

Serving the North Bay for Over 20 Years

April 1, 2015

Mark Detterman Program Manager Alameda County Environmental Health 1131 Harbor Bay Parkway Alameda, CA 94502

RECEIVED

By Alameda County Environmental Health at 2:14 pm, Apr 01, 2015

Re: Workplan: Monitoring Well Destruction, Waste Disposal and Closure Reporting

Salles's Paint & Auto Body

1049 9th Avenue Oakland, CA RO #0000308

I declare under penalty of perjury that to the best of my knowledge the information and/or recommendations contained in the attached is/are true and correct.

Sincerely,

Dick Cochran, C&C Property Management

Serving the North Bay for Over 20 Years

March 31, 2015 Job No.: 0459,001.03

Mr. Dick Cochran P.O. Box 20327 Oakland, California 94620

Workplan: Monitoring Well Destruction, Waste Disposal and Closure Reporting Salle's Paint & Body Shop 1049 9th Avenue Oakland, California

Dear Mr. Cochran:

Edd Clark & Associates, Inc. (EC&A) is pleased to present this workplan for the destruction of three groundwater monitoring wells, the disposal of investigation-generated waste materials, and case-closure reporting for 1049 9th Avenue (site) in Oakland, California (Figures 1 and 2). Corrective action has been conducted at the site at the request of the Alameda County Health Care Services (ACHCS). In a letter dated April 7, 2014, the ACHCS directed the submittal of a Focused Site Conceptual Model and a Data Gap Investigation Workplan in response to eight technical comments in their letter. The primary concerns expressed by the ACHCS were that free product may be present in the gasoline and/or waste-oil UST excavations because highly impacted soil may have been used to backfill the excavations. EC&A's June 27, 2014, Soil Disposal Documentation report addressed those concerns and recommended that the site be considered for closure. EC&A's July 21, 2014, Focused Site Conceptual Model and a Data Gap Investigation Work Plan recommended that a search be done for domestic water wells within 250 feet of the former UST locations, and if none were found, the site should be considered for closure.

In an email dated August 14, 2014, the ACHCS reported that a search of their records showed that there were no domestic wells in the vicinity of the site. In an email dated October 20, 2014, the ACHCS stated that because the public comment period had closed with no comments, the site wells could be decommissioned.

Monitoring Well Destruction Procedures

Prior to well-destruction activities, a well-destruction permit will be acquired from the ACHCS and encroachment permit from the City of Oakland (to be obtained following approval of this workplan). EC&A understands that the City of Oakland will not issue an encroachment permit until they are provided documentation from the ACHCS approving the well destruction workplan. A Traffic/Pedestrian Control Plan will be submitted to the City of Oakland along with the encroachment permit application. The well destruction permit application with the applicable fee is included in Appendix A. Underground utilities will be located and marked for Underground Service Alert (USA). The ACHCS and USA will be notified at least 48 hours prior to well destruction activities. Two-inch-diameter monitoring wells MW-1, MW-2 and MW-3 extend to depths of approximately 20 feet (ft) below ground surface (bgs). Copies of the well

March 31, 2015 Job No.: 0459,001.03

boring logs are in Appendix B. EC&A will subcontract Clear Heart Drilling, Inc., of Santa Rosa, California, to destroy the wells using a truck-mounted drill rig equipped with 8-inch-diameter, hollow-stem augers. The well boxes and well casings will be removed, and the well bores will be over-drilled to remove the cement/bentonite grout, bentonite seal and sand filter packs from the boreholes.

Drilling will continue to a depth of at least 1 ft to 2 ft below the total depth of the wells to remove all well materials. Following well destruction, the borings will be backfilled with cement grout by tremie grouting as designed by the licensed C-57 well driller and in accordance with the California Well Standards, Bulletin 74-90. The upper few feet of the borings will be filled with asphalt and/or concrete to match the surrounding grade.

Monitoring well MW-3 has been paved over and will be located by triangulating from MW-1 and MW-2. A copy of the well survey map is attached in Appendix C.

Waste Material Disposal

The concrete and well boxes will be hauled off to a Class III landfill for disposal. The well casings will either be hauled by Clear Heart Drilling, Inc., to Global Materials Recovery Services of Santa Rosa, California, for recycling, or transported to an appropriate landfill for disposal. Soil cuttings generated during the destruction of the wells will be temporarily stored onsite in properly labeled and sealed DOT 17H, 55-gallon drums pending laboratory analytical results. EC&A will collect one 4-point composite sample from the drummed soils for the analysis of total petroleum hydrocarbons multi scan (gasoline, diesel and motor oil), benzene, toluene, ethylbenzene and xylenes (BTEX), and methyl tert-butyl ether (MTBE) by Methods SW8015Bm/8021B, for the CAM 5 Metals by Method 200.8, and for Petroleum Oil & Grease. The disposal facility or ACHCS may require additional laboratory analysis. Pending laboratory analytical results, the waste soil will be disposed of at an appropriate disposal facility. Any decontamination water generated during the destruction of the wells will be temporarily stored onsite in properly labeled and sealed DOT 17H, 55-gallon drums. EC&A anticipates that the water will be disposed of by either InStrat, Inc., of Rio Vista, California, or EnviroPacific of Vacaville, California. Disposal documentation will be provided to the ACHCS.

