1 2 3 4 5 6 7 8	DAVID E. CRANSTON (SBN 122558) dcranston@greenbergglusker.com BRIAN E. MOSKAL (240704) bmoskal@greenbergglusker.com GREENBERG GLUSKER FIELDS CLAMA MACHTINGER LLP 1900 Avenue of the Stars, 21st Floor Los Angeles, California 90067-4590 Telephone: (310) 553-3610 Fax: (310) 201-2368 Attorneys for Petitioners GGL-Pan, LLC, Jan-Pan, LLC, Ron-Pan, LLC, and Schaefer-Pan, LLC	AN & Office of the Office of t	
9	STATE C	DF CALIFORNIA	
10	STATE WATER RES	OURCES CONTROL BOARD	
11			
12	In The Matter of the Petition of	Petition Number:	
13 14	GGL-Pan, LLC, Jan-Pan, LLC, Ron-Pan, LLC and Schaefer-Pan, LLC,	PETITION FOR REVIEW OF LARWQCB INVESTIGATIVE ORDER NO. R4-2014-0103 DATED JUNE 16, 2014	
15	Petitioners.		
16			
17	INTRODUCTION AND SUMMARY		
18	Petitioners GGL-Pan, LLC, Jan-Pan,	LLC, Ron-Pan, LLC, and Schaefer-Pan, LLC	
19	(collectively, "Petitioners") respectfully petition the California State Water Resources Control		
20	Board ("State Board") pursuant to California Water Code section 13320 and California Code of		
21	Regulations ("CCR") title 23, section 2050 to review the California Regional Water Quality		
22	Control Board, Los Angeles Region's ("Regional Board") Investigative Order No. R4-2014-0103,		
23	issued pursuant to California Water Code section 13267 and dated June 16, 2014 ("Order").		
24	Petitioners also request that the State Board hold this Petition in abeyance pursuant to CCR title		
25	23, section 2050.5(d).		
26	Although Petitioners do not request a	stay of the Order at this time and intend to cooperate	
27	with the other named discharger, Teledyne T	echnologies Incorporated ("Teledyne"), in its efforts	
28	to comply with the Order by providing data and reviewing and commenting on Teledyne's draft 53760-00102/2210582.4		
	PETITIO	N FOR REVIEW	

1	report and work plan prepared under the Order, Petitioners seek to preserve their rights to protect		
2	themselves from any action or inaction that violates Petitioners' rights or applicable law.		
3	PETITION FOR REVIEW		
4	Pursuant to CCR title 23, section 2050, Petitioners provide the following information in		
5	support of this Petition:		
6	1. <u>CONTACT INFORMATION OF PETITIONERS</u>		
7	The name, address, telephone number, and email address of Petitioners' primary contact		
8.	is:		
9	GGL-Pan, LLC, Jan-Pan, LLC, Ron-Pan, LLC, and Schaefer-Pan, LLC c/o Ronald Lushing		
10	2029 Century Park East, Suite 1040		
11	Los Angeles, CA 90067 Telephone: (310) 550-1144		
12	Email: <u>rlushing@mac.com</u>		
13	However, Petitioners should be contacted through their legal counsel:		
14	David E. Cranston and Brian E. Moskal Greenberg Glusker Fields Claman & Machtinger LLP		
15	1900 Avenue of the Stars, Suite 2100		
16	Los Angeles, California 90067 Telephone: (310) 553-3610		
17	Email: <u>dcranston@greenbergglusker.com</u> and <u>bmoskal@greenbergglusker.com</u>		
18	Ira Waldman & Perry Hughes		
19	Cox, Castle & Nicholson LLP 2049 Century Park East, 28th Floor		
20	Los Angeles, CA 90067 Telephone: (310) 284-2200		
21	Email: <u>iwaldman@coxcastle.com</u> and <u>phughes@coxcastle.com</u>		
22	2. <u>ACTIONS FOR WHICH PETITIONERS SEEK REVIEW</u>		
23	Petitioners seek review of Regional Board Investigative Order No. R4-2014-0103, dated		
24	June 16, 2014 ("Order"). Specifically, they have been named as primary dischargers, and they		
25	instead should have been named only as secondary dischargers, it at all, responsible for		
26	compliance only if Teledyne, the appropriate primary discharger, fails to comply. A true and		
27	correct copy of the Order and its cover letter are included as Exhibit A in Petitioners' Appendix in		
28	Support of Petition ("Appendix") submitted herewith.		
	53760-00102/2210582.4 2		

PETITION FOR REVIEW

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# DATE ON WHICH THE REGIONAL BOARD ACTED

The Regional Board issued the Order and sent it to Petitioners by certified mail and email on June 16, 2014.

# 4. <u>STATEMENT OF REASONS WHY THE ACTION WAS</u> INAPPROPRIATE OR IMPROPER

As discussed more fully in Petitioners' Points and Authorities in Section 7, the Regional Board's finding in paragraph 4 of the Order that Petitioners are "parties responsible for the discharges of waste" at the property constitutes an abuse of discretion to the prejudice of Petitioners by naming them as <u>primary</u> dischargers. They instead should have been named only as <u>secondary</u> dischargers, it at all, responsible for compliance only if Teledyne, the appropriate primary discharger, fails to comply.

# 5. <u>THE MANNER IN WHICH PETITIONERS ARE AGGRIEVED</u>

Petitioners are aggrieved because they have been named as <u>primary</u> dischargers, and they instead should have been named only as <u>secondary</u> dischargers, it at all, responsible for compliance only if Teledyne, the appropriate primary discharger, fails to comply.

# 6. <u>SPECIFIC ACTION PETITIONERS REQUEST OF THE STATE BOARD</u>

Petitioners respectfully request that the State Board: (1) accept this Petition; (2) determine that the Order is inappropriate and improper to the extent the Regional Board named Petitioners as <u>primary</u> dischargers instead of <u>secondary</u> dischargers, it at all, responsible for compliance only if Teledyne, the appropriate primary discharger, fails to comply; and (3) direct the Regional Board to amend the Order to name Teledyne as primary discharger and Petitioners as secondary dischargers, if at all, responsible for compliance with the Order only if Teledyne fails to comply. However, Petitioners request that the State Board hold the Petition in abeyance at this time pursuant to CCR, title 23, section 2050(d), and they reserve the right to supplement the Petition.

Although Petitioners have not requested a stay of the Order at this time, they request that findings contained in the Order be made accurate. Petitioners also seek to preserve their rights to protect themselves from any action or inaction that violates their rights or applicable law,

including being improperly and inappropriately named primary dischargers in the Order.
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PETITION FOR REVIEW

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# STATEMENT OF POINTS AND AUTHORITIES IN SUPPORT OF THE PETITION

Petitioners provide the following points and authorities demonstrating that the Regional Board abused its discretion in naming Petitioners as <u>primary</u> dischargers instead of <u>secondary</u> dischargers, it at all, responsible for compliance only if Teledyne, the appropriate primary discharger, fails to comply.

# A. <u>Procedural and Factual Background</u>

1.

The procedural and factual background of this matter is set forth below.

9

# The Order's Requirements

The Order requires Teledyne and Petitioners to submit to the Regional Board by August 15, 2014 a site assessment summary report that describes all site assessment activities completed to date to delineate the horizontal and vertical extent of affected soil, soil gas, and groundwater. Exhibit A (Order), p. 3. The Order also requires Teledyne and Petitioners to submit to the Regional Board by August 30, 2014 a work plan to complete the delineation of the horizontal and vertical extent of affected soil, soil gas, and groundwater. *Id* 

# 2. <u>Teledyne Caused Waste Discharges and Resulting Property</u> <u>Contamination</u>

The Order describes how the site became contaminated: "Teledyne . . . facilities have operated at the approximately 5.7 acre

"Teledyne . . . facilities have operated at the approximately 5.7 acre
site in the City of Los Angeles under a lease as a tenant from the
early 1960's<sup>[1]</sup> [sic] until approximately late 2013. . . . During their
occupancy of the property, Teledyne conducted aerospace and
electronic component manufacturing operations at the site. *Due to this historical use at the site*, soil and groundwater underlying the
site have been affected by volatile organic compounds (VOCs)
including tetrachloroethene (PCE) and trichloroethene (TCE), and

- 27
- <sup>1</sup> The evidence demonstrates, and Teledyne has not disputed, that Teledyne's predecessor began operating at the site in 1957.
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PETITION FOR REVIEW

1 Title 22 metals including antimony, arsenic, cadmium, chromium, 2 nickel, and selenium." Exhibit A (Order), p. 1 (emphasis added). 3 4 3. Petitioners Did Not Engage in Operations, Cause Waste 5 Discharges, or Know About Teledyne's Operations and Waste 6 Discharges 7 Petitioners, by contrast, are a set of family-owned and operated companies whose family 8 has owned the property for generations. Exhibit B, Declaration of Ronald Lushing, ¶ 2 (attached 9 to Appendix). Neither Petitioners nor their predecessors-in-interest to the property ever engaged 10 in any operations at the property associated with wastes, including discharge of wastes. Id.  $\P 6$ . 11 They also had no knowledge that their lessee Teledyne's operations could result in the discharge 12 of waste at the property. Id. ¶ 7. They knew Teledyne was producing a product at the property, 13 but until near the end of Teledyne's lease term, they knew nothing more specific, including the 14 nature of Teledyne's operations, the substances it used, the process and other wastes it generated, 15 how Teledyne disposed of those wastes, or that Teledyne's operations caused releases of wastes 16 to the property and its subsurface. Id.  $\P 8$ . Petitioners' representative, Ronald Lushing, recalls 17 visiting the property approximately once every five years to attend meetings, primarily to attend 18 to lease-related matters. Id. ¶ 4. He did not inspect Teledyne's operations during those visits 19 until near the end of Teledyne's lease term. Id. 20 The Order bolsters Petitioners' lack of knowledge about Teledyne's operations and waste

20 The Order bolsters Petitioners Tack of knowledge about Teledyne's operations and waste
21 discharges. It does not indicate that Petitioners engaged in any operations at the property
22 associated with wastes including those at issue in the Order. Nor does the Order state that
23 Petitioners have ever discharged or are suspected of having discharged those wastes (or any
24 others).

Further, no evidence in the record at the time the Regional Board issued the Order
 controverts Petitioners' lack of culpability for property operations and waste discharges. None of
 that evidence, which is cited in the Order, indicates – or even suggests – Petitioners engaged in
 any such operations or were involved with any such actual or threatened discharges (or knew
 <sup>53760-00102/2210582.4</sup>

1 about those of Teledyne). The Order states that the Regional Board's evidence consists of "preliminary data submissions, a draft site assessment summary report, and a draft removal action 2 3 work plan indicating there has been a discharge of waste from the site." Exhibit A (Order), p. 2. 4 A draft Removal Action Work Plan prepared by Alta Environmental ("Alta") for Teledyne, dated 5 July 10, 2013, which also contains site assessment information and was submitted to the Regional 6 Board that same day, is included in the Appendix as Exhibit C. The Order appears to refer to this 7 report as the "draft site assessment summary report, and a draft removal action work plan." The 8 report simply identifies Petitioners as property owners. Exhibit C, pp. 1, 2. It references no 9 operations or actual or threatened waste discharges by Petitioners.

10 A May 16, 2013 letter from Teledyne to the Regional Board about the property attaching 11 preliminary data is included in the Appendix as Exhibit D. These documents appear to constitute 12 the "preliminary data submissions" referenced in the Order. Like the report discussed above, this 13 data submission does not indicate Owners engaged in any operations involving, or caused actual 14 or threatened discharges of, wastes at the property.

## В. The Regional Board Abused Its Discretion by Not Naming Teledyne the Primary Discharger and Petitioners Secondary Dischargers

17 Given the Regional Board's finding that Teledyne's activities caused the property 18 contamination at issue in the Order, coupled with the uncontroverted evidence that Owners never 19 engaged in operations at the Property that caused waste discharges or knew about Teledyne's 20 operations and discharges, the Regional Board abused its discretion by not naming Teledyne a primary discharger and Petitioners secondary discharges responsible for complying with the 22 Order only if Teledyne failed to do so.

