedial action at the Site was contingent upon measured groundwater levels within the area of concern (immediately down-gradient of the former UST pit). If groundwater elevations remained high, interim groundwater extraction (GWE) would be considered the most effective method for contaminant mass removal. However, if groundwater elevations dropped significantly (as they did in 2008-2009), interim soil vapor extraction (SVE) would be considered the most effective method for contaminant mass removal.

Current Site Conditions

On October 7 and 12, and November 4, 2010, Allterra personnel measured depths to groundwater in monitoring and extraction wells near the area of concern (MW-1A, MW-3A, EW-1, EW-2, and EW-3). These measurements indicated that groundwater elevations had not dropped significantly since the second quarter of 2010. Also, because the measured depth to groundwater in EW-3 on October 7, 2010 was 26.60 feet below ground surface (bgs), performing SVE at this well would liklely produce a mounding affect in the water column, thus completely blinding off the well screen (25 to

30 feet below top of casing) and limiting the effectiveness of SVE. Therefore, GWE was determined to be the preferred method of interim remedial action in the area of concern at this time.

Remediation Compound

To facilitate interim remedial activities, a temporary remediation compound was constructed along the northeastern edge of the property (Figure 2). The compound consists of conveyance piping, two 55-gallon carbon treatment drums, and two 2,400-gallon low-profile storage tanks to contain extracted and treated groundwater prior to batch discharge to the sanitary sewer.

Interim GWE Activities

On October 7, 2010, Allterra personnel attempted GWE from well EW-3 located in the area of concern. However, the measured sustainable pumping rate during extraction from EW-3 was only approximately 0.5 gallons per minute (gpm). In an effort to increase the total volume of impacted groundwater extracted and treated during interim remedial activities, Allterra personnel initiated GWE from well EW-1 on October 12, 2010. EW-1 is located downgradient from EW-3, but still lies within the area of concern. The measured sustainable pumping rate during extraction from EW-1 was approximately 5.0 gpm. To date, the interim GWE system has removed a total of approximately 7,200 gallons of impacted groundwater from EW-1 and two 2,400-gallon batches (4,800 gallon total) were sampled and discharged to the sanitary sewer system.

Interim GWE field activities included collection of groundwater samples for laboratory analyses, recording system operation data (total flows and flow rates, groundwater elevations, qualitative observations, etc.), and collecting data from observation wells. System data, such as groundwater elevations, flow rates, and sample results, are presented in Tables 1 through 3.

Sample Collection

On October 28 and November 4, 2010, Allterra collected stream samples from groundwater entering the storage tanks (GW-IN) and from treated water (Tank-2) prior to discharge to the sanitary sewer system. GW-IN samples were collected to determine dissolved contaminant masses removed during interim GWE activities. Sample analytical results are presented in Table 2.

Laboratory Analysis

Groundwater samples from the GWE activities were submitted under chain-of-custody protocol to McCampbell Analytical, Inc. of Pacheco, California, a state of California certified laboratory (ELAP #1644). Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8015C modified, and for benzene, toluene, ethylbenzene, xylenes (BTEX), and methyl tert-butyl ether (MTBE) by EPA Method 8021B. The certified analytical reports for the samples, including quality assurance and quality control (QA/QC) data, are included in Appendix A.

Interim Remedial Action Results

Since the commencement of interim GWE activities on October 12, 2010, the GWE system has removed approximately 7,200 gallons of impacted groundwater from extraction well EW-1 and two 2,400-gallon batches (4,800 gallon total) were sampled and discharged to the sanitary sewer system. GWE data including flow rates and volumes is presented in Tables 3 and 4. Analytical



results for samples collected from the groundwater influent stream (GW-IN) and from treated water prior to discharge (Tank-2) on October 28 and November 4, 2010 are summarized below:

Sample ID	Date	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
Extraction	Well EW-1	(results in µ	g/L)				
GW-IN	10/28/10	180	3.7	1.0	< 0.5	2.8	3,400
	11/4/10	790	20	3.0	39	76	6,900
Prior to Di	scharge (Ta	nk-2) (resul	ts in µg/L)				
Batch-1	10/28/10	<50	< 0.5	< 0.5	< 0.5	<0.5	<5.0
Batch-2	11/4/10	<50	< 0.5	< 0.5	< 0.5	< 0.5	<5.0

Additionally, analytical data from GWE samples are presented in Table 2 and certified analytical reports are attached as Appendix A.

Interim GWE Mass Removal

To date, the interim GWE system has removed, treated, and discharged approximately 4,800 gallons of impacted groundwater from EW-1 (two 2,400-gallon batches). Based on the volume of groundwater processed and laboratory analytical results, the GWE system has currently removed a total of approximately 0.019 pounds of TPHg, 0.00047 pounds of benzene, and 0.21 pounds of MTBE (Table 5).

Conclusions

Based on data collected during April 2010, Allterra concludes the following:

- Groundwater elevations in site wells continue to remain high; therefore interim GWE was considered the most effective method for contaminant mass removal in the area of concern.
- Since October 12, 2010, the interim GWE system has removed approximately 7,200 gallons of groundwater from EW-1. A total of 4,800 gallons of extracted groundwater has been treated and discharged in two batches, resulting in the removal of approximately 0.019 pounds of TPHg, 0.00047 pounds of benzene, and 0.21 pounds of MTBE.
- Based on initial measured flow rates from extraction wells EW-1 (5.0 gpm) and EW-3 (0.5 gpm), interim GWE was performed at EW-1. However, due to lower contaminant concentrations in EW-1 when compared to EW-3, continuing to use EW-1 to perform GWE does not appear to be the most effective strategy to remove contaminant mass from the source area.

Recommendations

Based on the conclusions presented above, Allterra recommends the following:

• Initiate extraction of impacted groundwater from well EW-3 instead of EW-1 to increase the efficiency of contaminant mass removal.



Interim Remedial Action Status Report 160 Holmes Street, Livermore, California Page 4

- Continue operation of GWE equipment for the duration of November 2010. Based on an evaluation of GWE operational data and sampling results, determine if the rate of recovery justifies continuing interim extraction activities.
- If groundwater elevations within the area of concern drop significantly, initiate interim SVE from EW-3 and discontinue GWE activities.

Limitations

Allterra prepared this report for the use of Manwel and Samira Shuwayhat, Alameda County Environmental Health Services, and RWQCB in evaluating groundwater quality at selected on-site locations at the time of this study. Statements, conclusions, and recommendations in this report are based solely on the field observations and analytical results related to work performed by Allterra and there is no warranty, expressed or implied. Site conditions and data can change over time; therefore, data presented in this report is only applicable to the timeframe of this study. Allterra's services have been performed in accordance with environmental principles generally accepted at this time and location.

Should you have any questions, please contact Allterra at (831) 425-2608.

Sincerely, Allterra Environmental, Inc.