Site Safety Plan

Field work will be performed in accordance with the Site Safety Plan (SSP) provided in Appendix D. The SSP identifies the chemicals that may be encountered during site activities, describes precautionary measures to be taken when in the presence of these chemicals, and contains a map to the nearest medical facility.

Summary Report Preparation

Following completion of the well destruction and disposal of waste materials, EC&A will prepare a summary report documenting the completed scope of work. The report will be submitted to the ACHCS for their review and electronically uploaded to GeoTracker.

Schedule

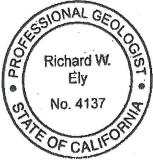
The wells will be abandoned upon receipt of ACHCS approval of this workplan, and receipt of the drilling and City of Oakland encroachment permits.

Thank you for allowing EC&A to provide environmental consulting services for you. Please call (707) 792-9500 if you have any questions.

Sincerely,

Richard Ely, PG#4137

Senior Geologist



Attachments

Figure 1 - Site Location Map

Figure 2 - Site Plan

Appendix A - Well Destruction Permit Application

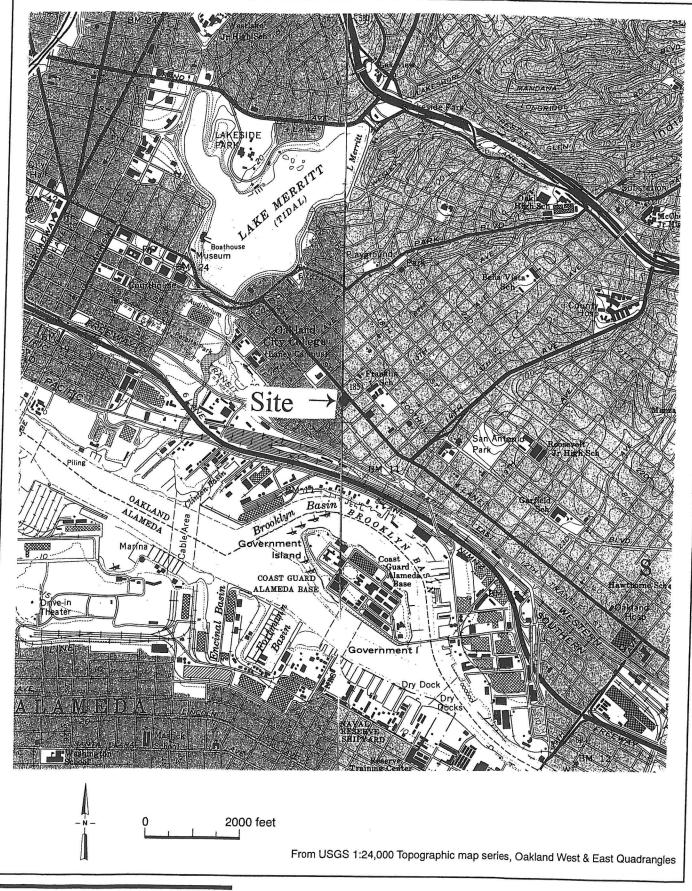
Appendix B - Well Boring Logs

Appendix C - Well Survey Map

Appendix D - Site Safety Plan

cc: Mark Detterman, Alameda County Health Care Services

0459\2014 well destruct wkpln



EDD CLARK
ENVIRONMENTAL
JOB NUMBER

EDD CLARK & ASSOCIATES, INC.