23 Under controlling State Board precedent, the Regional Board should have exercised its 24 discretion to name Teledyne the primary responsible party and Petitioners secondary responsible 25 parties. In its decision In the Matter of the Petitions of Aluminum Company of America, et al., Order No. WQ 93-9, the State Board found: 26

27 "All of this Board's orders addressing primary versus secondary 28 liability have made a distinction between those parties who were 53760-00102/2210582.4

PETITION FOR REVIEW

GREENBERG GLUSKER FIELDS CLAMAN & MACHTINGER LLP 1900 Avenue of the Stars, 21st Floor Los Angeles, California 90067-4590

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GREENBERG GLUSKER FIELDS CLAMAN & MACHTINGER LLP 1900 Avenue of the Stars, 21st Floor Los Angeles, California 90067-4590

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considered responsible parties due solely to their land ownership ... and those parties who actually operated the facility or otherwise caused the discharge in question. [Citing seven State Board decisions so holding.] This distinction has been made primarily for equitable reasons. The Board has concluded that the initial responsibility for cleanup should be with the operator or the party who created the discharge."

Id. at p. 12 n.8 (July 22, 1993) (emphasis added; citations omitted). As indicated in this decision, 8 9 numerous State Board decisions support this distinction between primarily and secondarily liable parties. 10

This case falls squarely within this rule. Petitioners are "considered responsible parties" due solely to their landownership." See id.; Exhibit A (Order), p. 2 ("This Order identifies Teledyne and [Petitioners] as the parties responsible for the discharges of waste . . . because you leased/operated (Teledyne) and owned (Ron Pan, LLC et al.) the property on which the waste has been discharged.") (emphasis added). Teledyne, by contrast, is one of "those parties who actually operated the facility or otherwise caused the discharge in question." See id.: Exhibit A (Order), p. 1 ("... Teledyne conducted aerospace and electronic component manufacturing operations at the site. Due to this historical use at the site, soil and groundwater underlying the site have been affected by" various wastes.) (emphasis added).

20 The Aluminum Company of America decision also provides factors "which are appropriate for the Regional Water Boards to consider in determining whether a party should be held 21 22 secondarily liable. These include: (1) whether or not the party initiated or contributed to the 23 discharge; and (2) whether those parties who created or contributed to the discharge are proceeding with cleanup." Id. (citing decisions). Regarding the first factor, as set forth above, 24 Petitioners did not initiate or contribute to the discharge. They are passive owners who engaged 25 26 in no operations involving discharge of wastes.

27

Regarding the second factor, Teledyne, the party that caused the discharges at the 28 Property, as set forth in the Order and other evidence in the record, has entered into a Voluntary 53760-00102/2210582.4

PETITION FOR REVIEW

1 Cleanup Agreement with the Regional Board, conducted investigation work, and has expressed a 2 willingness to proceed with the additional investigation work required by the Order (as well as 3 certain contaminated soil excavation work). Exhibit E (June 13, 2013 Site Cleanup Program 4 Oversight Cost Reimbursement Account – The Panama Site, 12922 Panama Street, Los Angeles, 5 CA 90066 [SCP No. 1292], attaching Teledyne's Acknowledgement of Receipt of Oversight Cost 6 Reimbursement Account Letter) (attached to Appendix). Accordingly, both factors set forth by 7 the State Board for naming Teledyne the primary discharger and Petitioners secondary 8 dischargers are satisfied.

A review of additional State Board decisions in which a party was designated secondarily liable, including some of those cited in the *Aluminum Company of American* ruling, strongly supports such a designation here for Petitioners, if they are named dischargers at all. Like the *Aluminum Company of America* decision, these rulings involve property owners, similar to Petitioners, who neither caused nor contributed to the discharge and where, as here, there is one or more solvent dischargers who have undertaken work at the property and appear willing to continue doing so.

For example, in Petition of Prudential Insurance Company of America, Order No. WQ 16 87-6 (June 18, 1997), the State Board applied the distinction over the objection of the Regional 17 Board and ruled that "the unique facts of th[e] case (a long-term lease with little actual access 18 19 along with a cleanup that was well under way) justified putting the landowner in a position where 20 it would have no obligations under the order unless and until the other parties defaulted on their's 21 [sic]." See In the Matter of the Petitions of Wenwest, Inc., et al., Order No. 92-13 (Oct. 22, 1992), 22 pp. 7-8 (discussing *Prudential* decision). This case also involves a long-term, 57-year tenancy 23 where, as indicated above, the Petitioners' representative only visited the site approximately once 24 every five years for meetings and thus had little actual access to the property. And similarly, the investigation that is the subject of the Order is "well under way." See id. 25

There are multiple similar State Board Decisions. *See, e.g., Wenwest, Inc., supra*, pp. 7-8
(finding the current owner a secondarily liable party because "[w]hile she is the current
landowner, it is clear that she neither caused nor permitted the activity which led to the
53760-00102/2210582.4 8

PETITION FOR REVIEW

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Applying the primary/secondary distinction is also supported by controlling case law. See City of Arcadia v. State Water Res. Control Bd., 135 Cal. App. 4th 1392, 1413 (2006) (Water Code section 13267 permits a Regional Board to "require[] a polluter to furnish 'technical or monitoring program reports' ....") (emphasis added).

Accordingly, given Teledyne's responsibility for contamination at the property and Petitioners lack of such responsibility and lack of knowledge of Teledyne's operations and discharges, the Regional Board abused its discretion by naming Petitioners as primary dischargers. They instead should have been named only as secondary dischargers, it at all, responsible for compliance only if Teledyne, the appropriate primary discharger, fails to comply.

Petitioners request that the State Board hold this Petition in abevance pursuant to CCR title 23, section 2050.5(d). Petitioners reserve the right to supplement this statement of points and authorities if the event the Executive Officer or Regional Board take further action (or inaction) that necessitate Petitioners requesting the State Board to convert this petition to active status.

## 8. STATEMENT THAT THE PETITION WAS SENT TO THE REGIONAL **BOARD AND DISCHARGER**

A true and correct copy of this Petition is being sent to the Regional Board via email and 18 19 First Class Mail on July 16, 2014, to the attention of Samuel Unger, Executive Officer. A true 20 and correct copy of the correspondence reflecting the transmission is included in the Appendix as Exhibit F. In addition, a true and correct coy of this Petition is being sent to counsel for 22 Teledyne, the appropriately named discharger. A true and correct copy of the correspondence reflecting the transmission is included in the Appendix as Exhibit G.

- 23 9. 24 STATEMENT THAT ISSUES WERE RAISED BEFORE THE REGIONAL 25 BOARD, OR AN EXPLANATION WHY PETITIONER WAS UNABLE TO **RAISE SUBSTANTIVE ISSUES BEFORE THE REGIONAL BOARD** 26 27 Petitioners raised the issues addressed in this Petition with the Regional Board in letters
- 28 dated April 8, 2014 and May 16, 2014. True and correct copies of each of these letters are 53760-00102/2210582.4

1	included in the Appendix as Exhibits H and I, respectively. In addition, David Cranston, counsel		
2	for Petitioners, again raised the issues addressed in this Petition with Jeff Brooks, P.G., of the		
3	Regional Board, in a telephone call on July 15, 2014. Exhibit J, Email from David Cranston,		
4	counsel for Petitioners, to Jeff Brooks, P.G., Regional Board (attached to Appendix).		
5	10, <u>COPY OF REQUEST FOR RECORD TO THE REGIONAL BOARD</u>		
6	Petitioners request that the Petition be held in abeyance pursuant to CCR title 23, section		
7	2050.5(d) and reserve the right to request that the Regional Board prepare the record.		
8	11. <u>REQUEST FOR HEARING</u>		
9	Petitioners request that the Petition be held in abeyance pursuant to CCR title 23, section		
10	2050.5(d) and reserve the right to request a hearing.		
11	12. <u>REQUEST TO HOLD THE PETITION IN ABEYANCE</u>		
12	Petitioners request that the Petition be held in abeyance pursuant to CCR title 23, section		
13	2050.5(d).		
14	DATED: July 16, 2014 Respectfully submitted,		
15	Respectfully sublimited,		
16	GREENBERG GLUSKER FIELDS CLAMAN		
17	& MACHTINGER LLP		
18	By:		
19	DAVID E. CRANSTON BRIAN E. MOSKAL		
20	Attorneys for Defendants and Counterclaimants GGL-PAN, LLC, JAN-		
21	PAN, LLC, RON-PAN, LLC, and SCHAEFER-PAN, LLC		
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	53760-00102/2210582:4 10 PETITION FOR REVIEW		
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1		PROOF OF SERVICE	
2	I, Susan Lopez, declare:		
3	I am a citizen of the United States and employed in Los Angeles County, California. I am		
4	over the age o	of eighteen years and not a party to the within-entitled action. My business address	
5	is 1900 Aven	ue of the Stars, 21st Floor, Los Angeles, California 90067. On July 16, 2014, I	
6	served a copy	of the within document(s):	
7 8	PETI NO. R	TION FOR REVIEW OF LARWQCB INVESTIGATIVE ORDER 24-2014-0103 DATED JUNE 16, 2014	
8 9	×	by transmitting via facsimile the document(s) listed above to the fax number(s) set forth below on this date before 5:00 p.m.	
10 11	×	by placing the document(s) listed above in a sealed envelope with postage thereon fully prepaid, the United States mail at Los Angeles, California addressed as set forth below.	
12 13 14		by placing the document(s) listed above in a sealed envelope and affixing a pre-paid air bill, and causing the envelope to be delivered to a agent for delivery.	
15		by personally delivering the document(s) listed above to the person(s) at the address(es) set forth below.	
16 17	×	by transmitting via e-mail or electronic transmission the document(s) listed above to the person(s) at the e-mail address(es) set forth below.	
<ol> <li>18</li> <li>19</li> <li>20</li> <li>21</li> </ol>	State Water Resources Control Board Office of the Chief Counsel Jeannette L. Bashaw, Legal Analyst P.O. BOX 100 Sacramento, CA 95812-0100 Email: <u>jbashaw@waterboards.ca.gov</u> Fax: (916)341-5199		
22	I am readily familiar with the firm's practice of collection and processing correspondence		
23	for mailing. Under that practice it would be deposited with the U.S. Postal Service on that same		
24	day with postage thereon fully prepaid in the ordinary course of business. I am aware that on		
25	motion of the party served, service is presumed invalid if postal cancellation date or postage		
26	meter date is more than one day after date of deposit for mailing in affidavit.		
27	I decl	are under penalty of perjury under the laws of the State of California that the above	
28	is true and co	rrect.	
	53760-00102/22105	82.4 11	
		PETITION FOR REVIEW	

GREENBERG GLUSKER FIELDS CLAMAN & MACHTINGER LLP 1900 Avenue of the Stars, 21st Floor Los Angeles, California 90067-4590 I

I declare under penalty of perjury under the laws of the State of California that the above is true and correct. Executed on July 16, 2014, at Los Angeles, California. Susan Lopez GREENBERG GLUSKER FIELDS CLAMAN & MACHTINGER LLP 1900 Avenue of the Stars, 21st Floor Los Angeles, California 90067-4590 53760-00102/2210582.4 PETITION FOR REVIEW

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				202122202	
1	DAVIDE CRAN	ISTON (SBN 12255)	8)	Parties In a light	
2	DAVID E. CRANSTON (SBN 122558) <u>dcranston@greenbergglusker.com</u> BRIAN E. MOSKAL (240704)			Received	
3	bmoskal@greenbergglusker.com GREENBERG GLUSKER FIELDS CLAM.			-6 11G	
4	MACHTINGER LLP 1900 Avenue of the Stars, 21st Floor			AN & Office of the Counsel Chief Counsel	
5	Los Angeles, California 90067-4590 Telephone: (310) 553-3610 Fax: (310) 201-2368				
6	• •				
7	Attorneys for Peti GGL-Pan, LLC, J Ron-Pan, LLC, ar	an-Pan, LLC, nd Schaefer-Pan, LL(	2		
8					
9		ST	ATE C	DF CALIFORNIA	
10		STATE WATE	RES	OURCES CONTROL BOARD	
11					
12	In The Matter of t	he Petition of		Petition Number:	
13		an-Pan, LLC, Ron-P	an,	APPENDIX IN SUPPORT OF THE PETITION	
14	LLC and Schaefer-Pan, LLC,			FOR REVIEW OF LAR WQCB INVESTIGATIVE ORDER NO. R4-2014-0103 DATED JUNE 16, 2014	
15	Petitioners.			DATED JUNE 10, 2014	
16	GGL-PAN I	LC. JAN-PAN, LL	C. RO	N-PAN, LLC, AND SCHAEFER-PAN, LLC's	
17					
18		<u>APPENDIX IN SUI</u>	PPOR	<u>T OF PETITION FOR REVIEW</u>	
19	<u>EXHIBIT</u>	DATE		DESCRIPTION	
20 21	A	June 16, 2014		Los Angeles Regional Water Quality Control Board ("Regional Board") Investigative Order No. R4-2014-	
22	В	July 16, 2014	Dec	Declaration of Ronald Lushing	
23	С	July 10, 2013		ft Removal Action Work Plan, prepared by Alta	
24				ironmental for Teledyne Technologies Incorporated eledyne")	
25 26 27	D	May 16, 2013	Letter from Teledyne to the Regional Board requesting Site Cleanup Program oversight agreement and attaching preliminary property data		
20 27 28	attaching prelimin		ching preliminary property data		
		APPENDIX IN SUI	PPORT	OF THE PETITION FOR REVIEW	