La

James Allen, R.E.A.II Project Manager

<u>List of Figures</u> Figure 1, Site Vicinity Map Figure 2, Interim Groundwater Extraction System



Joe Mangine, P.G. 8423 Senior Geologist

<u>List of Tables</u> Table 1, Groundwater Elevation Data – Area of Concern Table 2, Interim Groundwater Extraction Sample Results Table 3, Interim Groundwater Extraction Operational Data Table 4, Dissolved Phase Contaminant Mass Removal Data

<u>List of Appendices</u> Appendix A, Certified Analytical Reports and Chains of Custody

cc: Mr. Jerry Wickham, Alameda County Environmental Health Services



FIGURES 1-2





TABLES 1-4

Table 1 Groundwater Elevation Data - Area of Concern

160 Holmes Street, Livermore, California

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
MW 1A*	4/6/06	465.03	15 30	15.60	449.43
IVI VV-IA	7/27/06	403.03	15-50	13.00	449.43
	10/12/06	465.03		22.42	442.01
	1/3/07	465.03		23.40	441.37
	4/13/07	465.03		23.24	441 79
	7/16/07	465.03		Dry	NC
	10/29/07	465.03		Dry	NC
	2/1/08	465.03		Dry	NC
	4/18/08	465.03		27.34	437.69
	7/28/08	465.03		Dry	NC
	11/18/08	465.03		Dry	NC
	2/4/09	465.03		Dry	NC
	4/21/09	465.03		Dry	NC
	9/24/09	465.03		35.00	430.03
	3/4/10	465.03		28.05	436.98
	7/19/10	465.03		23.85	441.18
	10/7/10	465.03		25.50	439.53
	10/12/10	465.03		25.60	439.43
	11/4/10	465.03		25.67	439.36
	1/6/06	464.04	15 20	15 47	440.47
WIW-2A	4/0/00	404.94	15-50	13.47	449.47
	10/12/06	464.94		22.27	442.07
	10/12/06	464.94		23.35	441.59
	1/3/07	464.94		20.90	444.04
	4/15/07	404.94		23.10 Dm/	441.70 NC
	10/29/07	464.94		Dry	NC
	2/1/08	404.94		Dry	NC
	4/18/08	464 94		27.26	437.68
	7/28/08	464 94		Dry	NC
	11/18/08	464 94		Dry	NC
	2/4/09	464.94		Dry	NC
	4/21/09	464.94		Dry	NC
	9/24/09	464.94		Dry	NC
	3/4/10	464.94		25.12	439.82
	7/20/10	464.94		25.90	439.04
MW-3A	4/6/06	465.84	15-30	16.02	449.82
	7/27/06	465.84		22.90	442.94
	10/12/06	465.84		23.99	441.85
	1/3/07	465.84		21.52	444.32
	4/13/07	465.84		23.78	442.06
	10/20/07	465.84		Dry	NC
	10/29/07	465.84		Dry	NC
	2/1/08	465.84		Dry 27.86	NC 427.08
	4/18/08	403.84		27.80 Dm/	437.98 NC
	11/18/08	403.84 165.81		Dry	NC
	2/4/00	465.84		Dry	NC
	2/4/09 4/21/00	403.04		Dry	NC
	9/2//00	465.84		Dry	NC
	3/4/10	465.84		27.95	437.89
	7/19/10	465 84		26.55	439.29
	10/12/10	465.84		26.05	439.79



Table 1 Groundwater Elevation Data - Area of Concern

160 Holmes Street, Livermore, California

Monitoring Wall ID	Date	Top of Casing Elevation*	Screen Interval	Depth to Groundwater	Groundwater Elevation
well ID		(feet, msl)	(leet, bgs)	(feet)	(feet, msl)
EW-1**	4/6/06	465.45	15-40	15.99	449.46
	7/27/06	465.45		23.85	441.60
	10/12/06	465.45		23.51	441.94
	1/3/07	465.45		21.45	444.00
	4/13/07	465.45		23.69	441.76
	10/29/07	465.45		NM	NC
	2/1/08	465.45		NM	NC
	4/18/08	465.45		27.83	437.62
	7/28/08	465.45		NM	NC
	11/18/08	465.45		Dry	NC
	2/4/09	465.45		Dry	NC
	4/21/09	465.45		Dry	NC
	9/24/09	465.45		Dry	NC
	3/4/10	465.45		27.87	NC
	7/20/10	465.45		24.35	441.10
	10/12/10	465.45		26.05	439.40
	11/4/10	465.45		26.14	439.31
EW-2**	4/6/06	465.99	15-40	16.20	449.79
	7/27/06	465.99		23.10	442.89
	10/12/06	465.99		21.48	444.51
	1/3/07	465.99		21.66	444.33
	4/13/07	465.99		23.93	442.06
	10/29/07	465.99		Dry	NC
	2/1/08	465.99		NM	NC
	4/18/08	465.99		28.04	437.95
	7/28/08	465.99		NM	NC
	11/18/08	465.99		Dry	NC
	2/4/09	465.99		Dry	NC
	4/21/09	465.99		Dry	NC
	9/24/09	465.99		Dry	NC
	3/4/10	465.99		25.89	NC
	7/20/10	465.99		24.45	441.54
	10/7/10	465.99		26.11	439.88
	10/12/10	465.99		26.25	439.74
	11/4/10	465.99		26.35	439.64
EW/ 2 (a)	11/10/00	NC	25.20	D	NC
EW-3	2/4/00	NC	25-30	Dry 22.80	NC
	2/4/09	NC		55.8U	INC.
	4/21/09	NC		Dry	NC
	3/24/09	NC		28.02	NC
	5/4/10 7/20/10	NC		20.02 NM	NC
	10/7/10	NC		26.60	NC
	10/ // 10	NC		20.00	NC
	10/12/10	NC		20.02	NC
	11/4/10	NU		20.13	NU

Notes:

MSL: mean sea level

bgs: below ground surface

NA: well not accessible

NC: elevation not calculated

NM: well not measured

* = Well MW-1 renamed MW-1A

** = Well installed on 2/22/06-2/28/06

(a) = Well EW-3 is 35 feet deep with a screen interval from 25 to 30 feet bgs.



Table 2Interim Groundwater Extraction Sample Results160 Holmes Street, Livermore, California

Sample ID	Sample Date	Total Petroleum Hydrocabons as (ug/L) Gasoline	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
Extraction V	Vell EW-1						
GW-IN	10/28/10	180	3.7	1.0	< 0.5	2.8	3,400
	11/4/10	790	20	3.0	39	76	6,900
Prior to Dis	charge (Tan	k-2)					
Batch-1	10/28/10	<50	< 0.5	< 0.5	<0.5	< 0.5	<5.0
Batch-2	11/4/10	<50	<0.5	< 0.5	< 0.5	<0.5	<5.0

Notes:

All results in micrograms per liter (ug/L)

-- = not analyzed

MTBE = Methyl tertiary butyl ether

GW-IN = Sample collected from influent groundwater stream

Tank-2 = Sample collected from treated groundwater prior to discharge to sanitary sewer

Samples analyzed for TPHg by EPA Method 8015CM, BTEX/MTBE by EPA Method 8021B.