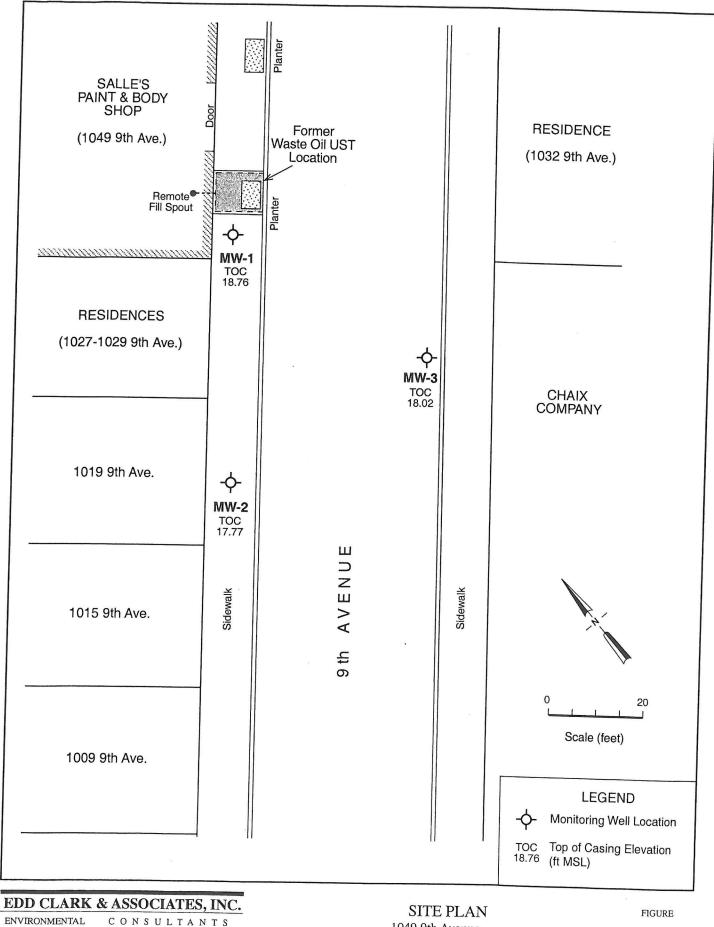
CONSULTANTS

SITE LOCATION MAP

1049 9th Avenue Oakland, California PLATE

1

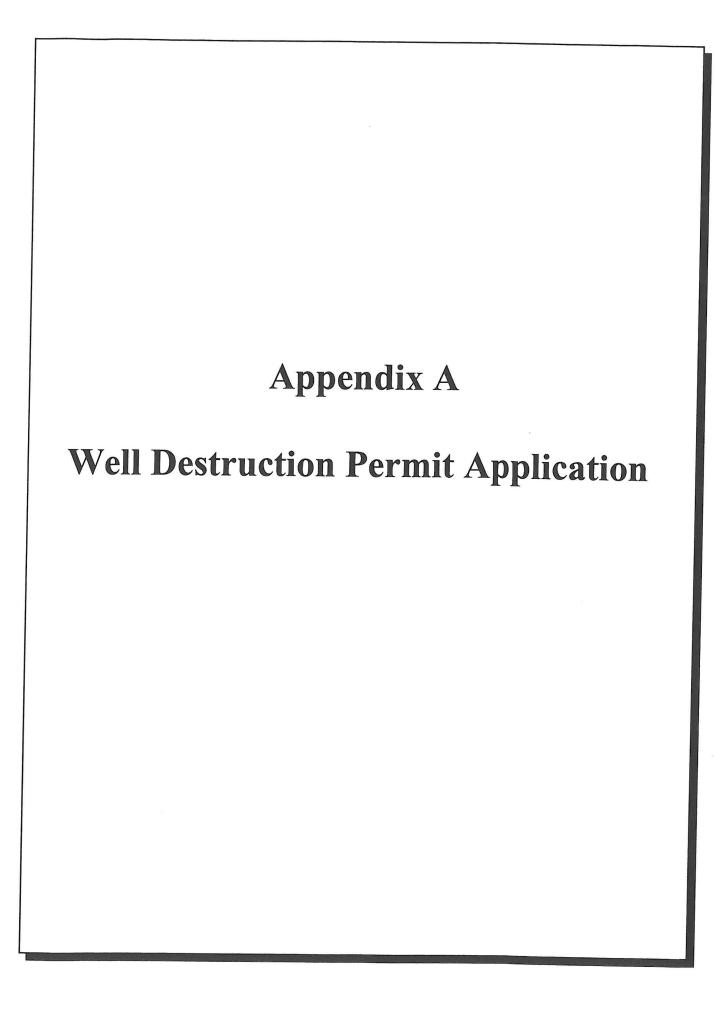
JOB NUMBER		REVIEWED BY		DATE	DEMOCE	
	0459, 001,03		EC&A. Richard Elv	June 2003	REVISED	SHEET
-	0433, 001.03		ECAA, Richard Ely	Julie 2005	1	NO. 1 of 1



1049 9th Avenue Oakland, California

2

REVIEWED BY JOB NUMBER DATE REVISED 0459, 001.03 EC&A, Richard Ely SHEET NO. 1 of 1 October 2000 December 2011





ALAMEDA COUNTY PUBLIC WORKS AGENCY

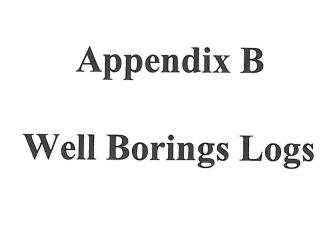
Water Resources Section, Attn: James Yoo 399 Elmhurst Street, Hayward, CA 94544-1395 Phone: (510) 670-6633 Fax: (510) 782-1939