1 E June 13, 2013 Site Cleanup Program Oversight Cost Reimbursement Account - The Panama Site, 12922 Panama Street, Los 2 Angeles, CA 90066 (SCP No. 1292), attaching Teledyne's Acknowledgement of Receipt of Oversight 3 Cost Reimbursement Account Letter 4 F July 16, 2014 Letter from Brian Moskal, Petitioners' counsel, to 5 Samuel Unger, Executive Officer, Regional Board, enclosing Petition and Appendix of Exhibits 6 G July 16, 2014 Letter from Brian Moskal, Petitioners' counsel, to 7 Susan Germaise and Dana Palmer, Teledyne's counsel, 8 enclosing Petition and Appendix of Exhibits 9 Ή April 8, 2014 Letter from David Cranston, Petitioners counsel, to Dr. Kwang-il Lee, Regional Board 10 GREENBERG GLUSKER FIELDS CLAMAN & MACHTINGER LLP 1900 Avenue of the Stars, 21st Floor Los Angeles, California 90067-4590 T May 16, 2014 Letter from David Cranston, Petitioners' counsel, to Dr. 11 Kwang-il Lee, Regional Board 12 J July 15, 2014 Email from David Cranston, Petitioners' counsel, to 13 Jeff Brooks, P.G., Regional Board 14 15 DATED: July 16, 2014 Respectfully submitted, 16 17 GREENBERG GLUSKER FIELDS CLAMAN & MACHTINGER LLP 18 19 By: DAVIDE. CRANSTON 20 BRIAN E. MOSKAL Attorneys for Petitioners GGL-PAN, LLC, 21 JAN-PAN, LLC, RON-PAN, LLC, and SCHAEFER-PAN, LLC 22 23 24 25 26 27 28 53760-00102/2212330.1 2 APPENDIX IN SUPPORT OF THE PETITION FOR REVIEW

# **PROOF OF SERVICE**

1 2 I, Susan Lopez, declare: 3 I am a citizen of the United States and employed in Los Angeles County, California. I am 4 over the age of eighteen years and not a party to the within-entitled action. My business address 5 is 1900 Avenue of the Stars, 21st Floor, Los Angeles, California 90067. On July 16, 2014, I 6 served a copy of the within document(s): 7 APPENDIX IN SUPPORT OF THE PETITION FOR REVIEW OF LARWOCB INVESTIGATIVE ORDER NO. R4-2014-0103 DATED 8 JUNE 16, 2014 9 by transmitting via facsimile the document(s) listed above to the fax number(s) set × 10forth below on this date before 5:00 p.m. 11 by placing the document(s) listed above in a sealed envelope with postage thereon X fully prepaid, the United States mail at Los Angeles, California addressed as set 12 forth below. 13 by placing the document(s) listed above in a sealed \_\_\_\_\_\_ envelope and 14 affixing a pre-paid air bill, and causing the envelope to be delivered to a agent for delivery. 15 by personally delivering the document(s) listed above to the person(s) at the 16 address(es) set forth below. 17by transmitting via e-mail or electronic transmission the document(s) listed above X to the person(s) at the e-mail address(es) set forth below. 18 State Water Resources Control Board 19

Office of the Chief Counsel Jeannette L. Bashaw, Legal Analyst P.O. BOX 100 Sacramento, CA 95812-0100 Email: jbashaw@waterboards.ca.gov Fax: (916)341-5199

I am readily familiar with the firm's practice of collection and processing correspondence 23 for mailing. Under that practice it would be deposited with the U.S. Postal Service on that same 24 day with postage thereon fully prepaid in the ordinary course of business. I am aware that on 25 motion of the party served, service is presumed invalid if postal cancellation date or postage 26

- meter date is more than one day after date of deposit for mailing in affidavit. 27
- 28

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**GREENBERG GLUSKER FIELDS CLAMAN** 

& MACHTINGER LLP

1900 Avenue of the Stars, 21st Floor Los Angeles, California 90067-4590

53760-00102/2212330.1

I declare under penalty of perjury under the laws of the State of California that the above is true and correct. Executed on July 16, 2014, at Los Angeles, California. Susan Lopez t 1 1900 Avenue of the Stars, 21st Floor Los Angeles, California 90067-4590 53760-00102/2212330.1 APPENDIX IN SUPPORT OF THE PETITION FOR REVIEW

GREENBERG GLUSKER FIELDS CLAMÁN & MACHTINGER LLP

# **EXHIBIT** A





ATTHEW ROD

Los Angeles Regional Water Quality Control Board

June 16, 2014

Teledyne Technologies, Inc. C/O Dana Palmer, Esq. McGuire Woods, LLP 1800 Century Park East, 8th Floor Los Angeles, CA 90067

Ron Pan, LLC: GGL Pan, LLC; Jan Pan, LLC; & Schaefer Pan, LLC C/O David E. Cranston, Esq. Greenberg, Glusker, Fields, Claman, & Machtinger, LLP 1900 Avenue of the Stars, 21<sup>st</sup> Floor Los Angeles, CA 90067

CERTIFIED MAIL RETURN RECEIPT REOUESTED 7001 0360 0000 3649 3187

CERTIFIED MAIL RETURN RECEIPT REQUESTED 7001 0360 0000 3649 3194

#### SUBJECT: **REQUIREMENT FOR TECHNICAL REPORTS PURSUANT TO** CALIFORNIA WATER CODE SECTION 13267 ORDER

#### SITE: 12908, 12910, 12918, 12920, 12922, 12930, 12950, & 12964 PANAMA STREET, LOS ANGELES, CALIFORNIA 90066 (Site No. ID 2040430, SCP No. 1292)

### Dear: Messrs. Palmer and Cranston:

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is the State regulatory agency responsible for protecting water quality in Los Angeles and Ventura Counties. To accomplish this, the Regional Board issues investigative orders authorized by the Porter-Cologne Water Quality Control Act (California Water Code [CWC], Division 7). The Regional Board has reviewed the draft 2013 site assessment report and draft 2013 removal action work plan for the Panama Site property at 12908, 12910, 12918, 12920, 12922, 12930, 12950, & 12964 Panama Street, Los Angles, California 90066 (Site Cleanup Program Number 1268) and determined that soils and groundwater have been impacted by chlorinated solvents including tetrachloroethene (PCE) and trichloroethene (TCE) and Title 22 metals including antimony, arsenic, cadmium, chromium, nickel, and selenium.

CHARLES STRUCTURE A, CHART | SAMUEL UNGER, EXECUTIVE OFFICER

320 West 4th St., Sulte 200, Los Angales, CA 90013 | www.waterboards.ca.gov/losangales

C. REGISLES PAPER

Teledyne and Ron Pan, LLC et al. Panama Site SCP No. 1292

Enclosed is a Regional Board Order (Order) requiring submittal of technical reports and work plans, pursuant to CWC section 13267, documenting the current conditions of the site, and all previous site assessment and remediation work performed at the site.

As of November 1, 2011, the Regional Board has implemented a paperless office system to reduce our paper use, increase efficiency, and provide a more effective way for our staff, the public and interested parties to view water quality documents in electronic form. Please submit an electronic copy of the required technical reports into the Regional Boards online document portal, GeoTracker. The Panama site is listed in GeoTracker under Global Identification Number 2040430. Should there be any oversize documents, please submit a paper copy of the oversize pages to the Regional Board.

If you have any questions regarding this project, please contact Mr. Jeff Brooks at (213) 620-6070 or Jeff.Brooks@waterboards.ca.gov, or Unit Chief, Dr. Kwang-il Lee at (213) 576-6734 or Kwangil.Lee@waterboards.ca.gov.

Sincerely,

Samuel Unger, PE

Executive Officer

Enclosure:

CWC Section 13267 Order No. R4-2014-0103

Cc:

Melanie S. Cibik, Esq., Teledyne (via email only) Brian E. Moskal, Esq., Greenberg Glusker, LLP (via email only) Caroline Heindel, Esq., Greenberg GLucker, LLP (via email only) Perry Hughes, Esq., Cox, Castle and Nicholson (via email only) Ira Waldman, Esq., Cox, Castle and Nicholson (via email only) Mike Cassidy, Alta Environmental (via email only)





Los Angeles Regional Water Quality Control Board

## ORDER TO PROVIDE A TECHNICAL OR MONITORING REPORT ON

### INVESTIGATIVE ORDER NO. R4-2014-0103

# CALIFORNIA WATER CODE SECTION 13267 DIRECTED TO TELEDYNE TECHNOLOGIES, INCORPORATED; AND RON PAN, LLC; GGL PAN, LLC; JAN PAN, LLC; & SCHAEFER PAN, LLC

#### PANAMA SITE

## 12908, 12910, 12918, 12920, 12922, 12930, 12950, & 12964 PANAMA STREET, LOS ANGELES, CALIFORNIA 90066 [SITE ID NO. 2040430, CASE NO. 1292]

The Regional Water Quality Control Board, Los Angeles Region (Regional Board) makes the following findings and issues this Order pursuant to California Water Code section 13267.

- 1. Teledyne Technologies, Inc. (Teledyne) facilities have operated at the approximately 5.7 acresite in the City of Los Angeles under lease as a tenant from the early 1960's until approximately late 2013. The property is bounded by Panama Street and a residential neighborhood to the northwest, Beethoven Street and commercial property to the northeast, Culver Boulevard and commercial property to the southeast, and Alla Road, commercial property and the Marina Freeway followed by open space and Ballona Creek to the southwest. During their occupancy of the property, Teledyne conducted aerospace and electronic component manufacturing operations at the site. Due to this historical use at the site, soil and groundwater underlying the site have been affected by volatile organic compounds (VOCs) including tetrachloroethene (PCE) and trichloroethene (TCE), and Title 22 metals including antimony, arsenic, cadmium, chromium, nickel, and selenium.
- 2. California Water Code section 13267(b)(1) states, in part: In conducting an investigation. . ., the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or, discharging, or who proposes to discharge waste within its region . . . shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation

CHARLES STRINGER, CHAR | SAMUEL UNDER, EXECUTIVE OFFICER

320 West 4in St., Suite 200, Los Angeles, CA 90019 | www.waterpon/ds.ca.gov/tosangetes -

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Teledyne & Ron Pan, LLC, et al. Panama Site SCP No. 1292

with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

- 3. The Regional Board has evidence in preliminary data submissions, a draft site assessment summary report, and a draft removal action work plan indicating that there has been a discharge of waste from the site. The evidence supporting this requirement includes documentation of PCE in soil at concentrations of up to 40.6 milligrams per kilogram (mg/kg), PCE in soil gas at concentrations of up to 6,400 micrograms per liter (µg/L), PCE in groundwater at concentrations of up to 120 µg/L, and Title 22 metals (antimony, arsenic, cadmium, chromium, nickel, and selenium) in groundwater at concentrations that exceed California Maximum Contaminant Levels (MCLs).
- 4. This Order identifies Teledyne and Ron Pan, LLC, et al. as the parties responsible for the discharges of waste identified in paragraph 3, because you leased/operated (Teledyne) and owned (Ron Pan, LLC et al.) the property on which the waste has been discharged.
- 5. This Order requires the parties named herein to prepare and submit technical and/or monitoring reports to describe the full lateral and vertical extent of affected environmental media (soil, soil gas, and groundwater) and to propose plans to remediate the affected environmental media as needed to acceptable regulatory standards. You are expected to submit a complete report or reports as required by this Order. The Regional Board may reject the report if not complete, or require revisions to the report without issuing a new Order.
- 6. The Regional Board needs this information in order to determine the magnitude of potential risks to human health (including an adjacent residential neighborhood) and impacts to the environment and to help manage these potential risks and impacts.
- 7. The burdens, including costs, of these reports and work plans bear a reasonable relationship to the need for the reports and work plans and the benefits to be obtained from the reports and work plans. The information is necessary to better characterize and define the extent of the soil and groundwater contamination and assure cleanup of the site which poses significant threats to public health and the environment. The technical report and work plan required by this Order are believed to cause you to incur reasonable costs. The information to be obtained from the report and work plan is vital for site assessment and cleanup.
- 8. The issuance of this Order is an enforcement action by a regulatory agency and is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to section 15321(a)(2), Chapter 3, Title 14 of the California Code of Regulations. This Order requires submittal of technical and/or monitoring reports and work plans. The proposed activities under the work plans may include soil removal action(s) and other activities that are not yet known. It is unlikely that implementation of the work plans associated with this Order could result in anything more than minor physical changes to the environment. If the implementation may result in significant impacts on the environment,

Teledyne & Ron Pan, LLC, et al. Panama Site SCP No. 1292

the appropriate lead agency will address the CEQA requirements prior to approval of any work plan.