Table 3 Interim Groundwater Extraction Operational Data

160 Holmes Street, Livermore, California

			GWE System			
Date	Average Flow Rate (gpm)	Total Flow Volume (gallons)	Cummulative Flow Volume (gallons)	Extraction Wells In Use	Date Added to System	Notes
10/12/10 to 11/4/10	5.0	7,200	7,200	EW-1	10/12/10	Groundwater extracted from EW-1 on October 12, October 26 to 28, and November 3 to 4, 2010.

Notes:

GWE = groundwater extraction

gpm = gallons per minute

Total Flow Volume = gallons of impacted groundwater removed from subsurface



Table 4 Dissolved Phase Contaminant Mass Removal Data

160 Holmes Street, Livermore, California

Data Datah	Influe	ent Concentr	ation	Callana Draga	and (EW 1)		М	ass Remo	ved (pounds)	
Date Batch		(per batch)		Gallons Ploce	ssed (Ew-1)	Quar	ter/ Month T	otal	Cu	mulative Tot	al
Sampled	TPHg	Benzene	MTBE	Per Batch	Total	TPHg	Benzene	MTBE	TPHg	Benzene	MTBE
10/28/10	180	3.7	3,400	2,400	1 800	0.0036	0.000074	0.068	0.010	0.00047	0.21
11/4/10	790	20	6,900	2,400	4,800	0.016	0.00040	0.14	0.019	0.00047	0.21

Notes:

All concnetrations listed in micrograms per liter (μ g/L) All masses listed in pounds (lb) APPENDIX A Certified Analytical Reports and Chains of Custody

McCampbell An "When Ouality	nalytical, Inc.	1534 Willow Pass F Web: www.mccampbell.c Telephone: 877-2	Road, Pittsburg, CA 945 com E-mail: main@mc 52-9262 Fax: 925-252	565-1701 ccampbell.com 2-9269
Allterra Environmental, Inc	Client Project ID: #160; 160) Holmes Street	Date Sampled:	10/28/10
849 Almar Ave. Ste. C #281			Date Received:	10/28/10
	Client Contact: Erik Allen		Date Reported:	11/02/10
Santa Cruz, CA 95060	Client P.O.:		Date Completed:	11/01/10

WorkOrder: 1010786

November 02, 2010

Dear Erik:

Enclosed within are:

- 1) The results of the 1 analyzed sample from your project: #160; 160 Holmes Street,
- 2) A QC report for the above sample,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius Laboratory Manager McCampbell Analytical, Inc.

	10000	-	147	4/12	-												(Cha	in o	of C	ust	ody	Rc	cor	d		
		849 A	mar Avenu	e, Suite C,	#281	1									Tu	rn Aro	und Ti	me (ci	rcle or	e) F	RUSH	24H	R 4	8HR	724R	5 1)ay
		Sant	a Cruz, Cal	ifornia 950	060									21)													
	Dha	Webe	site: www.a	llterraenv.	com	125.2	(00							/80				-				~	6.5	କ୍			
anort and Dill to:	Alltone Envir	10: (851) 4	25-2608 Pa	csimile: (8	51)4	23-2	009				-			015				260			-14	020	20)	83			
Project Number	160	onmental,	unc.							12				A 8	<i>e</i>			A 8			olic	0/6	0,00	625	÷.	(8)	
Project Location:	160 Holmes S	treet Live	more Ca								- 1			EP			-	E	-	(09	cds	601	010	20		200	
Project Name	Livermore Ga	s & Mini)	Mart											3E			60	lo	50	82	olve	V.	A 6	82	say	6.0	
Sampler Signature	Livenilore Ga	2 A H	- All	-										Ē	0	6	8	han	8	PA	liss	E	H	PA	oas	50	- 20
mapper organities.	Sample Co	lection	Sample (ontainers	T	N	Aatri	x		Р	reser	vatio	30	N	802	301	Vda	Vict	gers	E	ald	als	uls (E	Big	010	
Field Daint Mana			3 6	h										E	PA	V	12 ()	pq	ven	8	Tot	Mc	deta	NA	city	A 6	
/ Sample ID	Date	Time	Number	Containe Type	Air	Water	Soil	Sludge	Other	Ice	HCI	(ONH	Other	TPHg/B]	BTEX (E	TPHd (EF	S-fuel oxy	Ethanol a	Lead Scar	Fotal HV	Hardness	CAM-17	LUFT 5 N	PAH's/ P	Fish Toxi	Lead (EP.	
GW-IN	10/28/10	12:00	2	VOAs		X								X	X	1		-	-	-	-	~	-	-	-	-	
		· · · · · · · · · · · · · · · · · · ·	the standards for the																					1			
												1.1													-		
											-	-			-												
					-					_																	
					-	-																					
					-	-				_											1	· ···	12 22				
-										-											-						
				+		L																					
												1															
					-	1						-											1 10 1000000				
					-																						
and the label of the					-					_																	
а -						-		11						2 Y.													
50																										· · · · ·	
													1	1													
					-																						
						-							1								1.00000		1000				
					1			-												1							-
Sampled By: ER	IK AUE	4	Date:	Time:	Rec	eived	By:							Com	ments		110	<u>ن</u> .۱	+								
Received By:			Date:	Time:	Rec	eived	By:									GO	ODC	ONDIT	ABSE	NT	AP	CON	TAINE	RS_			

* CHANGED TO & 72HR RUSH DER J. M WOVIO

2010 4:26PM Allterra

Oct

82

8314252609

2.0



Page 1 of 1

(925) 252-9262					Work()rder:	10107	786	(ClientC	Code: ATI	RS				
	WaterTrax	WriteOr	n 🗹 EDF		Excel	[Fax	•	🖊 Email		HardCo	ру	Thirc	Party	J-	flag
Report to:					I	Bill to:						Requ	uested [·]	TAT:	3 0	days
Erik Allen	Email: e	erik@allterrae	env.com, micah@a	llterra	env.	Aco	counts	Payable	•							
Allterra Environmental, Inc	CC:					Allt	erra Er	vironm	ental	04		Dati	e Recei	ved	10/28/	2010
849 Almar Ave, Ste. C #281	PO:					849	Almar	Ave, S	te. C #2	281		Duit	- MUUUI	, rcu.	10/20/	2010
Santa Cruz, CA 95060	ProjectNo: #	160; 160 Ho	lmes Street			Sai	nta Cru	z, CA 9	5060			Date	e Print	ed:	11/01/	2010
831-425-2608 FAX 831-425-2609						mic	ah@al	lterraer	iv.com							
				[Req	uested	Tests	(See lege	nd be	elow)			
Lab ID Client ID		Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12

Lab ID	Client ID	Matrix	Collection Date Hold	1	2	3	4	5	6	7	8	9	10	11	12
		n			1	r	1	1					r	1	
1010786-001	GW-IN	Water	10/28/2010 12:00	Α	Α										

Test Legend:

1	G-MBTEX_W
6	
11	

2	PREDF REPORT	
7		
12		

3	
8	

4	
9	

5	
10	

Prepared by: Ana Venegas

Comments: <u>72hr rush on 11/01/10</u>

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



"When Ouality Counts"