General Info: www.acgov.org/pwa/wells or email at wells@acpwa.org

DRILLING PERMIT APPLICATION

Applicants: Plea	ase attach a sit	e map for all drill	ing p	ermit applica	tions (include stre	eet names,	North a	rrow, and label w	ells and boreholes).
Location of Pro	jecti W	19 9th	Λ	anve		7 3 /	, _	,	ens ana voi envies).
City: OAVA				Applicant's	Signature:	LE			
Project start dat	e: MAy 70	15; datas Tr	Gc	F	Project completio	n date:	JAU 1	015.04	TOD
Please Pr		ly	IP I	lease Pr	int Legibly	<u>-</u>	-	J	rint Legibly
PROPERTY OWN	ER ON	APPLI		(i.e., Geotechni				CLIENT Of differ	ent than property owner,
Name & Will	MILY YAKHWA	1 1	se Mos	me: Edd (lark & ASSOCIA	los ot	v	Comple	te this section)
1 111	ET Al.	Contac		, /	When	M-1 COL	JC-	Name: W	AND COUNTAN
Adaless: 2007				A 0	STIGUAL CHY D	M A	7.15	Address: Q()	Ark rom
City, State, Zip:	DAY DAINE			ip: Ronnor		1952		4.50	
94620	0, 100 114					1130		City, State, Zip:	CARCANO, CA
					92-9500			94650	
Phone: Soc. (1 1	7 1	1.	16-9915	_ Fax: 101 7	72-9504	4		P /
	, ,	Email:	50	somme s	fon.sinc			Phone: (510)	75-7175
Ema Sol (thail	cc Emai	1: 9	<u>joannc</u> e	ton. Since			Email: MONA	IN The amail was
T 47			W	ORK CAT	EGORIES/WO	RK TYP	ES		<u>J</u>
Type of Project		That Apply							
Well Construction Water Monitori Piezometer/Seis Water Supply:	ng Moni mic Catho (check one)	toring Well Re-drill ode Industrial		Piezometer/S Geothermal	oring Was Seismic Car	ater Supply thode		Construction Construction Destruction	\$265 per site/per work type Extraction Injection Extraction
		Irrigation	Va Va	Other - Pleas	e explain:			Destruction	□ Injection
☐ Geothermal			T	Construction	ng Well-\$265 per site	per work ty		reholes- \$265 per site Contamination	per work type
☐ Other – Please e	xplain:			Destruction				Geotechnical	☐ Environmental
Drilling Method	- Check All	That Apply (If m	ore th	an one, explai	n below.)				
Hollow Stem Au		☐ CPT/MIP		☐ Co	ncrete Core	Other-	Describe:		
☐ Solid Stem Auge ☐ Geo Probe (Dire	et Puch)	☐ Mud Rotary		☐ Ha	nd Auger		w=		
	ct rusii)	☐ Air Rotary			·····				
Driller's Name/M	ethod: CLE	ARHEART DA	14/1	Vs. San	m. Lac	Dr	iller's Li	cense No.: 78	0367
Driller's Name/M	ethod:			/		Dr	iller's Li	cense No.:	
	WELL PI	ROJECTS (Add	extr	a pages if n	eeded; for well	destructi	on, inclu	ide documents)	
-		Drill Hole		Casing	Surface Seal	Max.			T -
	Well ID	Diameter (in.)		meter (in.)	Depth (ft.)	(fi		Latitude	Longitude
1 MW-1		ØII	2"		0-4	10			Dongitude
2 MW-2		811	2"		0-4	20			
MM	·	Su	2"		0-4	10			
<u> </u>	************								
)									
T CD 1 1		BORE	HOI	LE PROJEC	CTS (Add extra	pages if	needed)		
No. of Boreholes	Dril	ling Method		Но	ole Diameter (in.))		Max. Dep	th (ft.)

									CONTRACTOR



BORING LOCATI	ON	1049 9th A	venue, Oakland,	, CA		***************************************		ELEVATION	/DATUM	10746	BORING N	0. 1411
DRILLING AGEN	ĊY	Gregg Drill	ling	DRILLER		Rich		DATE STAP	TED	18.76 ft 08 Sep 00		M W-1
DRILLING EQUIP	MENT	Rhino D-15					COMPLETI		20.0 ft	SAMPLER	08 Sep (
DRILLING METH	OD	Hollow Ste	em Auger	DRILLBIT		8 inches		NO. OF	DIST.		UNDIST.	Push
SIZE AND TYPE	OF CAS				FROM	20.0 ft TO	005	SAMPLES	-		-	
TYPE OF PERFO	RATION				FROM	20.0 ft TO		CORE BAR		11.0 ft	MEASURE	
SIZE AND TYPE (OF PACH				FROM			LOGGED B		2.0 inches		18 inches
	NO. 1	Bentonite	, Sand		FROM	20.0 ft TO		COMMENT		R. Ely	CHECKED	BY:
TYPE OF SEAL	NO. 2				FROM	4.0 ft TO		COMMITTAL	٥,			
σ	140.2	Portland Ce	ment			3.0 ft TO	0.2 ft					
DEPTH (feet) SAMPLES RUN			MATERIAL DESCRIPTION						USCS	WELL CONSTRUC		
-111		\ \	Concrete Sidewalk.									
-		Sandy Clay	Sandy Clay - 2 to 3 inch transitional, dark gray-brown.									
		SANDY CL	AY (CL) – nativ	e soil, stro	ng brow	n (7.3YR 5	/6).			^ <u>-</u>	~	MC NC
						(110 111 0					CL	4.7 8
1										_		
5		▼ Color change	e to dark brown	(7.5YR 4.4	4), dry to	n moist stiff	f			_		
_ 1							••			-		
		▼ Color chang	e to grayish-gree	en (10GY :	5/2), dry	, hard.						
-								u u		-		
111										1		
-										7		
7										-		5
10										-1		Well Screen
2												W S
		SAND (SP),	grayish-green (5	G 4-5/2), v	vet, dens	se, well-sorte	ed medit	ım-grainec	d sand,	* -	SP	0010
]		Subtounded t	to rounded quart	z with trac	e marics	; faint prodi	uct odor.			4		
-												
_										+		
-		SANDY SIL	T (ML), grayish-	brown to	grayish-	green (10YI	R 5/2 to	10G 4/2) r	nottled		ML	
15		brownish-yel	llow (10YR 6/6).	, damp, sti	ii, tine-g	grained sand	with tra	ice mica.		_		
3										_		
										1		
]		
												Service .
		T SAND (SP) -	6 inch thick bed	at 18.7-19	.2 ft, oliv	ve-gray, dan	np, loose	, well-sorte	ed medi	ium-		
- 4		SAND (SP) – grained sand	6 inch thick bed (same as at 11 ft	at 18.7-19 :).	.2 ft, oliv	ve-gray, dan	ıp, loose	, well-sorte	ed medi	um		
4		I SAND (SP) – grained sand	6 inch thick bed (same as at 11 ft	:). 	.2 ft, oliv		np, loose	, well-sorte	ed medi	ium-		
4		→ grained sand	(same as at 11 ft	TD: 2			np, loose	, well-sorte	ed medi	um		
	Lee	SAND (SP) – grained sand	(same as at 11 ft	TD: 2			np, loose	, well-sorte	ed medi	ium		经 电子