9. Any person aggrieved by this action of the Regional Water Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public notices/petitions/water quality or will be provided upon request.

**THEREFORE, IT IS HEREBY ORDERED** that Teledyne and Ron Pan, LLC et al., pursuant to section 13267(b) of the California Water Code, are required to submit the following:

- 1. By August 15, 2014, submit a site assessment summary report that describes all site assessment activities completed to date to complete the delineation of the horizontal and vertical extent of affected soil, soil gas, and groundwater. The report shall at a minimum include iso-concentration diagrams of constituents of potential concern (COPCs) that exceed applicable regulatory screening levels, geologic cross-sections, and recommendations for further work to fully delineate the lateral and vertical extent of affected soil, soil gas, and groundwater to applicable regulatory standards.
- 2. By August 30, 2014, submit a work plan to complete the delineation of the horizontal and vertical extent of affected soil, soil gas, and groundwater.

The above item shall be submitted as a PDF via email or disk (CD-ROM or CD) to Mr. Jeff Brooks, 320 West 4<sup>th</sup> Street, Suite 200, Los Angeles, CA 90013-2343, Jeff.Brooks@waterboards.ca.gov, (213) 620-6070, and submitted by you under penalty of perjury under the laws of the State of California in accordance with the following paragraph.

The technical report and work plan are required to be submitted under the Water Code section 13267 Order. Pursuant to Water Code section 13267(a), any person who fails to submit reports in accordance with the Order is guilty of a misdemeanor. Pursuant to Water Code section 13268(b)(1), failure to submit the required technical report described above by the specified due date(s) may result in the imposition of administrative civil liability by the Regional Board in an amount up to one thousand dollars (\$1,000) per day for each day the technical report or work plan is not received after the above due date. These civil liabilities may be assessed by the Regional Board for failure to comply, beginning with the date that the violations first occurred, and without further warning.

Teledyne & Ron Pan, LLC, et al. Panama Site SCP No. 1292

The Regional Board, under the authority given by Water Code (CWC) section 13267(b)(1), requires you to include a perjury statement in all reports submitted under the 13267 Order. The perjury statement shall be signed by a senior authorized Teledyne and Ron Pan, LLC et al. representatives (not by a consultant). The perjury statement shall be in the following format:

"I, [NAME], certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision, in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations,"

The State Water Board adopted regulations requiring the electronic submittals of information over the internet using the State Water Board GeoTracker data management system. You are required not only to submit the reports/work plans required in this Order, but also to comply by uploading all reports and correspondence prepared to date on to the GeoTracker data management system. The text of the regulations can be found at the URL:

http://www.waterboards.ca.gov/water issues/programs/ust/electronic submittal/

SO ORDERED.

Samuel Unger, P.E.

Executive Officer

# EXHIBIT B

GREENBERG GLUSKER FIELDS CLAMAN & MACHTINGER LLP 1900 Avenue of the Siars, 21st Floor Los Augeles, California 90067-4590 2

,

1	DAVID E. CRANSTON (SBN 122558)	· · · ·		
2	deranston@greenbergglusker.com BRIAN E. MOSKAL (240704)			
3	bmoskal@greenbergglusker.com GREENBERG GLUSKER FIELDS CLAMAN &			
4	MACHTINGER LLP 1900 Avenue of the Stars, 21st Floor			
5	Los Angeles, California 90067-4590 Telephone: 310.553.3610			
6	Fax: 310.201.2368			
. 7	Allomeys for Petitioners GGL-Pan, LLC, Jan-Pan, LLC,			
8	Ron-Pan, LLC, and Schaefer-Pan, LLC			
9	STATE C	PF CALIFORNIA		
10	STATE WATER RES	DURCES CONTROL BOARD		
11				
12	In The Matter of the Petition of	Petition Number:		
13	GGL-Pan, LLC, Jan-Pan, LLC, Ron-Pan, LLC and Schaefer-Pan, LLC,	DECLARATIONOF RONALD S. LUSHING		
14	Petitioners.	IN SUPPORT OF PETITION FOR REVIEW OF LARWQCB INVESTIGATIVE ORDER		
15	rennoners,	NO. R4-2014-0103 DATED JUNE 16, 2014		
16				
17	DECLARATION OF RONALD S. LUSHING			
18	I, Ronald S. Lushing, declare:			
19	1. I am the trustee of the Ronald	S. Lushing Trust, which is the sole member of Ron-		
20	Pan, LLC. Ron-Pan, LLC is one of the four of	owners who own the property located at 12908-		
21	12964 Panama Street in Los Angeles, California ("Property"), which is the subject of the			
22	California Regional Water Quality Control Board, Los Angeles Region's Investigative Order No.			
23	R4-2014-0103 dated June 16, 2014 ("Order"). These four owners are Petitioners in this Petition.			
24	2. Petitioners are a set of family-	owned and operated companies whose family has		
25	owned the Property for generations.			
26	3. I am also the manager of the Property and have been its manager since 1961. That			
27	role has primarily involved handling lease neg	gotiations and related issues with respect to long-		
28	time Property tenant Teledyne Technologies I	(ncorporated ("Teledyne").		
	53760-00102/2212331,2			
ļ	DECLARATION OF RONALD S. LUSHING IN SUPPORT OF PETITION FOR REVIEW			

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4. In performing my role as manager, I visited the Property approximately once every five years, chiefly to attend meetings with Teledyne representatives to attend to lease-related matters. I did not inspect Property operations during these visits until near the end of Teledyne's lease term.

5. Based on my roles with respect to the Property, including discussions with the other Petitioners about the Property, I have personal knowledge of the other Petitioners' familiarity, or lack thereof, with the Property and Teledyne's operations at the Property.

6. Neither I nor, upon information and belief, the other Petitioners or Petitioners' predecessors-in-interest to the Property, have never engaged in any operations at the Property associated with wastes, including discharge of wastes.

7. I and, upon information and belief the other Petitioners, had no knowledge that Teledyne's operations at the Property could result in the discharge of waste at the Property.

8. I knew Teledyne was producing a product at the property, but until near the end of Teledyne's lease term. I knew nothing more specific, including the nature of Teledyne's operations, the substances it used, the process and other wastes it generated, how Teledyne disposed of those wastes, or that Teledyne's operations caused releases of wastes to the property and its subsurface. Upon information and belief, none of the other Petitioners had such knowledge any earlier than me.

9. The facts set forth herein are of my own personal knowledge and if sworn I could
and would testify competently thereto under oath.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed on July 16, 2014 at Santa Fe, New Mexico.

Ronald S. Lushing

53760-00102/2212331.2

. . .

DECLARATION OF RONALD S. LUSHING IN SUPPORT OF PETITION FOR REVIEW

# EXHIBIT C



# REMOVAL ACTION WORK PLAN

Panama Street Site 12922 Panama Street Los Angeles, California 90066

Prepared for

Teledyne Microelectronic Technologies

MCGU-13-2252 July 10, 2013

Alta Environmental 3777 Long Beach Boulevard, Annex Building Long Beach, CA 90807 www.altaenviron.com

# **REMOVAL ACTION WORKPLAN – DISCUSSION DRAFT**

Jonathan Barkman Project Manàger/Senior I

Steven R. Ridenour, PG Senior Project Manager/Senior Geologist III

Mike Cassidy, PG, CHG Vice President-Site Assessment and Remediation Branch Manager-Irvine Office

Alta Environmental MCGU-13-2252 July 9, 2013

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Alta Environmental MCGU-13-2252 July 9, 2013

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Appendix A

Health and Safety Plan (HASP)

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Alta Environmental MCGU-13-2252 July 9, 2013 Removal Action Plan - Discussion Draft

Project Site	Panama Street Site
Project Proponent	Teledyne Microelectronic Technologies
Property Owner	Ron-Pan LLC, GGL-Pan LLC, Jan-Pan LLC, and Schaefer-Pan LLC
Chemicals of Concern (COCs)	Benzene, PCE, TCE, cis 1,2-DCE, trans-1,2-DCE, 1,1-DCA, 1,1-DCE, 1,2-dichlorobenzene
Clean Up Goals	Benzene: 4.0 – 6.1 micrograms per kilogram (µg/kg) PCE: 20 – 30.5 µg/kg TCE: 20 – 30.5 µg/kg cis-1,2 DCE: 24 – 36.6 ug/kg trans-1,2-DCE: 40 – 61 µg/kg 1,1-DCA: 20 – 30.5 µg/kg 1,1-DCE: 24 – 36.6 µg/kg 1,2-dichlorobenzene: 2,400 – 3,660 µg/kg
Estimated Volume of Soil Removal	6,600 cubic yards

# 1. INTRODUCTION

The Site is herein defined as 12964, 12950, 12930, 12922, 12918, 12910, and 12908 Panama Street, Los Angeles, California. After several decades of occupancy, the Site tenant is vacating the property. The target goal for returning the property to the property owner is July 31, 2013.

On behalf of the property owner, Environ International Corporation (Environ) conducted a Phase I Environmental Site Assessment (ESA) of the site in January, 2013 (Environ, Phase I Environmental Site Assessment, Teledyne Electronic Technologies, January 2013 Draft). The Phase I ESA identified past and current property uses as recognized environmental conditions and recommended additional assessment. Based on this recommendation, Alta Environmental LP (Alta), on behalf of the tenant, has been conducting a follow-up Rhase II ESA to determine the nature and extent of any impacts to soil, soil gas, and groundwater at the site. Results of the site assessment activities have indicated the presence of chemicals of concern (COCs) in the soil, groundwater, and soil gas beneath the site. A report of these activities is in progress.

# 1.1 Removal Action Objectives

The proposed action at the Site focuses on the removal and disposal of the majority of soils impacted with the volatile organic compound (VOC) COCs identified during the site assessment activities. Excavation was determined to be the preferred remedial action (RA) remedy based on the limited time frame, shallow groundwater, and accessibility to the majority of the identified impacted soil.

Removal Action Objectives (RAOs) have been established; these RAOs are presented below:

- Minimize exposure of humans to the COCs in shallow soil through inhalation, dermal absorption, and ingestion;
- Minimize potential for migration of the COCs from the shallow soil to other media; and

Alta Environmental MCGU-13-2252 July 10, 2013

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Removal Action Plan - Discussion Draft

• Remove the majority of accessible impacted soils that exceed the calculated Soil Screening Levels (SSLs)

The remedial goals developed and adopted for contaminated media at the Site will be responsive to these RAOs.

# 2. SITE INFORMATION

#### 2.1 Site Location

The subject site is the property located at 12964, 12950, 12930, 12922, 12918, 12910, and 12908 Panama Street in Los Angeles, California. A Site Vicinity Map is presented as Figure 1 and the Site Assessor Parcel Map is identified on Figure 2.

#### 2.1.1 Site Name, Address and Size

The Site Name: Panama Street Site

The Site Address: 12964, 12950, 12930, 12922, 12918, 12910, and 12908 Panama Street Los Angeles, California.

The Site size: approximately 5.73 acres

## 2.1.2 Mailing address and Telephone Number

For the purposes of this RAW, the general contact for information is as follows:

Dana P. Palmer, Esq.

McGuireWoods LLP

1800 Century Park East

8<sup>th</sup> Floor

Los Angeles, CA 90067

Telephone (310) 956-3445

2.1.3 EPA Identification Number

The EPA identification (EPA ID) number for the Site is CAD009587700. This number will be used for the generation, transportation, and offsite disposal of wastes excavated from the Site, as applicable.