Sample Receipt Checklist

Client Name:	lient Name: Allterra Environmental, Inc							and T	ime Received:	10/28/2010	4:38:09 PM
Project Name:	#160; 160 Holmes	s Stree	t				Check	klist c	completed and r	eviewed by:	Ana Venegas
WorkOrder N°:	1010786	Matrix	<u>Water</u>				Carrie	er:	<u>Courier</u>		
			<u>Chain</u>	of Cu	stody (C	0C) I	nforma	ation	<u>I</u>		
Chain of custody	present?			Yes	✓	1	No 🗆				
Chain of custody	d received?	Yes	✓	1	No 🗆						
Chain of custody	agrees with sample l	abels?		Yes	✓	1	No 🗌				
Sample IDs noted	by Client on COC?			Yes	V	1	No 🗆				
Date and Time of	collection noted by Cli	ent on C	OC?	Yes	✓	1	No 🗆				
Sampler's name r	noted on COC?			Yes	✓	1	No 🗆				
			Sa	ample	Receipt	Infor	mation	<u>1</u>			
Custody seals int	tact on shipping conta	iner/cool	er?	Yes		1	No 🗆			NA 🔽	
Shipping containe	er/cooler in good cond	ition?		Yes	V	1	No 🗆				
Samples in prope	er containers/bottles?			Yes	✓	1	No 🗆				
Sample containe	rs intact?			Yes	\checkmark	1	No 🗆				
Sufficient sample	e volume for indicated	test?		Yes		1	No 🗌				
		<u>Sa</u>	mple Preser	vatior	n and Ho	ld Tir	<u>ne (HT</u>	<u>) Info</u>	ormation		
All samples recei	ived within holding time	e?		Yes	✓	1	No 🗌				
Container/Temp E	Blank temperature			Coole	r Temp:	5.4°(C			NA 🗆	
Water - VOA vial	ls have zero headspa	ce / no b	ubbles?	Yes	✓	1	No 🗆	No	VOA vials subm	itted	
Sample labels ch	necked for correct pres	servation	ו?	Yes		1	No 🔽				
Metal - pH accept	table upon receipt (pH	<2)?		Yes		1	No 🗆			NA 🗹	
Samples Receive	ed on Ice?			Yes	✓	1	No 🗆				
			(Ice Type	e: WE	TICE))					
* NOTE: If the "N	NOTE: If the "No" box is checked, see comments below.										

Client contacted:

Date contacted:

Contacted by:

Comments:

	McCampbo	ell An en Ouality (<u>alyti</u> _{Counts"}	cal, Ir	<u>nc.</u>	Web	1534 Willow F : www.mccamp Telephone: 8	Pass Road, Pittsburg bell.com E-mail: 377-252-9262 Fa	g, CA 94565-17 main@mccamp x: 925-252-926	701 bell.com 9						
Allter	ra Environmental, Inc			Client P	roject ID: 4	#160; 160 Ho	olmes	Date Sample	ed: 10/28	8/10						
849 A	lmar Ave. Ste. C #281			Street				Date Receive	ed: 10/28	8/10						
	·····			Client C	Contact: Eri	ik Allen Date Extracted: 10/30/10-11/01/10										
Santa	Cruz, CA 95060			Client P	.0.:	Date Analyzed: 10/30/10-11/01/10										
Extracti	G	asoline F	Range (C6-C12)	Volatile Hy	drocarbons	as Gasoline	e with BTEX a	and MTBE*	k Wor	k Order	1010786				
Lab ID	Client ID	Matrix	TP	'H(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments				
001A	GW-IN	w	1	80	3400	3.7	1.0	ND	2.8	1	102	d1				
Repo	rting Limit for DF =1;	W		50	5.0	0.5	0.5	0.5	0.5		μg/I					
ND m abov	eans not detected at or ve the reporting limit	S	-	1.0	0.05	0.005	0.005	0.005	0.005		mg/K	g				
* water	and vapor samples are re	eported in	ug/L, sc	oil/sludge/s	olid samples i	n mg/kg, wip	e samples in	µg/wipe, product	t/oil/non-aque	ous liqui	d samples	and all				

TCLP & SPLP extracts in mg/L.

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant



McCampbell Analytical, Inc. "When Ouality Counts"

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water			QC Matri	x: Water			Batch	ID: 54079		WorkC	Order 10107	86			
EPA Method SW8021B/8015Bm	Extrac	tion SW	5030B					5	Spiked Sample ID: 1010771-005A						
Analyte	Sample	Sample Spiked MS			MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)						
, indigite	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD			
TPH(btex ^f)	ND	60	92.6	94.4	2.00	91.1	99.2	8.48	70 - 130	20	70 - 130	20			
MTBE	ND	10	121	124	2.94	121	117	3.90	70 - 130	20	70 - 130	20			
Benzene	ND	10	111	109	2.16	101	113	10.9	70 - 130	20	70 - 130	20			
Toluene	ND	10	101	97.6	3.04	91.4	104	12.5	70 - 130	20	70 - 130	20			
Ethylbenzene	ND	10	99.8	97.6	2.16	91.7	100	8.89	70 - 130	20	70 - 130	20			
Xylenes	ND	30	113	110	2.12	104	114	8.76	70 - 130	20	70 - 130	20			
%SS:	102	10	103	102	1.55	97	106	8.66	70 - 130	20	70 - 130	20			
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE															

BATCH 54079 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1010786-001A	10/28/10 12:00 PM	10/30/10	10/30/10 12:32 AM	1010786-001A	10/28/10 12:00 PM	11/01/10	11/01/10 11:44 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



McCampbell An "When Ouality	nalytical, Inc.	1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269						
Allterra Environmental, Inc	Client Project ID: #160; 160) Holmes Street	Date Sampled:	10/28/10				
849 Almar Ave. Ste. C #281			Date Received:	10/28/10				
	Client Contact: Erik Allen	Date Reported:	11/01/10					
Santa Cruz, CA 95060		Date Completed:	11/01/10					

WorkOrder: 1010787

November 02, 2010

Dear Erik:

Enclosed within are:

- 1) The results of the 1 analyzed sample from your project: #160; 160 Holmes Street,
- 2) A QC report for the above sample,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius Laboratory Manager McCampbell Analytical, Inc.