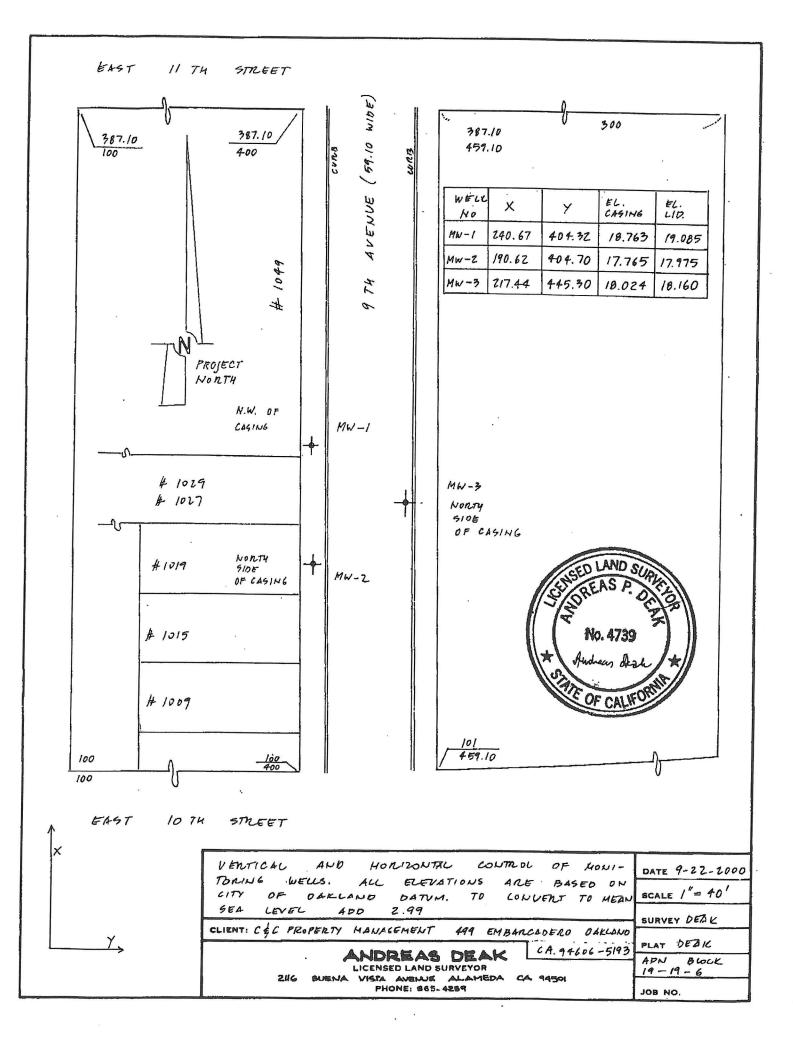
00	NG LC	CAT	ION		1049 9th Avenue, Oakland	 I, CA				ELEVATION			BORING NO	' MW 2
DRILLI	ING A	GEN	CY		Gregg Drilling	DRILLER		Rich		DATE STAR	TED	08 Sep 00		08 Sep 00
DRILLI	ING E	QUII	ME	NT	Rhino D-15					COMPLETIC		20.0 ft	SAMPLER	
DRILLI	NG N	METH	ЮD		Hollow Stem Auger	DRILL BIT		8 inches		NO. OF	DIST		UNDIST.	Push
SIZE A	ND T	YPE	OF C	CASING	2.0 inch PVC		FROM	20.0 ft TO	0.2 ft	SAMPLES WATER LEVEL		None	COLLECTED	None
TYPE (OF PI	ERFC	RAT	ION:	0.01 inch Slotted		FROM	20.0 ft TO	5.0 ft	CODE DADE		2.0 inches	LENGTH	18 inches
SIZE A	ND T	YPE	OF F	ACK	RMC #2/12 Sand		FROM	20.0 ft TO	4.0 ft	LOGGED BY	r:	R. Ely	CHECKED B	
			N	0. 1	Bentonite		FROM	4.0 ft TO	3.0 ft	COMMENTS	S:		<u>L. </u>	
TYPE	JF SI	EAL	N	0.2	Portland Cement		FROM	3.0 ft TO	0.2 ft					
DEPTH (feet)	SAMPLES	RUN				MATERI	IAL DESC	RIPTION		•			USCS	WELL CONSTRUCTION
_				T	Concrete Sidewalk.			• •						Lock
5		1			SANDY CLAY (CL), brow to coarse-grained sand of st	n (7.5YR S	5/6) to da	ark brown (2.	5YR 3/ with tra	(2), dry, sti	f, med	lium-	CL	2" PVC
10		2			CLAYEY GRAVELLY SAN medium- to very coarse-gramafics and black chert (?), so CLAYEY SILT (ML), light (10YR 5/4), moist, stiff, trace	ined sand, subrounded	subangu I pebbles	lar to rounder to 1 cm long	d mostl	y quartz w and black	ith trac	sorted -	SC SC ML	0.010 Well Screen
15 - 1 - 1		3			SILTY SAND (SP), light bro	 wnish-grav	··· ·· (2.5Y 6/	— — — — '3) to olive ve			oist d	ense.	SP	
20 —		4	1		well-sorted fine-grained sand	i.	,	-,				~	JI.	
-		1			<i>s</i> .	TD:	20.0 ft b	gs				-	7	