## 2.1.4 Assessor's Parcel Number(s) and Maps

The assessor's parcel numbers (APNs) for the site are reportedly 4223-008-008, 4223-008-007, 4223-008-006, 4223-008-005, and 4223-008-010.

#### 2.1.5 Ownership

The Site is owned by Ron-Pan LLC, GGL-Pan LLC, Jan-Pan LLC, and Schaefer-Pan LLC (Environ, Phase I Environmental Site Assessment Draft January 2013).

### 2.2 Operational History and Status

The historical property uses of the Site were partially described in the Phase I ESA (Environ, January 2013 Draft). Environ states that the site has been used for various industrial purposes since the late 1950s. Prior operations have included a print shop and several electronic manufacturing companies in various buildings at the site including Quantatron (located at 12908 Panama Street); Chem-Seal Corporation of America from the late 1950s until the late 1960s, Banner Printing Co. from the early 1970s

Alta Environmental MCGU-13-2252 July 10, 2013

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## Removal Action Plan - Discussion Draft

until the early 1980s, and Teledyne from the early 1980s until present (all located at 12910 Panama Street). Environ also states that Arrous Corp. Electrical Equipment Manufacturing was present at the site from the late 1950s until the mid-1960s, UED Aerospace Division of Teledyne Inc, from the mid-1960s until present (both located at 12964 Panama Street); and Teledyne from the mid-1960s until present (located at 12918 Panama Street). Environ also states that Teledyne began manufacturing operations in most of the site buildings (12908, 12918, 12930, and 12964 Panama Street) in the mid-1960s, and subsequently occupied 12922 and 12910 Panama Street buildings in the late 1970s and early 1980s, respectively (Environ, Phase I Draft, January 2013). Environ states that these former industrial operations have included the use of solvents, paints, and other chemicals.

The Draft Environ Phase I indicated that based on their review of Environmental Data Resources databases and a review of agency records, spill incidents occurred at the site between 1985 and 2009. Manufacturing operations at the site have ceased although some Teledyne personnel remain on site.

Beyond the basic Phase I identification of former operations and tenants, a full investigation of the property history is ongoing and no conclusions can be drawn at this time either as to owner or tenant liability. While Teledyne is working voluntarily with the Regional Board, Teledyne reserves all rights to pursue remedies against all parties bearing responsibility for the contamination.

### 2.3 Topography

The topography ranges from approximately 15 feet above mean sea level (amsl) near the northnortheastern corner to 14 feet amsl near the southern-southwestern boundary.

## 2.4 Geology and Hydrogeology

The Site geology and hydrogeology were obtained from the Phase I ESA (Converse, 2011a) and updated based on the Step-out Soil Sampling Report (Alta, 2012).

## 2.4.1 Site Geology and Soil Types

Soils encountered during Alta's assessment of the site were predominantly clay with localized lenses of silt and sand to 10 feet bgs, underlain by alternating sequences of clay and sand to total depths explored (21 feet bgs).

# 2.4.2 Site Hydrogeologic Setting

The Site is situated at the southern boundary of the Santa Monica Basin. The depth to the uppermost groundwater during Alta's assessment was encountered at approximately 10.5 to 12.5 feet bgs. The groundwater flow direction of the uppermost groundwater zone was calculated to be to the west-southwest at a gradient of 0.0040 foot per foot.

# 2.5 Surrounding Land Use and Sensitive Ecosystems

The properties surrounding the Site are developed with a mix of residential and commercial properties. The Site is bound by a storage facility and Culver Boulevard to the south and east, Alla Road and the Marina Freeway (Highway 90) to the west, Panama Street followed by residences to the north and northwest, and a property owned by Teledyne Technologies Incorporated to the east. The nearest surface water body to the Site is Ballona Creek, located approximately 1,246 feet southeast of the Site.

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# 2.6 Previous Site Investigations

# 2.6.1 Phase | Environmental Site Assessment - Environ

Environ completed a draft Phase I ESA report in January 2013. The assessment identified the following evidence of recognized environmental conditions (RECs) in connection with the Site:

Former release of TCE.<sup>1</sup> Based on a review of the Los Angeles County Public Health Investigator records, a 55-gallon drum containing TCE was ruptured in April 1985 at the 12964 Panama Street address. No information was given about the amount of TCE that was spilled and no specifics were provided in the record regarding the exact location of the spill. As quoted in the Environ report, "the spill of TCE was diked, absorbed, and picked up".

Although not considered RECs, Environ identified the following other findings:

- 1. Historical operations at the site;
- 2. Former use of chlorinated solvents;
- 3. Former clarifier without closure documentation; and
- 4. Presence of trenches and sumps.

## 2.6.2 Phase II Environmental Site Assessment - Alta

Alta has conducted several ongoing phases of soil, soil gas, and groundwater assessment at the site. During the course of the assessment, a total of 89 borings were advanced to various terminus depths, ranging from 5-feet below ground surface (bgs) to 20-feet bgs. Soil, soil-vapor, and ground water samples were variously collected from each of the borings, as summarized below.

#### Soil:

A total of 52 soil borings were advanced at the site. Depending on boring terminus depth, soil samples were collected at 2.5, 5, 10, 15, and 20 feet bgs. Various sample intervals were analyzed for Title 22 Metals by EPA Method 6010B, Total Petroleum Hydrocarbons by EPA Method 8015M, VOCs by EPA Method 8260B/5035, 1,4-Dioxane by EPA Method 8270, and Hexavalent Chromium by EPA Method 7199.

For all samples analyzed, Alta identified the following:

- Concentrations of Title 22 Metals were reported below San Francisco Bay Regional Water Quality Control Board 2013 Tier 1 Environmental Screening Levels, with the exception of arsenic (Table 3);
- No detectable concentrations of TPH reported above laboratory Practical Quantitation Limits (PQLs) (Table 4); and

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<sup>&</sup>lt;sup>1</sup> According to Teledyne personnel, there is no record of Teledyne having used TCE at the Site and the records cited in the Environ Phase I likely incorrectly characterize the spill. Investigation of the use of TCE by the property owner or other tenants is ongoing. As TCE was widely used in the era prior to Teledyne's leasing the Site more than fifty years ago, Teledyne anticipates that the investigation may take significant time.

• Concentrations of PCE, TCE, benzene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, and 1,1dichloroethane were reported above site-specific soil screening levels developed based on the Los Angeles Regional Water Quality Control Board Attenuation Factor Method (Table 2).

Figure 6 depicts the identified distribution of soil-matrix VOC concentrations. Tables 5 presents a summary of the soil-matrix VOC concentrations.

#### Soil Gas:

A total of 57 soil-vapor wells were installed at the site (Figure 3). Of these, 55 were installed as dualnested wells and two were installed as single wells. Vapor points within the dual-nested wells were emplaced at either 4 and 8 feet bgs, or at 5 and 10 feet bgs, depending on lithology. The two single soilvapor wells had vapor points installed at 5 feet bgs. For all samples analyzed, concentrations of VOCs in soil-vapor were reported below 2010 California Human Health Screening Levels for industrial properties, with the exception of cis-1,2-dichloroethene, PCE, TCE, and vinyl chloride.

Figure 7 depicts the identified distribution of soil-vapor VOC concentrations and Table 6 summarizes the laboratory analytical results.

#### Groundwater:

A total 22 groundwater hydro-punch borings (Figure 3) were advanced at the site. All locations were sampled for VOCs by EPA Method 8260, TPH by EPA Method 8015M and Title 22 Metals by EPA Method 6010.

Three groundwater monitoring wells (GW1 through GW3, Figure 3) were installed at the southern, southwestern, and northern portions of the Site. The borings for the wells were drilled to 20.5 to 21.5 feet bgs, using a hollow-stem auger rig equipped with 10-inch-diameter augers. The wells were installed with 4-inch-diameter PVC blank and 0.01-inch screened sections, with the screened intervals installed from 5 to 20 feet bgs. The annular space around the screened sections was backfilled with No. 2/12 Monterey sand filter to approximately two feet above the top of the screened section. The sand filter was then surged and the remainder of the annular space was backfilled with hydrated bentonite chips. The wells were then developed using a rig bailer and surge block. Well development continued until at least 5 well volumes were removed and the removed groundwater was visually clear. The wells were completed with the installation of traffic-rated well boxes installed at the surface.

Alta identified the following

- Concentrations of Title 22 Metals were reported below California Department of Public Health Maximum Contaminant Levels, with the exception of antimony, arsenic, barium, cadmium, nickel, and selenium (Table 7);
- No detectable concentrations of TPH reported above laboratory PQL (Table 8);
- Concentrations of VOCs were reported below Department of Public Health Maximum Contaminant Levels, with the exception of 1,1-dichloroethane, cis-1,1-dichloroethene, PCE, and TCE (Table 9);
- Depth to water across the site ranges from approximately 10.5 feet bgs in the north to 12.5 feet bgs in the southwest; and
- Groundwater gradient during the assessment was approximately 0.004 foot per foot to the westsouthwest (Figure 5).

Alta Environmenta MCGU-13-2252 July 10, 2013 Figure 8 depicts the identified distribution of ground water VOC concentrations and Table 9 summarizes the groundwater VOC laboratory analytical results.

# 3. NATURE, SOURCE AND EXTENT OF CHEMICALS OF CONCERN

#### 3.1 Shallow Soil

Soil samples were collected from the site and analyzed for metals, TPH, and VOCs. The nature and extent of the VOC COCs are summarized in the following subsections.

#### 3.1.1 COCs in Shallow Soil

Alta Environmental calculated Soil Screening Levels (SSLs) for benzene, PCE, TCE, cis-1,2dichloroethene (DCE), 1,1-dichloroethane, 1,2-dichlorobenzene, 1,1-dichloroethene (1,1-DCE), and trans-1,2-dichloroethene detected in soil samples collected from the subject site. The SSLs were calculated using the Attenuation Factor (AF) Method for VOCs found in Chapter 5 and Appendix A of the LARWQCB May 1996 Interim Site Assessment and Cleanup Guidebook (Guidebook). The calculated AFs and SSLs are presented on Table 1.

The AFs and SSLs were calculated for samples collected at 2.5, 5.0, and 10 feet bgs from borings where laboratory analytical results indicated VOC detections above detection limits. The AFs for the sampled depths were determined using Table 5-1 of the Guidebook (or Table 4 of Appendix A of the Guidebook). The AFs were based on the vertical distance from the point of VOC detection to the groundwater table encountered at approximately 11.5 feet bgs, and on the average lithological thicknesses of clay, silt, and sand in all borings where VOCs were detected, expressed as a percentage of each, from the point of VOC detection to the groundwater table.

As indicated on Table 1, the depth below ground surface, distance above the groundwater table, and the average lithological percentages of the entire values zone from the sampling depth to the groundwater table are shown. Using Table 5-1 of the Guidebook, the AFs for the associated sampling depth were calculated and recorded in the AF column of Table 1. The SSLs at each depth for each selected VOC were then calculated and recorded into the table by multiplying the AFs by the California Department of Public Health Maximum Contaminant Levels (MCLs) for the each VOC.

As indicated on Table 2, the SSLs for each VOC were inputted and compared to each sample with detectable VOC concentrations. Concentrations which exceed the calculated SSLs are highlighted on Table 2.

Figure 6 shows the maximum VOCs detected in soil matrix for the purposes of determining the optimal areas for remediation by excavation.

#### 3.2 Extent and Volume of Soil Removal

Based on the data collected during the Alta Phase II investigation, it is estimated that elevated COC concentrations are limited to the identified areas (Figure 9). The lateral and vertical extent of COC contamination above the cleanup goals are shown on the above-referenced figures.

The estimated volumes of impacted soil at the site are approximately 6,600 cubic yards (9,900 tons).

#### 3.3 Health Effects of Chemicals of Concern

PCE (CAS #127-18-4) is a nonflammable solvent which was popular in the dry cleaning industry due to its ability to dissolve organic material. It is a clear liquid with a slightly sweet odor. This volatile organic compound is highly stable and had multiple uses in the automotive and metalworking industries.

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Exposures through inhalation, skin absorption, skin and or eye contact, and ingestion negatively affect humans. PCE affects the central nervous system and ingestion can cause dizziness, headache, sleepiness, confusion, nausea, difficulty in speaking and walking, unconsciousness, and death. Dermal contact can also irritate skin.