1010787

1101		-4	117	1114	1												(ha	in o	ofC	ust	ody	Re	cor	d,			
	1	849 AI	Imar Avenu	ie, Suite C,	#281										Tu	Im Are	und Ti	me (ci	rcle on	e) F	RUSH	24H	R 4	8HR	72HR	51	Day	_
Report and Bill to:	Pho Allterra Envir	Webs nc: (831) 4	a Cruz, Ca site: www.i 25-2608 Fi	allterraenv. acsimile: (8	com 31) 4	25-2	609		-					3015/8021)				\$260)			ds.	(020)	120)	(8310)	V			
Project Number:	160	onnoniun, i		1	-									A				A S			soli	9/0	0/6(625		0.8)		
Project Location:	Project Location: 160 Holmes Street, Livermore, Ca								(EP			-	E	6	(09)	ed	60)	105	10		/20							
Project Name: Livermore Gas & Mini Mart						BE			260	lou	\$260	83	vlos	PA	Y	20 V	SSal	0.9										
Sampler Signature:	SNA	~A	1-	,										Ę	20)	15)	A 8	tha	Ls (S	Eb	dist	S (E	e	Eb	ioa.	0/20		
	Sample Co	lection	Sample (Containers		N	Matri	ix		P	reser	vatio	n	X	80	80	E	W	Bet	is (otal	ctal	tals	12	y/B	201		
Field Point Name / Sample ID	Date	Time	Number of Containers	Container Type	Air	Water	Soil	Sludge	Other	Ice	HCI	NONH	Other	TPHg/ BTE	BTEX (EPA	TPHd (EPA	S-fuel oxys	Ethanol and	Lead Scaver	Total HVOC	Hardness/To	CAM-17 M	LUFT 5 Me	PAH's/ PNA	Fish Toxicit	Lead (EPA (
Tank-2	10/28/10	12:00	3	VOAs		X								Х	X							-		-				-
																												Γ
																												1
																												Г
																												r
														enit.m.														t
																	-											1
																	1	-			1							t
																	-											-
					-	1							- 1											1	1			1
						-		1							10.000							1.7.7		******				
	and the prostantian of the													-										±0.07			-1-1-444	ŀ
											-					-			-									ŀ
					-															i mlaram	-			. +-++ ++			1.100.000	ŀ
						-			-								-									-		÷
					-	-	-						-					(-2)							-			ŀ
							-		-	-				0.000							-							-
						-			-		-		-			-												ŀ
																									-			
					-						-	-																-
Sampled By: ERI	KAUE	μ.	Date:	Time:	Rec	eived	By:					1		Com	ment	s:	E/to	5.7					i					
Received By:			Date:	Time:	Rec	cived	By:									GO	AD S	ONDI	ABSE	NT_	AP	PROF	PRIAT	E RS				
Received By:			Date:	Time:	Rec	ive	By:	1	N		N	1				DE	GHLC	MINA	I ED H	NLAB		PRE	SERV	ED IN	LAB_			
			10/28/	1630	(5	~	Y	0	0					PR	ESER	VATIO	DN	and I	aG	METAL	5 01	HER				

* CHAMBED TO 2 72HP ROSH DER J.M IVOVID

1

28 2010 4:26PM Allterra

Oct

8314252609

P.3

Tank-2

Water

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Pittsburg, CA 94565-1701 (925) 252-9262				Work	Order: 101078	7 Clien	tCode: ATRS			
	WaterTrax	WriteOn	EDF	Excel	Fax	🖌 Email	HardCopy	ThirdParty	J-fla	ag
Report to:					Bill to:		Re	quested TAT:	3 da	ays
Erik Allen Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060 831-425-2608 FAX 831-425-2609	Email: e cc: PO: ProjectNo: #	rik@allterraen [,] 160; 160 Holm	v.com, micah@a nes Street	llterraenv.	Accounts Pa Allterra Env 849 Almar A Santa Cruz, micah@allte	ayable ironmental .ve, Ste. C #281 CA 95060 erraenv.com	Da Da	te Received: te Printed:	10/28/20 11/01/20	010 010
						Requested Tes	ts (See legend	below)		
Lab ID Client ID		Matrix	Collection Date	Hold 1	2 3	4 5 6	7 8	9 10	11	12

А

Test Legend:

1010787-001

1	G-MBTEX_W		2	
6			7	
11]	12	

	3	
	8	
_		

10/28/2010 12:00

Γ	4	
[9	

5		
10		

Prepared by: Ana Venegas

Comments: <u>72hr rush on 11/1/10</u>

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



"When Ouality Counts"

Sample Receipt Checklist

Client Name:	Allterra Environm	nental,	Inc				Date a	and T	ime Received:	10/28/2010	5:00:51 PM
Project Name:	#160; 160 Holmes	Stree	t				Check	dist c	completed and re	eviewed by:	Ana Venegas
WorkOrder N°:	1010787	Matrix	<u>Water</u>				Carrie	er:	<u>Courier</u>		
			<u>Chain</u>	of Cu	stody (C	(30	Informa	ation			
Chain of custody	present?			Yes	✓		No 🗆				
Chain of custody	signed when relinquis	shed and	d received?	Yes	✓		No 🗆				
Chain of custody	agrees with sample la	abels?		Yes	✓		No 🗌				
Sample IDs noted	by Client on COC?			Yes	✓		No 🗆				
Date and Time of	collection noted by Clie	ent on C	OC?	Yes	✓		No 🗆				
Sampler's name r	noted on COC?			Yes	✓		No 🗆				
			Sa	ample	Receipt	Info	mation	<u>1</u>			
Custody seals int	tact on shipping contai	ner/cool	er?	Yes			No 🗆			NA 🔽	
Shipping containe	er/cooler in good condi	ition?		Yes	✓		No 🗆				
Samples in prope	er containers/bottles?			Yes	✓		No 🗆				
Sample containe	rs intact?			Yes	\checkmark		No 🗆				
Sufficient sample	e volume for indicated t	test?		Yes	✓		No 🗌				
		<u>Sa</u>	mple Preser	vatior	n and Ho	ld Ti	<u>me (HT)</u>) Info	ormation		
All samples recei	ved within holding time	e?		Yes	✓		No 🗌				
Container/Temp E	Blank temperature			Coole	r Temp:	5.2°	С			NA 🗆	
Water - VOA vial	ls have zero headspac	ce / no b	ubbles?	Yes	✓		No 🗆	No	VOA vials subm	itted	
Sample labels ch	necked for correct pres	servation	ו?	Yes	✓		No 🗌				
Metal - pH accept	table upon receipt (pH	<2)?		Yes			No 🗆			NA 🗹	
Samples Receive	ed on Ice?			Yes	✓		No 🗆				
			(Ice Type	e: WE	TICE)					
* NOTE: If the "N	lo" box is checked, se	e comm	ents below.								

Client contacted:

Date contacted:

Contacted by:

Comments:

	McCampbo	ell Ar en Oualitv	nalyti _{Counts"}	ical, Ir	<u>nc.</u>	Web	1534 Willow P : www.mccampl Telephone: 8	ass Road, Pittsbur bell.com E-mail 77-252-9262 Fa	g, CA 94565-1' : main@mccamp x: 925-252-926	701 bell.com 9					
Allter	ra Environmental, Inc			Client P	Project ID: #	#160; 160 Ho	olmes	Date Sample	ed: 10/28	8/10					
849 A	lmar Ave, Ste. C #281			Street				Date Receiv	ed: 10/28	3/10					
	,			Client C	Contact: Eri	ik Allen		Date Extract	ed: 10/30)/10					
Santa	Cruz, CA 95060			Client P	2.0.:			Date Analyz	zed: 10/30)/10					
Extracti	Gaon method: SW5030B	asoline l	Range ((C6-C12)	Volatile Hy Analy	drocarbons	as Gasoline sw8021B/8015	e with BTEX a ^{5Bm}	and MTBE [*]	k Wor	k Order:	010787			
Lab ID	Client ID	Matrix	TF	PH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments			
001A	Tank-2	W	:	ND	ND	ND	ND	ND	ND	1	98				
Repo	rting Limit for DF =1;	W		50	5.0	0.5	0.5	0.5	0.5		μg/L				
ND m abo	eans not detected at or ve the reporting limit	S		1.0	0.05	0.005	0.005	0.005	0.005		mg/K	g			