g Harris	& Lee Environ	mental Sciences					
AEAIEMED E	Richard Ely	DATE: September 2000	FIELD LOG OF BORING NO.	MW-2	SHEET NO.	1 O F	1

	NG LO				1049 9th Ave	nue, Oakland, (CA				ELEVATION		18.02 ft	BORING NO.	MW-3
DRILL	ING AC	GENC	Y		Gregg Drillir	ıg .	DRILLER		Rich		DATE STAR	TED	08 Sep 00	-	08 Sep
DRILL	ING E	QUIP	MENT	r 	Rhino D-15						COMPLETIO	NC	20.0 ft	SAMPLER	Push
DRILL	ING M	ETHO	D		Hollow Stem	Auger	DRILL BIT		8 inches		NO. OF SAMPLES	DIST,	4	UNDIST.	_
SIZE	אד סאי	PE C	FCA	SING	2.0 inch PVC			FROM	20.0 ft TO	0.2 ft	WATER LEVEL	FIRST	None	COLLECTED	None
TYPE	OF PE	RFO	RATIC	ON:	0.01 inch Slo	tted		FROM	20.0 ft TO	5.0 ft	CORE BAR		2.0 inches	1	18 inch
SIZEA	ND TY	PE O	FPA	CK	RMC #2/12 S	/12 Sand		FROM	20.0 ft TO	4.0 ft	LOGGED B	Y:	R. Ely	CHECKED BY	r:
20/05	05.05		NO.	1	Bentonite		-	FROM	4.0 ft TO	3.0 ft	COMMENT	3:			
TYPE	, , ,	AL	NO.	2	Portland Cem	ent		FROM	3.0 ft TO	0.2 ft					
DEPTH (feet)	SAMPLES	RUN					MATERI	AL DESCE	RIPTION					uscs	WEI
			\forall	下	Asphalt.										
-				_	Road Gravel.										\exists
5—		2		₹	Same as above	rown to dark bro		R 3-5/3).	moist, loose	well-sa	onted fine-	to med	lium.	SP	0.010 Well Screen 2" PVC
15		3		₹	mottled yellow	ID and SANDY ish-brown (10)	YR 5/4-6)	, well-so	rted fine-gra	ined sa	nd.		rse	SC/CL	
20 -							TD:	20.0 ft bg	gs					-	_15=4:3:_
larr	is	& I	Le	e I	Environmen	ital Science	s								
RACH H						DATE:								SHEET NO.	

REVIEWED BY: Richard Ely	DATE: September 2000	FIELD LOG OF BORING NO.	MW-3	SHEET NO.	OF 1
--------------------------	----------------------	-------------------------	------	-----------	------

Appendix C
Well Survey Map



Appendix D
Site Safety Plan

A.

GENERAL INFORMATION
Site Location: Salle's Paint & Body Shop, 1049 9th Avenue, Oakland, California
Plan Prepared By: Ackering From Date: March 31, 2015 Kevin Coker, Project Scientist
Site Description : The site is located at the northwestern corner of 9 th Avenue and East 11 th Street, with the physical address of 1049 9 th Avenue (site) in Oakland, California. The site is known as Salle's Paint & Body Shop, an automotive paint and body shop. The site is located as shown on the Site Location Map, Figure 1; general site features are as shown on the Site Plan, Figure 2.
UST History (Agency Action, Complaints, Injuries, etc.): One 1000-gallon UST for gasoline was removed on December 29, 1993, and one 280-gallon UST for waste oil was removed on July 20, 1994. Three monitoring wells were installed on September 8, 2000. In a letter dated April 7, 2014, the Alameda County Health Care Services (ACHCS) directed the submittal of a Focused Site Conceptual Model and a Data Gap Investigation Workplan in response to eight technical comments in their letter. The primary concerns expressed by ACHCS were that free product may be present in the gasoline and/or waste-oil UST excavations because highly impacted soil may have been used to backfill the excavations. EC&A's June 27, 2014, Soil Disposal Documentation report addressed those concerns and recommended that the site be considered for closure. EC&A's July 21, 2014, Focused Site Conceptual Model and a Data Gap Investigation Work Plan recommended that a search be done for domestic water wells within 250 feet of the former UST locations, and if none were found, the site should be considered for closure. In an email dated August 14, 2014, the ACHCS reported that a search of their records showed that there were no domestic wells in the vicinity of the site. In an email dated October 20, 2014, the ACHCS stated that because the public comment period had closed with no comments, the site wells could be decommissioned.
Objective(s): Decommission three groundwater monitoring wells and dispose of all investigation-derived wastes to lead the site to Case Closure.
Background Review: Completex Preliminary
Documentation/Summary Overall Hazard: Serious Moderate_x_ Low Unknown
Unusual Features (power lines, terrain, utilities, etc.): Work in the sidewalk and shoulder of 9 th Avenue; appropriate traffic/pedestrian control will be employed.
Status