TCE (CAS #79-01-6) is a clear, nonflammable liquid commonly used as an organic solvent. Like PCE, it was popular in the dry cleaning industry as well as the food, medical, automotive, and metal working industries. Exposures through inhalation, skin absorption, skin and or eye contact, and ingestion negatively affect humans. TCE negatively affects the central nervous system and ingestion can cause dizziness, headache, sleepiness, confusion, nausea, difficulty in speaking and walking, unconsciousness, kidney failure, liver failure, and death. Dermal contact can also irritate skin.

1,2-DCE (CAS #156-59-2 for cis, CAS #156-60-5 for trans) is a colorless, highly flammable liquid used in solvents or in the production of vinyl chloride. It has a harsh odor and is volatile. Exposures through inhalation, skin absorption, skin and or eye contact, and ingestion negatively affect humans. Inhalation can induce effects on the human nervous system, liver, and kidneys, as well as respiratory distress, cardiac arrhythmia, nausea, and vomiting. Chronic (long-term) inhalation exposure produced effects on the liver and kidneys in animals.

Benzene (CAS #71-43-2) is a colorless, flammable liquid with a sweet odor. Benzene is among the 20 most widely used chemicals in the United States. It is used mainly as a solvent (a substance that can dissolve or extract other substances) and as a starting material in making other chemicals. In the past it was also commonly used as a gasoline additive, but this use has been greatly reduced in recent decades. Benzene is also a natural part of crude oil, gasoline, and cigarette smoke. Exposures through inhalation, skin absorption, skin and or eye contact, and ingestion negatively affect humans. Breathing in high doses of benzene may affect the central nervous system, which can lead to drowsiness, dizziness, headaches, tremors, confusion, and/or unconsciousness. Consuming foods or fluids contaminated with high levels of benzene can cause vomiting, stomach irritation, dizziness, sleepiness, convulsions, and rapid heart rate. In extreme cases, deathing occur after inhaling or swallowing very high levels of benzene to benzene liquid or vapor may irritate the skin, eyes, and throat. Skin exposure to benzene may result in redness and blisters. Long term exposure can result in Anemia (low red blood cell count), low white blood cell count, low blood platelet count, harm to reproductive organs, and other reproductive harm.

1,1-DCA (CAS #75-34-3) is a colorless, oily liquid which is very volatile and has an odor similar to chloroform. Due to the oily properties, it is not as soluble with water as other organic solvents. Also known as Ethylidene dichloride, 1,1-DCA is primarily used as an intermediate in the manufacture of other chemicals such as vinyl chloride and 1,1,1-trichloroethane, and to manufacture high vacuum rubber. It also has limited use as a solvent for plastics, oils, and fats. In the past, it was used as an anesthetic, but that use has been discontinued. Exposures through inhalation, skin absorption, skin and or eye contact, and ingestion negatively affect humans. Acute inhalation exposure to high levels (105,000 milligrams per cubic meter [mg/m3]) results in CNS depression and a cardiostimulatory effect, resulting in cardiac arrhythmias. Acute dermal exposure can cause skin burns, scaliness, or rashes.

1,1-DCE (CAS #75-35-4) is a colorless liquid with a mild sweet odor resembling that of chloroform. Like most chlorocarbons, it is poorly soluble in water, but soluble in organic solvents. 1,1-DCE is used as an intermediate for organic chemical synthesis. It is also used in the production of polyvinylidene chloride copolymers. The major application of these chloride copolymers is in the production of flexible films for food packaging (SARAN® and VELON® wraps). These copolymers are also used extensively in many

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types of packing materials, as flame retardant coatings for fiber and carpet backing and in piping, coating for steel pipes, and adhesive applications. Exposures through inhalation, skin absorption, skin and or eye contact, and ingestion negatively affect humans. Inhalation can induce adverse neurological effects including CNS depression and symptoms of inebriation, convulsions, spasms, and unconsciousness, and respiratory effects, such as inflammation of mucous membranes. Chronic effects on exposure to 1,1-DCE include effects on the liver, kidneys, CNS, and lungs.

1,2-dichlorobenzene (CAS #95-50-1) is a colorless liquid with a pleasant odor. It was used as an intermediate in the synthesis of agrochemicals due to its high boiling point. Exposures through inhalation, skin absorption, skin and or eye contact, and ingestion negatively affect humans. Exposure can cause headache, nausea, irritation of the nose and throat, dizziness, and lightheadedness. Dermal contact may cause skin irritation. Chronic effects on exposure to 1,2-dichlorobenzene include effects on the liver, kidneys, CNS, and lungs.

### 4. SITE CLEANUP GOALS

This section presents information regarding the cleanup goals for the identified accessible COCs in soil that can be excavated from the site. Figure 9 shows the preliminary excavation plan.

#### 4.1 Excavation Cleanup Goals

COCs for this Site soils are VOCs. A summary of the COCs, minimum and maximum detected concentrations at 2.5, 5, and 10 feet bgs, cleanup goals at each of these depths, and the rationale are presented in Table 10. The cleanup goals are based on use of the Attenuation Factor (AF) Method, using Table 5-1 of 1996 RWQCB Guidance Document.

#### 4.2 Removal Action Scope

This RAW outlines the remedy for the COCs at the Site. It is prepared to address the accessible VOCs in soil above cleanup goals that can be practically excavated at the Site. The estimated volume of soil proposed for the RA was calculated to be approximately 6,600 cubic yards, based on the analytical data gathered during the Phase II by Alta.

# 4.3 Identification and Evaluation of Removal Action Alternatives

Based on our experience and the short time frame for conducting the remedial action, and taking into account cost, effectiveness and implementability, soil excavation was determined to be the only currently viable alternative.

#### 4.4 Description of Recommended Remedy

The recommended RA remedy combines excavation with offsite disposal of the impacted soil.

#### Excavation and Offsite Disposal

An immediate soil removal (excavation and offsite disposal) has generally been accepted as the preferred remedial action for similar site conditions at other similar locations (presumptive remedy). A presumptive remedy (excavation and offsite disposal) has been determined, and no other alternative removal options will be considered further for the accessible VOC COCs in soil that can be practically excavated at this time.

**Excavation**: Excavation involves the removal of soil containing the COCs. Excavation includes using loaders, backhoes, and/or other appropriate equipment. Excavation operations may generate fugitive dust emissions. Suppressant foam, water spray, and other forms of vapor and dust control may be required

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during excavation, and workers may be required to use personal protective equipment to reduce exposure to the COCs. The depth of excavations may be limited due to physical constraints associated with the Site. Sloping excavation sidewalls and slot-cutting may result in increased volume of soil requiring excavation. Confirmation soil sampling and analysis will be conducted to verify soil impact concentrations at the excavation bottom and sidewalls.

Excavated soil will be either directly-loaded into waiting trucks or temporarily stockpiled within an on-site "holding area" using a rubber-tire backhoe or similar equipment (such as wheel loader). Any temporary soil stockpiles will be properly secured and protected until ready for loading for off-site transportation and disposal. Truck loading may take place concurrently with excavation operations, with access of loaders to the stockpile from outside the excavation areas, while excavation operations deposit impacted soil from the excavation areas to the staging areas. Clean, imported soil or other fill material will be brought to the Site to backfill areas where impacted soil was removed. Imported soil and/or other fill material would be accompanied by certificates, analytical data, and/or other supporting documents that indicate the import material is in conformance with cleanup criteria.

Offsite Disposal: Offsite disposal involves removing impacted soil from the Site and transporting it to an appropriate offsite facility for disposal.

The activities that would be conducted to implement this RA are described below.

- Excavate approximately 6,600 cubic yards of Impacted soil from identified locations.
- If necessary, segregate and stockpile impacted soils
- Conduct confirmation soil sampling using either a fixed-base laboratory or an onsite mobile laboratory, and compare confirmation data to the calculated SSLs.
- Load and transport approximately 6,600 cubic yards of impacted soil to an appropriate disposal facility.
- Grade, backfill and compact previously excavated areas using clean, imported fill material.

# 5. APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Previous investigations of the Site indicated the presence of the COCs in soil exceeding the site-specific SSLs. The most effective remedial action for soil has been determined to be removal; consisting of soil excavation and offsite disposal. This section discusses the applicable or relevant and appropriate requirements (ARARs) for the proposed soil excavation and offsite disposal.

#### 5.1 Waste Management

An EPA ID number (CAD009587700) has been obtained for proper management of waste generated during soil excavation activities. Based on the laboratory analytical results of soil samples summarized in Tables 3 through 5, the waste has been profiled as a non-hazardous waste. The excavated soil will therefore be managed as a non-hazardous waste. The volume of soil to be excavated and categorized as a non-hazardous waste is estimated at 6,600 cubic yards (9,900 tons). Non-hazardous soils will be transported to Class 1 or Class 3 landfill.

#### 5.2 Health and Safety Plan

All contractors will be responsible for operating in accordance with the most current requirements of 8 CCR, Section 5192 (8 CCR 5192) and Title 29, Code of Federal Regulations (CFR), Section 1910.120 (29 CFR 1910.120), Standards for Hazardous Waste Operations and Emergency Response

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(HAZWOPER). On-site personnel are responsible for operating in accordance with all applicable regulations of the Occupational Safety and Health Administration (OSHA) outlined in 8 CCR, General Industry and Construction Safety Orders, and 29 CFR 1910 and 29 CFR 1926, Construction Industry Standards, as well as other applicable federal, state and local laws and regulations. All personnel will operate in compliance with all Cal-OSHA requirements.

A site-specific Health and Safety Plan (HASP) has been prepared for the Site under the supervision of a certified industrial hygienist in accordance with current health and safety standards as specified by OSHA and Cal-OSHA. A copy of the HASP is included as Appendix A.

The provisions of the HASP are mandatory for all personnel and contractors who are at the Site. All onsite personnel must read and sign the HASP prior to commencing field activities.

#### 5.3 Others

All necessary permits and approvals identified in this RAW will be obtained prior to any removal activities. Removal activities will be performed by a California-certified contractor with oversight from a Californiaregistered professional geologist or professional engineer.

# 6. REMOVAL ACTION IMPLEMENTATION

The most effective remedial action has been determined to be removal consisting of soil excavation and offsite disposal. Removal activities will be performed by a California-certified contractor with supervision of a California-registered professional geologist or professional civil engineer.

Figure 9 illustrates the excavation areas, as well as the sampling points from the previous investigations.

#### 6.1 Field Documentation

Alta will be responsible for maintaining a field notes during the RA activities. The notes will serve to document observations, personnel on-site, equipment arrival and departure times, and other vital project information, and will be used in the preparation of the RA Report.

#### 6.1.1 Chain-of-Custody Records,

Chain-of-custody records are used to document sample collection and shipment to the laboratory for analysis. All sample shipments for analyses will be accompanied by a chain-of-custody record. Form(s) will be completed and sent with the samples for each laboratory and each shipment. If multiple coolers are sent to a single laboratory on a single day, chain-of-custody form(s) will be completed and sent with the samples for each cooler. The chain-of-custody record will identify the contents of each shipment and maintain the custodial integrity of the samples. Generally, a sample is considered to be in someone's custody if it is either in someone's physical possession, in someone's view, locked up, or kept in a secured area that is restricted to authorized personnel. Until receipt by the laboratory, the custody of the samples will be the responsibility of the sample collector.

#### 6.2 Permitting and Notifications

As part of Site work, it will be necessary to obtain the following permits and make the following notifications:

- Underground Service Alert (USA)
- AQMD: Rule 1166, Rule 402 and Rule 403
- Excavation Permit

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Other permits and notifications to complete the work may be required by local, state, or federal agencies. The following subsections describe some of the required permitting activities:

#### 6.2.1 AQMD Permits

South Coast AQMD has two rules that address soil excavation (Rules 1150 and 1166) and one that addresses fugitive dust (Rule 403). Rule 1150 applies to the excavation of sanitary landfills and does not apply to this project. Rule 1166 applies to the excavation of soils containing VOCs and does apply to this project.

Several elements of Rule 403, such as protocols for mitigation of potential fugitive dust emissions, have been incorporated into this RAW. Excavation, loading, and transport of impacted soils will be in compliance with Rule 403 prevention, reduction, and mitigation measures for fugitive dust emissions. However, notification of South Coast AQMD is required only for large operations (disturbing more than 100 acres or moving more than 10,000 cubic yards per day). Therefore, no notification or filing of a Fugitive Dust Emission Control Plan is required due to project size.

#### 6.3 Site Preparation and Security Measures

Prior to equipment mobilization for the proposed RA, Site preparation activities may include Site inspections, demarcation of hot spots, and utility disconnections.