* water and vapor samples are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in μ g/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

%SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:



McCampbell Analytical, Inc. "When Ouality Counts"

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water	er QC Matrix: Water BatchID: 54092 WorkOrder 1010787										87					
EPA Method SW8021B/8015Bm	Extrac	tion SW	5030B			Spiked Sample ID: 1010787-001A										
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce							
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	MS / MSD RPD LCS/LCSD						
TPH(btex) [£]	ND	60	92.8	92.3	0.524	91.7	91.4	0.308	70 - 130	20	70 - 130	20				
MTBE	ND	10	123	119	3.03	115	117	1.39	70 - 130	20	70 - 130	20				
Benzene	ND	10	113	116	3.04	108	110	1.98	70 - 130	20	70 - 130	20				
Toluene	ND	10	97.9	103	4.79	98.4	96.1	2.38	70 - 130	20	70 - 130	20				
Ethylbenzene	ND	10	99.3	103	3.65	98.2	96.7	1.51	70 - 130	20	70 - 130	20				
Xylenes	ND	30	111	116	4.40	111	109	2.23	70 - 130	20	70 - 130	20				
%SS:	98	10	102	105	3.20	100	101	0.382	70 - 130	20	70 - 130	20				
All target compounds in the Method B NONE	All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE															

			BATCH 54092 SL	JMMARY			
Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1010787-001A	10/28/10 12:00 PM	1 10/30/10	10/30/10 2:09 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



McCampbell An "When Quality	nalytical, Inc.	1534 Willow Pass F Web: www.mccampbell.c Telephone: 877-2	coad, Pittsburg, CA 945 om E-mail: main@mc 52-9262 Fax: 925-252	665-1701 ccampbell.com 2-9269
Allterra Environmental, Inc	Client Project ID: #160; 160) Holmes, Livermore	Date Sampled:	11/04/10
849 Almar Ave. Ste. C #281			Date Received:	11/04/10
	Client Contact: James Alle	en	Date Reported:	11/05/10
Santa Cruz, CA 95060	Client P.O.:		Date Completed:	11/05/10

WorkOrder: 1011159

November 05, 2010

Dear James:

Enclosed within are:

- 1) The results of the 1 analyzed sample from your project: #160; 160 Holmes, Livermore,
- 2) A QC report for the above sample,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius Laboratory Manager McCampbell Analytical, Inc.





1011159

		A	LLT	HAR	3												(Cha	in c	of C	ust	ody	Re	cor	d	16	2	-
		849 A	Imar Aven	ue, Suite C,	#281	1									Tu	im Ar	ound T	ime (c	ircle or	ne) I	RUSH	24H	R 4	SHR	72HI	150	ay	
	Pho	Sar Wel one: (831)	nta Cruz, Ca bsite: www. 425-2608 F	alifornia 95 allterraenv. acsimile: (8	060 com 331) 4	125-2	2609							15/8021)				(09				20)	(0)	8310)				
Report and Bill to:	Allterra Envir	ronmental,	Inc.											80				A 82			spilo	09/0	(602	25/		8		
Project Number:			~											EPA				EP/		6	d sc	501(010	20,6		50		
Project Location:	160 Holmes,	Livermore	e, CA											E			(09	ol (560)	826	olve	A.C	A 6	82.	say	/6.0		
Project Name:	100	12		100	-	-								11B	6	6	82	han	(8)	PA	lisse	(EF	Eb	PA	oas	20		
Sampler Signature.	Sample	ollection	Sample	Containers	T		Matr	ix		F	reser	rvatio	on	S	802	801:	P/V	Met	Bers	s (E	tal d	tals	als (s (E	/Bi	010		
Field Point Name / Sample ID	Date	Time	Number of Containers	Container Type	Air	Water	Soil	Sludge	Other	lce	HCI	(ONH	Other	TPHg/ BTEX	BTEX (EPA	TPHd (EPA	5-fuel oxys (Ethanol and	Lead Scaven	Total HVOC	Hardness/To	CAM-17 Me	LUFT 5 Met	PAH's/ PNA'	Fish Toxicity	Lead (EPA 6		EDF required
V Tank-2	11/4/2010		3	Voas		X				X	X			X														X
																									•			
							-													_								
1										1																		
																												_
																												_
Sampled By:	hens		Date:	Time: 1740	Rec	Dh	d By:	~	_	_				Com	ment	<u>s</u> :												
Dente Co	ut-		Date: 14/4/10	Time: 1900	Rec	xive Sh	d By	tà	l	-	1/1	4/1	0														1	
Received By:			Date:	Time:	ds.ec	erve	a By:							2														
				•											IC GC HE DE	E / t° DOD C EAD S ECHLO	S.C.	TION ABSE	NT LAB	APP	ROPR CONT/ PRES		S IN L	ĀB				

PRESERVATION



Page 1 of 1

(925) 252-9262				WorkO	Order: 101115	9 Clien	tCode: ATRS		
	WaterTrax	WriteOn	EDF	Excel	Fax	🖌 Email	HardCopy	ThirdParty	J-flag
Report to:				В	ill to:		Rec	quested TAT:	3 days
James Allen Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060 831-425-2608 FAX 831-425-2609	Email: a cc: PO: ProjectNo: #	allterraenviror #160; 160 Hol	nmental@yahoo.cc mes, Livermore	om, micah	Accounts Pa Allterra Envir 849 Almar A Santa Cruz, 6	yable onmental ve, Ste. C #281 CA 95060	Da Da	te Received: te Printed:	11/04/2010 11/05/2010
						Requested Test	s (See legend b	pelow)	

Lab ID	Client ID	Matrix	Collection Date	Hold	1	2	3	4	5	6	1	8	9	10	11	12
1011159-001	Tank-2	Water	11/4/2010		А	Α										

Test Legend:

1	G-MBTEX_W
6	
11	

2	PREDF REPORT	
7		
12		

3	
8	

4	
9	

5	
10	

Prepared by: Shino Hamilton

Comments: <u>changed to 72hr per email 11/05/10.</u>

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



"When Ouality Counts"