Active ___ x Inactive ___ Unknown ___

B. SITE WASTE CHARACTERISTICS

Waste Type(s):	Liquid <u>x (wate</u>	er) Solid x (so	il) Sludge	Gas
Characteristic(s Volatilex		Ignitable Reactive	Radioactive Unknown Other (na	me)

Principle Disposal Method: Soils from the monitoring well borings and rinsate from decontamination procedures will be temporarily contained onsite in properly covered and labeled DOT 17H 55-gallon drums for temporary onsite storage. Disposal documentation will be provided to the ACHCS.

C. HAZARD EVALUATION

Constituents of Concern (COC)	Description	8-hour Time Weighted Average (TWA) ^a	15-minute Short-term Exposure Limit (STEL) ^a	Exposure Routes	Symptoms	Target Organs
Benzene	Carcinogen, aromatic HC	1.0 ppm	5.0 ppm	Inhalation, dermal ingestion	Headache, dizziness	Eye, skin, respiratory system, blood, CNS, bone marrow
Toluene	Aromatic HC	200 ppm	500 ppm ^b	Inhalation, dermal, ingestion	Headache, dizziness	Eye, skin, respiratory system, CNS, liver, kidneys
Ethylbenzene	Aromatic HC	100 ppm	125 ppm	Inhalation, dermal, ingestion	Headache, dizziness	Eye, skin, respiratory system, CNS
Xylenes	Aromatic HC	100 ppm	150 ppm	Inhalation, dermal, ingestion	Headache, dizziness	Eye, skin, respiratory system, CNS, GI tract, blood, liver, kidneys
Gasoline	Flammable liquid	-	-	Inhalation, dermal, ingestion	Headache, dizziness	Irritation, CNS
Diesel Fuel	Flammable liquid	. =	<u> </u>	Inhalation, dermal	Headache, dizziness, eye/skin irritation	-
MTBE	Flammable liquid, Oxygenate	50 ppm ^c	-	Inhalation, dermal, ingestion	Headache, dizziness, eye/skin irritation,	Mucus membrane, irritation, CNS

		-	,		nausea	
Lead	Possible Carcinogen	0.050 mg/m ³	· _	Inhalation, ingestion, dermal	Headache, dizziness, eye/skin irritation	Liver, GI tract, blood and Kidneys
Naphthalene	Possible Carcinogen	10 ppm	-	Inhalation, dermal	Headache, dizziness, eye/skin irritation	Liver and Kidneys
1,2-DCA	Flammable liquid, lead scavenger	50 ppm	200 ppm ^d	Inhalation, dermal, ingestion	Nausea, vomiting, eye/skin irritant	Eye irritant, corneal opacity, CNS, cardiovascular system
2-methyl-nap hthalene	Solid			Inhalation, skin & digestion	Similar to naphthalene	Similar to naphthalene
PCE	VOC, solvent	5 ppm		Inhalation, dermal & ingestion	Eye, nose, throat, skin irritation, nausea, flushed face vertigo	Eyes, skin, CNS, liver
TCE	VOC, solvent	100 ppm	300 ppm ^b	Inhalation, dermal & ingestion	Headache, vertigo, visual disturbance, vertigo	Eyes, skin, respiratory system, heart, liver kidneys, CNS
Chlorobenze ne OSHA PEL regulation, u	Colorless liquid, almond odor	75 ppm	inute maximum peak	Dermal, inhalation & eyes	Burning eyes, nose, skin & throat	Skin, eyes, CNS, liver, respiratory system

Special Precautions and Comments: Follow standard safety procedures for working around heavy equipment. Verify that all equipment is in good condition. Conduct air monitoring to evaluate respiratory and explosion hazards. There will be no eating, smoking, or drinking within the work zone. Appropriate traffic and pedestrian control measures will be employed, as required by the City of Oakland. The work zone will be controlled to prevent pedestrian and vehicular traffic from entering.

D. SITE SAFETY WORKPLAN

Perimeter Establishment: Map/Sketch Attached <u>x*</u> Site Secured <u>x</u> Perimeter Identified: <u>x</u> Zone(s) of Contamination Identified: <u>x</u>
*See Workplan
Personal Protection: Level of Protection A B C D _x
Modifications : Upgrade to level C based on COCs' STELs (see table)

Surveillance Equipment and Materials: Instrument PID

Action Level: Based on STEL on each COC (see table)

Level of Protection: Equipment to protect the body from contact with chemical hazards has been categorized by the Environmental Protection Agency into levels A, B, C, & D. Level A equipment is used when the highest level of protection is needed; Level D equipment is used when minimum protection is needed. The chemical hazard associated with VOCs is typically low and Level D protection (see equipment list below) is adequate. In case of high levels of contamination, an upgrade to Level C protection equipment may be advised. Level C and D equipment are listed below.