#### 6.3.1 Delineation of Excavation Areas

The areal limits of all excavations will be delineated by the RA contractor, in consultation with the client and the LARWQCB before commencement of removal activities. The areas to be excavated will be called the "excavation areas," and they will be marked (as the exclusion zones) in the field by the RA contractor with high-visibility paint.

#### 6.3.2 Utility Clearance

Clearance of utilities and other hazardous underground obstacles will be conducted prior to initiation of any excavation activities. Such possible obstacles may include water, electrical, gas, oil, communication cable, phone cable, TV cable, and sewer lines. At a minimum, the utility clearance will include a 48-hour notification of the local USA and a Site visit. In addition, a geophysical survey may be conducted as appropriate to clear each excavation area.

#### 6.3.3 Security Measures

This Site is protected by 24-hour security and is bounded by a perimeter fence which will increase the likelihood that the work areas are secure and safe. To ensure that trespassers or unauthorized personnel are not allowed near work areas, security measures may include, but are not limited to:

- · Posting notices directing visitors to the Site manager.
- Installing barrier fencing around work areas to restrict access to sensitive areas.
- Providing adequate Site security to ensure that unauthorized personnel have no access to work areas and/or contaminated materials.
- Maintaining a safe and secure work area, including areas where equipment is stored or placed, at the close of each workday.

Persons requesting access to the excavation areas will be required to demonstrate a valid purpose for access and if access to work areas and/or contaminated materials is planned, provide appropriate

Alta Environmental MCGU-13-2252 July 10, 2013 documentation to demonstrate they have received proper training required by the site-specific HASP (see Appendix A).

#### 6.3.4 Contaminant Control

In order to minimize potential exposure of fugitive dust to the adjacent properties, dust monitoring, and if necessary dust suppression measures will be used. Section 6.

#### 6.4 Soil Management

Impacted soils will be stockpiled or direct-loaded for lawful offsite disposition. The following sections discuss soil and material segregation, stockpile handling, truck loading, and storm water management.

#### 6.4.1 Soil Staging and Storage Operations

If it is necessary to temporarily store the excavated soil on-site until offsite transportation and disposal are available, the following may apply. The staging process will be conducted in a manner to minimize the generation of dust. At the staging areas, excavated soil will be placed on an impermeable barrier base (e.g., concrete floor, plastic sheeting) and covered with tarps or other proper materials (e.g., plastic sheeting) to prevent any run-on and/or dust generation. If significant rainfall is anticipated, the staging areas will be bermed to contain any run-off. When possible, excavated soils may be placed in covered roll-off bins or drums, or may be loaded directly onto transportation trucks.

The temporary on-site storage of excavated soil wastes will be secured and properly until offsite transportation and disposal are ready for loading. Storage of waste for longer than 90 days after its generation is not anticipated.

Direct loading may take place concurrently with excavation operations, with access of loaders to the stockpile from outside the excavation areas, while excavation operations deposit impacted soil from the excavation areas to the staging areas.

During non-excavation hours, excavated soil stockpiles will be covered with plastic sheeting or other proper materials. Additional field applications may involve installation of a temporary canopy, liner, or other physical barrier that minimizes movement of materials from the Site by wind, water, or any other mechanism.

#### 6.4.2 Waste Segregation Operations

Prior to stockpiling/staging, the excavated soil will be segregated to the extent possible to avoid any mixture of impacted and non-impacted soils. This segregation will minimize the amount of impacted soils generated and their associated disposal cost. The soil segregation will be based on PID readings, visual observations, on-site generated laboratory data, and the previous site assessment data.

# 6.5 Decontamination Methods and Procedures

#### **Decontamination Area**

Entry to the contaminated areas should be limited to avoid unnecessary exposure and related transfer of contaminants. In unavoidable circumstances, any equipment or truck(s) should be decontaminated in a designated decontamination area before leaving the Site as described below.

#### Decontamination Procedures

Equipment that comes into direct contact with potentially contaminated soil or water will be decontaminated to assure the quality of samples collected and/or to avoid cross contamination.

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Disposable equipment intended for one-time use will not be decontaminated but will be packaged for appropriate disposal. Decontamination will occur prior to and after each designated use of a piece of equipment.

Trucks that come into direct contact with potentially contaminated soil or water will be decontaminated before they leave the Site to prevent the offsite tracking of contaminated soil. Trucks will be visually inspected before leaving the Site, and any dirt adhering to the exterior surfaces will be brushed off and collected on plastic sheeting. The storage bins or beds of the trucks will be inspected to ensure the loads are properly covered and secured. Excavation equipment surfaces will also be brushed off prior to removal from the exclusion zone.

Equipment will be decontaminated in a pre-designated area on pallets or plastic sheeting. Cleaned bulky equipment will be stored on plastic sheeting in uncontaminated areas. Cleaned small equipment will be stored in plastic bags. Materials to be stored more than a few hours will also be covered.

### 6.6 Air and Meteorological Monitoring

This section details the air and meteorological monitoring strategy and methodologies that will be used during the soil RA. The strategy and methodologies are designed to achieve several goals:

- Identify and measure the air contaminants generated during the soil removal and decontamination activities to assign the appropriate personal protective equipment (PPE) and safety systems specified for those activities.
- Provide feedback to Site operations personnel regarding potential hazards from exposure to hazardous air contaminants generated through Site activities.
- Identify and measure air contaminants at points outside the soil removal and decontamination exclusion zones. Air monitoring will be conducted during work activities to measure potential exposure of sensitive receptors to Site chemical constituents as a result of removal activities.

#### 6.6.1 Air Monitoring

If required, air monitoring will be performed during all Site activities in which contaminated or potentially contaminated materials are disturbed or handled.

- Monitoring dust levels in the exclusion zone and other locations. The Site air-monitoring professional will have the authority to stop work in the event that on-site activities generate dust levels which exceed the Site or community action levels (see the chart below). The air-monitoring professional will monitor on-site meteorological instrumentation and/or coordinate with offsite meteorological professionals to identify conditions that require cessation of work, e.g., winds in excess of 25 mph. No specific regulatory wind velocity restrictions for soil excavation were found to exist in the subject area. However, a self-imposed action level for work stoppage will be set at a sustained wind velocity of 25 mph.
- Coordinating general Site safety activities, including all daily hazard communication, safety practices and procedure briefings.
- Overseeing all personal decontamination practices.
- Providing general Site safety leadership, support and recordkeeping activities.

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#### Air Monitoring Strategy and Methodologies

Monitoring of VOCs will be conducted in compliance with AQMD Rule 1166 (Volatile Organic Compound Emissions from Decontamination of Soil). VOC-impacted soil is defined as having VOC concentrations of 50 ppm or greater as measured by a hexane-calibrated organic vapor analyzer (OVA).

As applicable, Alta will monitor dust levels in the following general locations:

- Upwind (offsite property if possible)
- Proximate to the exclusion zone (with the equipment operator)
- Up to three fence line/downwind locations
- · As deemed necessary to determine employee exposure

Air monitoring samples will be collected over an eight- to ten-hour period each day that RAW activities are conducted. The air-monitoring professional will check the equipment every 15 minutes during operation.

As specified in the HASP (see Appendix A), the RA contractor will base Site safety procedures, including dust control measures, on the Action Levels specified in the following chart,

#### EXPOSURE GUIDELINES FOR DUST

Chemical Name	Cal-OSHA	ACGIH	Site Action	Community Action Level
	PEL <sup>a</sup>	TLV <sup>b</sup>	Levels	(Fence Line) <sup>d, e</sup>
Total dust	10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	1:0 mg/m <sup>3</sup>	0.05 mg/m <sup>3</sup>

#### 6.6.2 Meteorological Monitoring

If required, on-site ambient weather conditions (wind speed and direction, and relative humidity) will be monitored by the following methods: an on-site meteorology station, real-time Internet weather locations, and the National Weather Service (if a local station can provide data relevant to the Site). If offsite meteorological stations cannot provide data relevant to the Site, an on-site meteorological station will be set up and monitored during excavation activities.

On-site meteorological monitoring will be performed simultaneously with the excavation activities to ensure all necessary precautions have been taken. Detailed information is described in the Site-specific HASP (see Appendix A).

Note that a Wind Rose Plot for the Los Angeles International Airport is provided on Figure 4.

#### 6.6.3 Dust Monitoring

The majority of the excavated soil will be clay, so significant dust issues are not anticipated. If required, Alta will implement appropriate procedures to control the generation of airborne dust by soil removal activities. Such procedures will include but will not be limited to the following:

 Generation of dust during the removal operations will be minimized as necessary with the use of water as a dust suppressant. The water will be available via a water truck or a metered discharge

Alta Environmenta MCGU-13-2252 July 10, 2013 from a fire hydrant located proximate to the Site. Alta will control dust generation by spraying water prior to daily work activities, during excavation/loading activities (as necessary), and at truck staging locations. Watering equipment will be continuously available to provide proper dust control.

 If required, the air-monitoring professional will monitor on-site meteorological instrumentation and/or coordinate with offsite meteorological professionals to identify conditions that require cessation of work.

#### 6.7 Sampling and Analysis Plan

#### 6.7.1 Waste Profile Sampling

Waste characterization was performed by analyzing soil samples representative of each area designated for offsite transport and disposal during the Phase II (Alta, 2013). Analytical results are presented in Tables 3 through 5. Based on the analytical results, the waste has been profiled as a non-hazardous waste.

#### 6.7.2 Confirmation Sampling

Once complete, each excavation area will be sampled at the bottom and sidewalls to verify remaining contaminant concentrations, if any. Confirmation soil sample locations will be determined in the field, as the excavation progresses. The proposed confirmation sampling locations are provided on Figure 10.

Confirmation samples for VOCs will be collected using a clean trewel or plastic disposable trowels and transferred directly into sampling jars or tubes. The final confirmation samples will be properly covered, labeled and stored onsite in a cooled chest prior to delivery to a California laboratory certified by the Environmental Laboratory Accreditation Program, or to an onsite mobile laboratory.

Confirmation soil samples will be delivered to the laboratory on the same day collected, if time permits, and no later than the day following collection. In the event the samples are delivered the day after they are collected, the samples will be secured under proper chain-of-custody documentation until delivery.

The excavation will terminate when the cleanup goals are met or it becomes impractical to continue excavating.

#### 6.8 Transportation Plan for Offsite Disposal

As soil is excavated, it will be direct-loaded for transportation offsite or temporarily stockpiled onsite, until offsite transportation and disposal can be arranged. Offsite transportation and disposal will typically be conducted during weekdays between 7AM and 5PM. Detailed information on waste transportation and disposal will be described in the Transportation Plan. The Transportation Plan is in progress and will be provided prior to implementation of the RAW.

Approval of the waste material will be received from the disposal facility before soil is transported offsite for lawful disposition. Once the disposal facility is confirmed, the soil will be transported for disposal.

#### 6.9 Backfill and Site Restoration

An offsite source of clean backfill material will be identified prior to the RA. Imported soils will be appropriately tested or documented before backfilling activities commence.

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#### 6.9.1 Load Checking

As applicable, all loads of imported fill entering the Site will be checked by an organic vapor analyzer (OVA) and by visual screening for potential contamination.

#### 6.9.2 Diversion of Unacceptable Borrow

Imported fill soils material will be visually checked for unacceptable materials at the working face. If loads containing unacceptable materials (exhibit staining, odors, or detectable VOCs) are dumped, transporters of the unacceptable loads will be stopped before leaving the Site. The Site entry/exit gate will be closed after entry of each transporting vehicle.

Equipment operators will watch for evidence of contaminated imported fill in loads being dumped at the working face. If contaminated soils are found or suspected, the imported fill soils are to be isolated. The hauler of the prohibited materials will be identified, and the Site Manager will be contacted to determine what appropriate actions will be taken.

Segregated improper materials will be removed from the working face immediately. These materials will be reloaded to the transporter's vehicle when possible, or stockpiled in an appropriate area for later removal by a properly licensed waste hauler.

#### 6.9.3 Documentation of Rejected Loads

All loads that enter the Site and are subsequently rejected will be recorded. Data compiled will include when the incident occurred, who the hauler was, why the load was rejected, whether the load was dumped prior to rejection, and what steps were taken to remove the rejected material. Additional data may be recorded as deemed necessary for the particular situation.

A separate area will always be maintained for the storage of unacceptable materials, pending removal by the original transporter or a properly licensed waste hauler.