Sample Receipt Checklist

Client Name: Allterra Environmental, Inc			Date a	and Time Received:	11/4/2010 7:0	5:46 PM
Project Name: #160; 160 Holmes, Livermore			Check	dist completed and re	eviewed by: Shi	ino Hamilton
WorkOrder N°: 1011159 Matrix Water			Carrie	r: <u>Derik Cartan (N</u>	IAI Courier)	
<u>Chain</u>	of Cu	stody (CC	DC) Informa	ation		
Chain of custody present?	Yes	✓	No 🗆			
Chain of custody signed when relinquished and received?	Yes	✓	No 🗆			
Chain of custody agrees with sample labels?	Yes		No 🗌			
Sample IDs noted by Client on COC?	Yes	✓	No 🗆			
Date and Time of collection noted by Client on COC?	Yes		No 🗆			
Sampler's name noted on COC?	Yes		No 🗆			
<u>Sa</u>	ample	Receipt I	Information	1		
Custody seals intact on shipping container/cooler?	Yes		No 🗆		NA 🔽	
Shipping container/cooler in good condition?	Yes	✓	No 🗆			
Samples in proper containers/bottles?	Yes		No 🗆			
Sample containers intact?	Yes		No 🗆			
Sufficient sample volume for indicated test?	Yes	✓	No 🗌			
Sample Preser	vatior	and Hol	<u>d Time (HT)</u>) Information		
All samples received within holding time?	Yes		No 🗌			
Container/Temp Blank temperature	Coole	r Temp:	5.6°C		NA	
Water - VOA vials have zero headspace / no bubbles?	Yes		No 🗆	No VOA vials submi	tted	
Sample labels checked for correct preservation?	Yes		No 🗌			
Metal - pH acceptable upon receipt (pH<2)?	Yes		No 🗆		NA 🗹	
Samples Received on Ice?	Yes		No 🗆			
(Ісе Туре	e: WE	TICE)				
* NOTE: If the "No" box is checked, see comments below.						

Client contacted:

Date contacted:

Contacted by:

Comments:

	McCampbe	ell An en Oualitv	alyti	ical, Iı	<u>nc.</u>	Web	1534 Willow P : www.mccamp Telephone: 8	ass Road, Pittsburg bell.com E-mail: 777-252-9262 Fa	g, CA 94565-1' : main@mccamp x: 925-252-926	701 bell.com 9						
Allter	ra Environmental, Inc			Client P	Project ID: #	#160; 160 Ho	olmes,	Date Sample	ed: 11/04	4/10						
849 A	lmar Ave, Ste. C #281			Livermo	ore			Date Receiv	ed: 11/04	1/04/10						
	,			Client C	Contact: Jar	nes Allen		Date Extract	ed: 11/05	5/10						
Santa	Cruz, CA 95060			Client P	2.0.:			Date Analyz	zed: 11/05	5/10						
Extracti	Ga on method: SW5030B	asoline I	Range ((C6-C12)	Volatile Hy Analy	drocarbons	as Gasoline \$W8021B/8015	e with BTEX a ^{5Bm}	and MTBE [*]	* Worl	k Order:	1011159				
Lab ID	Client ID	Matrix	TP	PH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments				
001A	Tank-2	w]	ND	ND	ND	ND	ND	ND	1	102					
Repo	rting Limit for DF =1;	W		50	5.0	0.5	0.5	0.5	0.5		µg/I					
abo	ve the reporting limit	S		1.0	0.05	0.005	0.005	0.005	0.005		mg/k	Kg				

* water and vapor samples are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in μ g/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

%SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:



McCampbell Analytical, Inc. "When Ouality Counts"

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water		(QC Matri	x: Water			Batch	ID: 54197		Work	Drder 10111	59
EPA Method SW8021B/8015Bm	Extrac	ction SW	5030B					s	Spiked San	nple ID	: 1011098-0	01A
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	e Criteria (%)	
, indigite	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)	ND	60	93.1	95	2.08	95.5	93.9	1.66	70 - 130	20	70 - 130	20
MTBE	ND	10	121	119	1.81	113	125	10.2	70 - 130	20	70 - 130	20
Benzene	ND	10	110	107	3.34	104	112	6.95	70 - 130	20	70 - 130	20
Toluene	ND	10	99.7	95.3	4.59	94.9	102	7.02	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	101	96.6	4.38	95.4	101	5.42	70 - 130	20	70 - 130	20
Xylenes	ND	30	115	109	4.77	108	114	5.49	70 - 130	20	70 - 130	20
%SS:	96	10	99	97	2.53	99	100	0.633	70 - 130	20	70 - 130	20
All target compounds in the Method B NONE	lank of this	extraction	batch we	re ND les	s than the	method R	L with th	e following o	exceptions:			

			<u>BATCH 54197 SL</u>	JMMARY			
Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1011159-001A	11/04/10) 11/05/10	11/05/10 2:56 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.

McCampbell Ar	nalytical, Inc. Counts"	1534 Willow Pass F Web: www.mccampbell.c Telephone: 877-2	65-1701 ccampbell.com 2-9269	
Allterra Environmental, Inc	Client Project ID: #160; 160) Holmes, Livermore	Date Sampled:	11/04/10
849 Almar Ave Ste C #281			Date Received:	11/04/10
019 militar 1140, 540. C #201	Client Contact: James Alle	en	Date Reported:	11/09/10
Santa Cruz, CA 95060	Client P.O.:		Date Completed:	11/09/10

WorkOrder: 1011160

November 09, 2010

Dear James:

Enclosed within are:

- 1) The results of the 1 analyzed sample from your project: #160; 160 Holmes, Livermore,
- 2) A QC report for the above sample,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius Laboratory Manager McCampbell Analytical, Inc.



		/			1												(Cha	in (of C	ust	odv	Re	cor	d	1	-	_
		849 A	Imar Aveni	ie. Suite C	#281									-	Т	irn Arc	ound T	ime (ci	rcle of	ne) I	RUSH	24H	R 4	8HR (72HF	1/51	Jay)	
Report and Bill to: Project Number: Project Location: Project Name:	Pho Allterra Envi 160 Holmes, 160	San Web one: (831) 4 ronmental, Livermore	ta Cruz, Ca osite: www.: 425-2608 F: Inc. e, CA	difornia 950 allterraenv acsimile: (8	060 com (31) 4	25-20	609							TBE (EPA 8015/8021)	()		8260)	tanol (EPA 8260)	(8260)	PA 8260)	issolved solids	(EPA 6010/6020)	EPA 6010/6020)	PA 8270,625/8310)	vassay (200.9/200.8)		
Sampler Signature:	Sample C	ollection	Sample	Containers	T	N	Aatri	x	-	P	reser	vatio	n	MS	802	8015	EPA	Meth	gers	s (E)	tal d	tals	als (s (E	/Bic	010		-
Field Point Name / Sample ID	Date	Time	Number of Containers	Container Type	Air	Water	Soil	Sludge	Other	Ice	HCI	HNO:	Other	TPHg/ BTEX	BTEX (EPA	TPHd (EPA (5-fuel oxys (1	Ethanol and l	Lead Scaven	Total HVOC	Hardness/Tol	CAM-17 Me	LUFT 5 Met	PAH's' PNA'	Fish Toxicity	Lead (EPA 6		EDF required
GW-IN	,		3	Voas		X				X	X																	X
Sampled By: Daron C Received By: DUM Received By:	Weng Care	>	Date: 11-4-10 Date: 11/4/10 Date:	Time: 1740 Time: 7100 Time:	Rec J Kec	eived	I By:	He		l	(1	/4.)	10	Com	iment	<u>s</u> :											-	