<u>Level C Equipment</u>: NIOSH/MSHA approved air purifying respirator, chemical resistant clothing, chemical resistant inner and outer gloves, chemical resistant boots with steel toe and shank, safety glasses and hard hat.

<u>Level D Equipment</u>: Coveralls, gloves, chemical resistant boots or shoes with steel toe and shank, safety glasses or chemical splash goggles, and hard hat. Tyvek overalls and Solvex or equivalent gloves are recommended.

Site Procedures: The area of excavation will be marked for Underground Service Alert (USA). The ACHCS will be notified 48 hours prior to commencement of the monitoring well decommissioning activities.

Work Limitations (time of day, weather, heat/cold, stress): Normal business working hours.

Hazards: Potential hazards onsite comprise proximity to the drill rig, exposure to explosive and flammable petroleum vapors and carcinogens, and area vehicular traffic.

Equipment required for this Project: Normal work clothing may be worn. Following additions listed below.

<u>Drilling and Excavating:</u> Wear a hard hat when near the drill rig; wear a safety vest when working near the roadway(s).

Soil Sampling: Chemical-resistant gloves are required when sampling.

Groundwater Sampling: Chemical-resistant gloves are required when sampling.

<u>Air Monitoring</u>: The combustible gas indicator is to be used to monitor air in breathing zone. Continuous readings of COCs at or greater than their respective STEL may require Level C (incusing a half face respirator) or exiting the work zone.

Decontamination Procedures:

<u>Personal</u>: Remove gloves, wash hands; clean boots in decontamination area. <u>Equipment</u>: Steam cleaning of all drilling equipment in the decontamination area. TSP wash of sampler between samples.

E. EMERGENCY INFORMATION

Local Resources:

Ambulance: 911
Poison Control Center: 911
Police: 911
Fire Department: 911
Explosives Unit: 911

Hospital Emergency Room: Highland Hospital

1411 East 31st Street Oakland, California (510) 437-4800

For emergency route see Figure H attached.

Site Resources:

Water Supply: Onsite
Telephone: Onsite
Radio: None
Other:

Agency Contact:

Mark E. Detterman, Alameda County Health Care Services

(510) 567-6876

Emergency Contact:

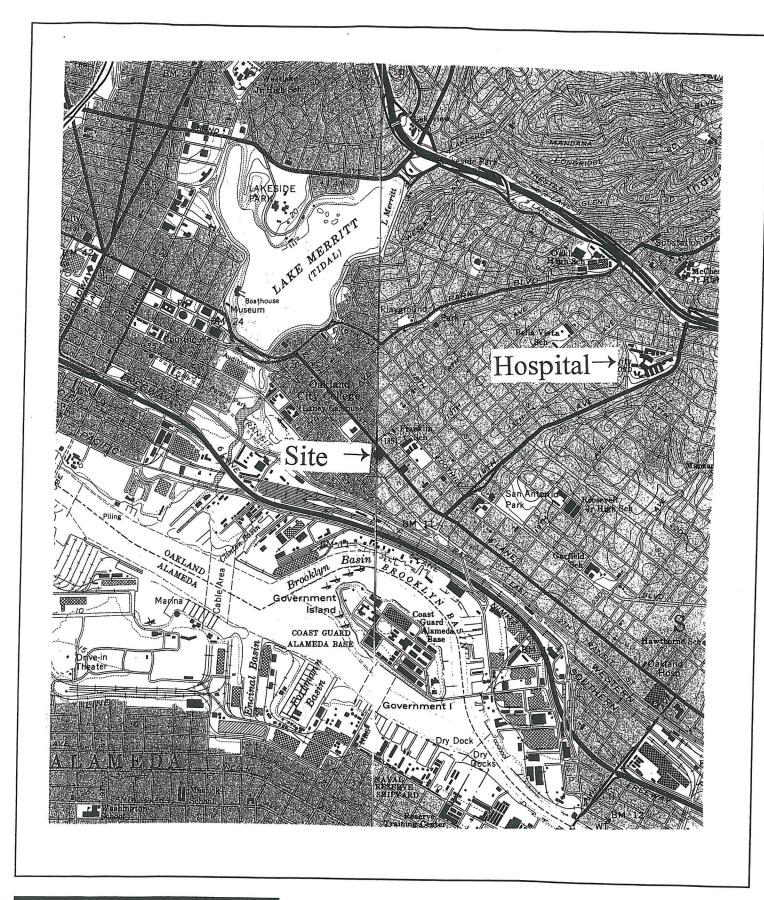
Name: Dick Cochran Phone: (510) 834-9816

EC&A Project Manager:

Name: Richard Ely Phone: (707) 321-7267

Signature			Date		
		,			
×	9	r .			
-	3				
		2 .			
	u.	3			
		3			
			¥ 8		

0459/WP/SHSP



EDD CLARK & ASSOCIATES, INC.

ENVIRONMENTAL CONSULTANTS

Hospital Map Highland Hospital 1411 East 31st Street Oakland, California

PLATE

H