GOOD CONDITION ______ APPROPRIATE HEAD SPACE ABSENT _____ CONTAINERS DECHLORINATED IN LAB _____ PRESERVED IN LAB_____ PRESERVATION _____ O & G | METALS | OTHER |_____



Page 1 of 1

(925) 252-9262					WorkO	order:	10111	160	C	lientC	ode: AT	RS				
	WaterTrax	WriteOn	EDF		Excel	Ľ	Fax	٦	🖊 Email		HardCo	ору	Thir	dParty	٦ı	-flag
Report to:					В	ill to:						Requ	uested	TAT:	3	days
James Allen Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060 831-425-2608 FAX 831-425-2609	Email: a cc: PO: ProjectNo: #	allterraenviroi ¢160; 160 Ho	nmental@yahoo.c Imes, Livermore	om, m	nicah	Acc Allte 849 Sar mic	counts F erra En Almar nta Cruz ah@all	Payable vironme Ave, St z, CA 98 Iterraen	ental te. C #2 5060 w.com	81		Date Date	e Rece e Print	ived: ted:	11/04 11/05	/2010 5/2010
				[Requ	uested	Tests ((See lege	end be	elow)			
Lab ID Client ID		Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12

	Lab ID	Client ID	Matrix	Collection Date	Hold	1	2	3	4	5	6	1	8	9	10	11	12
1011160-001 GW-IN Water 11/4/2010 A A A	1011160-001	GW-IN	Water	11/4/2010		А	А										

Test Legend:

1	G-MBTEX_W
6	
11	

2	PREDF REPORT	
7		
12		

3	
8	

4	
9	

5	
10	

Prepared by: Shino Hamilton

Comments: <u>changed to 72hr per email 11/05/10.</u>

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



"When Ouality Counts"

Sample Receipt Checklist

Client Name:	ame: Allterra Environmental, Inc							Date and Time Received: 11/4/2010 7:17:27 PM				
Project Name:	ect Name: #160; 160 Holmes, Livermore						Check	klist com	npleted and	reviewed by:	Shino Hamilton	
WorkOrder N°:	1011160	Matrix	Water				Carrie	er: <u>D</u>	erik Cartan (MAI Courier)		
			<u>Chain</u>	of Cus	stody (C	:0C) I	nforma	ation				
Chain of custody	present?			Yes	\checkmark	I	No 🗆					
Chain of custody	signed when relinquis	shed and	d received?	Yes	\checkmark	I	No 🗆					
Chain of custody	agrees with sample la	abels?		Yes	\checkmark	I	No 🗌					
Sample IDs noted	by Client on COC?			Yes	✓	I	No 🗆					
Date and Time of	collection noted by Cli	ent on C	OC?	Yes	✓	I	No 🗆					
Sampler's name n	noted on COC?			Yes		I	No 🗆					
			<u>Sa</u>	ample	Receipt	t Infor	mation	<u>1</u>				
Custody seals intact on shipping container/cooler?				Yes		I	No 🗆			NA 🔽		
Shipping container/cooler in good condition?				Yes	\checkmark	I	No 🗆					
Samples in proper containers/bottles?				Yes	✓	I	No 🗆					
Sample container	rs intact?			Yes	\checkmark	I	No 🗆					
Sufficient sample	volume for indicated	test?		Yes	✓	I	No 🗌					
		<u>Sa</u>	mple Preser	vation	and Ho	old Tir	ne (HT) Inforn	nation			
All samples recei	ved within holding time	e?		Yes	✓	I	No 🗌					
Container/Temp E	Blank temperature			Coole	r Temp:	5.6°	С			NA 🗆		
Water - VOA vial	s have zero headspac	ce / no b	ubbles?	Yes	✓	I	No 🗆	No VO	A vials subm	nitted 🗆		
Sample labels checked for correct preservation?				Yes	✓	I	No 🗌					
Metal - pH acceptable upon receipt (pH<2)?			Yes		I	No 🗆			NA 🗹			
Samples Receive	ed on Ice?			Yes	✓	I	No 🗆					
			(Ice Type	e: WET	T ICE)						
* NOTE: If the "N	lo" box is checked, se	e comm	ents below.									

Client contacted:

Date contacted:

Contacted by:

Comments:

McCampbell Analytical, Inc. "When Ouality Counts"						Web	1534 Willow P : www.mccamp Telephone: 8	ass Road, Pittsbur bell.com E-mail 377-252-9262 Fa	g, CA 94565-17 main@mccamp x: 925-252-926	701 bell.com 9		
Allterra Environmental, Inc Client Project ID: #						#160; 160 Holmes, Date Sampled: 11/04/10						
849 Almar Ave, Ste. C #281					Date Received: 11/04/10							
Client Contac						nes Allen		Date Extract	ed: 11/05	5/10-11/	08/10	
Santa	Cruz, CA 95060			Client P	2.0.:			Date Analyz	zed: 11/05	5/10-11/0	08/10	
Extracti	Gan method: SW5030B	asoline R	lange (C6-C12)	Volatile Hy	drocarbons	as Gasoline	e with BTEX :	and MTBE*	k Wor	Order	1011160
Lab ID	Client ID	Matrix	TP	H(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	GW-IN	w	7	'90	6900	20	3.0	39	76	1	113	d1
<u> </u>												
Repo ND m	rting Limit for DF =1; eans not detected at or	W		50	5.0	0.5	0.5	0.5	0.5	μg/L		
abo	ve the reporting limit	S		1.0	0.05	0.005	0.005	0.005	0.005	<u> </u>	mg/K	.g

ted in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in μ g/wipe, product/oil/non-aqueous liquid samples and all water and vapor samples are report TCLP & SPLP extracts in mg/L.

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant



"When Ouality Counts"

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water			QC Matrix: Water					BatchID: 54197			WorkOrder 1011160		
EPA Method SW8021B/8015Bm	SW8021B/8015Bm Extraction SW5030B Spiked Sample ID: 1011098-0							01A					
Analyte	Sample	ample Spiked MS MSD MS-MSD LCS					LCSD	LCS-LCSD	SD Acceptance Criteria (%)				
, include	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD	
TPH(btex)	ND	60	93.1	95	2.08	95.5	93.9	1.66	70 - 130	20	70 - 130	20	
MTBE	ND	10	121	119	1.81	113	125	10.2	70 - 130	20	70 - 130	20	
Benzene	ND	10	110	107	3.34	104	112	6.95	70 - 130	20	70 - 130	20	
Toluene	ND	10	99.7	95.3	4.59	94.9	102	7.02	70 - 130	20	70 - 130	20	
Ethylbenzene	ND	10	101	96.6	4.38	95.4	101	5.42	70 - 130	20	70 - 130	20	
Xylenes	ND	30	115	109	4.77	108	114	5.49	70 - 130	20	70 - 130	20	
%SS:	96	10	99	97	2.53	99	100	0.633	70 - 130	20	70 - 130	20	
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE													

BATCH 54197 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1011160-001A	11/04/10) 11/05/10	11/05/10 6:56 PM	1011160-001A	11/04/10	11/08/10	11/08/10 7:02 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.