#### 6.9.4 Site Restoration

Site restoration will include backfilling the excavation areas with clean soil (from an offsite source) and returning any surface features to their current condition or in accordance with Site construction/grading plans approved for the site. Backfilling will proceed in approximately 1-foot lifts with compaction (by tracking with a dozer or other equipment) between each successive lift to the preexisting grade or level specified in the grading plans. Compaction will be certified, and a compaction report provided in the final report for this site work. If weather conditions prevent immediate restoration of the excavation areas, erosion controls will be established as necessary.

#### 6.10 Variance

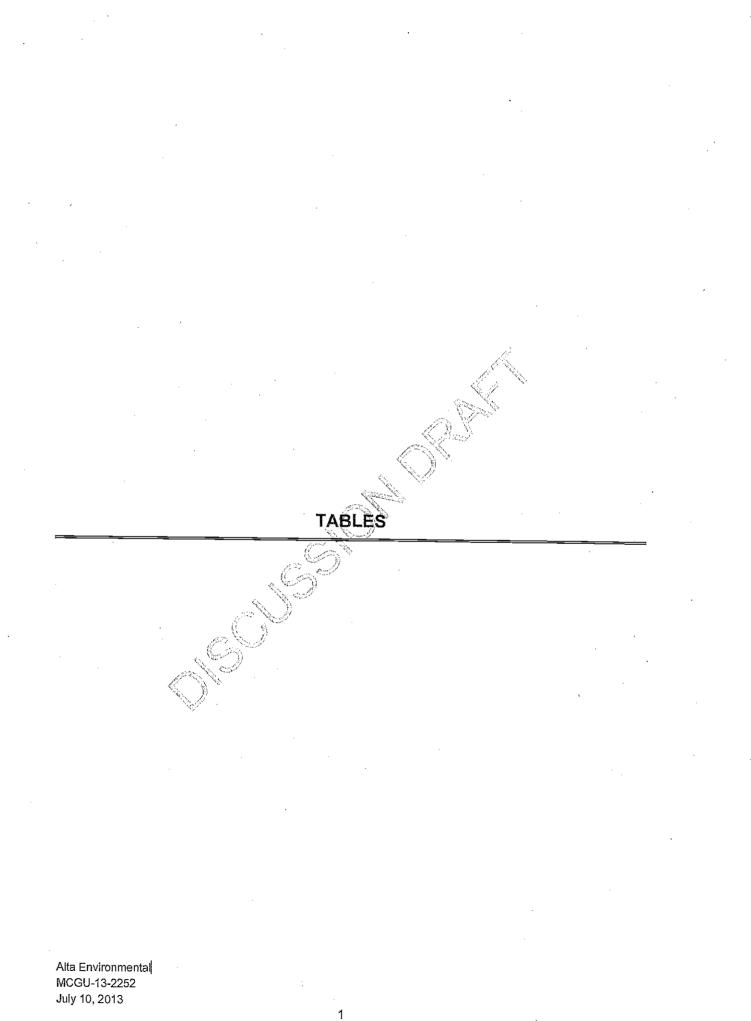
As conditions in the field can vary, it may become necessary to implement modifications to soil removal activities as presented in this RAW. These variations will be documented in the final report.

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# 7. REFERENCES

- 1. Agency for Toxic Substances and Disease Registry (ATSDR), U.S. Department of Health and Human Services, 2008.
- 2. Alta Environmental, Site Assessment Report (in progress).
- 3. California Environmental Protection Agency (CalEPA), *Revised California Human Health Screening Levels for Lead*, September, 2009.
- 4. CalEPA, Use of California Human Health Screening Levels in Evaluation of Contaminated Properties, January, 2005.
- 5. California Regional Water Quality Control Board, Los Angeles Region (RWQCB), Interim Site Assessment and Cleanup Guidebook, May, 1996.
- 6. Department of Toxic Substances Control (DTSC), Fact Sheet, "Information Advisory Clean Imported Fill Material," October 2001.
- 7. DTSC, 1994a, Preliminary Endangerment Assessment Guldance Manual 1994 (revised 1999).
- 8. DTSC, 1994b, Transportation Plan, Preparation Guidance for Site Remediation, Interim Final, May 1994.
- 9. Environ, Phase I Environmental Site Assessment, Teledyne Electronic Technologies, 12964, 12950, 12930, 12922, 12918, 12910, and 12908 Panama Street, Los Angeles Ca, Draft.

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# TABLE 1 Soil Screening Levels Using Attenuation Factor Method 12922 Panama Street, Los Angeles, Californía

		-		
SSL (trans-1.2-00E) (ppb)	61	28	40	10
SSL (1 - DCE) (pob)	36.6	35.4	24	ω
SSL (1,2-dichloro- benzene)	3,660	3,540	2,400	600
SSL (n,1-DCA) (gpb)	30.5	29.5	20	a
SSL (DCE) (pob)	36.6	35.4	24	ω
SSL (TGE) (Ppu)	30.5	29.5	20	ດມ
SSL (RGE) (gPA)	30.5	29.5	20	Q
SSL (Berzene) (ppb)	6.1	5.9	4.0	-
AF	6.1	5.9	4.0	
Ave. % lithology	Clay - 85 SilVSand - 15	Clay - 82 SilVSand - 18	Clay - 50 SilVSand - 50	
Depth r GroundWater	11.5	11.5	11.5	MCL
Distance Above Groundwater	Ø	0. 0	1.5	
Depth (bys)	2.5	5.0	10	

AF = Attenuation Factor, calculated using Table 5-1 of 1996 RWQCB Guidance Document SSL = Soil Screening Levels = AF X MCL

MCL = State of California Maximum Contaminant Level in Groundwater (ppb) for selected VOC

Lithology % = Approximate percentage of vertical distribution of soil lithology between sample and groundwater depth. Based on boring logs B7, B20, VA1, B54, B51, B53, B49, B48, B47, B45, B55, B46, B44, B43, GW1, GW3, B37, B50, B52, B61, and B62 for sample depiths 2.5 and 5 feet bgs.

Based on lithology in Borings B43, B44, VA1, and GW3 for sample depth at 10 feet bgs.

PČE = Tetrachloroethene

TCE = Trichloroethene DCF = cis-1.2-dichloroethen

DCE = cls-1,2-dichloroethene 1,1-DCA = 1,1-dichloroethane 1,1-DCE = 1,1-dichloroethene trans-1,2-DCE = trans-1,2-dichloroethene

ppb = parts per billion





ODD         Antioned actionti         Antionedactiontic         Antione		No. No.		San pie ID	D		84-2.5	B4-5	B6 2.5	E71-2.5	5+14E	BB-2.5	BB-5	B9-2-6	6-9 <b>8</b>
Interpretation         Interpr		an and	· · · · · · · · · · · ·	Date			429/2013	4/29/2016	04/29/2016	4/26/2013	4/26/2010	4/26/2015	4,26/20/13	4/28/2013	4/26/20/1
100000         1000         10000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000	VOCs by EPA Method 8260B in	8	Semple	AF 38		1501 - 1651									
2.00         5.6         6.1         4.40         4.40         ND	Soil	:(0)((0))	De ath	(BS(301)	((0)((0))	(53)(33)		1. 10 1. 10 1. 10 1. 10 1. 10 1. 10 1. 10 1. 10 1. 10 1. 10 1. 10 1. 10 1. 10 1. 10 1. 10 1. 10 1. 10 1. 10 1.		VOC 0	oncentration				
2.00         5.0         4.40         4.40         MD	Benzene	2.00	2.5	6.1	44.0	44.0	QN		QN					ND<10	
2.00         1.00         4.0         4.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00	Benzene	2.00	5.0	5.9	44.0	44.0		QN			QN		QN		QN
10.0         2.5         3.660         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/100         1/	nzene	2.00	10.0	4.0	44.0	44.0									
100         5.00         3.540         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.	2-Dichlorobenzene	10.0	2.5	3,660	1,100	1,100	QN		QN	10.3		17.3		0.77	
100         100         2.400         1,100         1,100         1,100         1,100         1,100         ND         ND<	2-Dichlorobenzene	10.0	5.0	3,540	1,100	1,100		QN			107		56.6		QN
10.0         2.5         30.5         200         200         ND         ND         10.1         ND	2-Dichlorobenzene	10.0	10.0	2,400	1,100	1,100									
10.0         5.0         23.5         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         100	1-Dichloroethane	10.0	2.5	30.5	200	200	QN		QN	10.1		QN		ND<50	
10.0         10.0         20.0         200         200         100         ND	1-Dichloroethane	10.0	5.0	29.5	200	200		QN			QN		QN		aN
10.0         2.5         36.6         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,190         ND         N	1-Dichloroethane	10.0	10.0	20.0	200	200									
10.0         5.0         35.4         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,1	I-Dichloroethene	10.0	2.5	36.6	1,000	1,000	QN		QN	QN		QN		ND<50	
10.0         10.0         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1,190         1	I-Dichloroethene	10.0	5.0	35.4	1,000	1,000		QN			QN		QN		QN
10.0         2.5         36.6         190         190         ND         ND         204         ND         ND         1,190           10.0         5.0         35.4         190         190         ND         ND         ND         ND         1,190           10.0         5.0         35.4         190         190         ND         <	1-Dichloroethene	10.0	10.0	24.0	1,000	1,000									
	-1.2-Dichloroethene	10.0	2.5	36.6	190	190	QN		Q	204		QN		1 190	
	-1,2-Dichloroethene	10.0	5.0	35.4	190	190		QN			69.4		Q		107
Inc.         10.0         2.5         61.0         670         ND	-1,2-Dichloroethene	10.0	10.0	24.0	190	190									
Inc.         5.0         59.0         670         670         670         670         670         670         670         670         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700         700 </td <td>ns-1,2-Dichloroethene</td> <td>10.0</td> <td>2.5</td> <td>61.0</td> <td>670</td> <td>670</td> <td>QN</td> <td></td> <td>QN</td> <td>QN</td> <td></td> <td>Q</td> <td></td> <td>ND&lt;50</td> <td></td>	ns-1,2-Dichloroethene	10.0	2.5	61.0	670	670	QN		QN	QN		Q		ND<50	
10.0 $10.0$ $40.0$ $670$ $670$ $670$ $670$ $670$ $670$ $670$ $670$ $670$ $670$ $670$ $670$ $670$ $670$ $670$ $670$ $670$ $725$ $726$ $726$ $725$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$ $726$	ns-1,2-Dichloroethene	10.0	5.0	59.0	670	670		QN			QN		DN		Q
10.0         2.5         30.5         550         700         110         30.0         ND         316         725           10.0         5.0         29.5         550         700         10.7         30.0         ND         76         725           10.0         5.0         29.5         550         700         10.7         0.7         86.2         725           10.0         20.0         550         700         10.7         0.7         0         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7         10.7	ns-1,2-Dichloroethene	10.0	10.0	40.0	670	670									
10.0       5.0       550       7.00       10.7       0.00       ND       0.00       65.2       1.20         10.0       10.0       550       700       10.7       0.0       ND       65.2       1.20       1.20         10.0       10.0       20.5       550       700       50       700       65.2       1.20       65.2       1.20       1.20       1.20       1.20       1.20       1.20       1.20       1.20       1.20       1.20       1.20       1.20       1.20       1.20       1.45       1.45       1.45       1.45       1.45       1.45       1.45       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46       1.46	rachtoroethene (DCE)	10.0	3.6	30.5	KED.	002	110		30.0			345		345	
10.0       10.0       550       700       60       68.0       ND       68.0       ND       452         10.0       2.5       30.5       460       300       31.4       ND       452       452         10.0       5.0       29.5       460       31.4       ND       ND       165       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0	trachloroethene (PCE)	10.0	5.0	29.5	550	700		10.7			QN		65.2	671	29.6
10.0         2.5         30.5         460         300         58.0         ND         34.0         452           10.0         5.0         29.5         460         300         31.4         ND         34.0         452           10.0         5.0         29.5         460         460         31.4         ND         ND         ND           10.0         10.0         20.0         460         460         31.4         ND         ND         ND	trachloroethene (PCE)	10.0	10.0	20.0	550	700									
10.0         2.5         30.5         460         300         58.0         ND         34.0         452           10.0         5.0         29.5         460         460         31.4         ND         74.0         145         145         14.0         10.0         20.0         460         460         14.0         10.0         10.0         20.0         460         460         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         14.0         <															
10.0         5.0         29.5         460         460         31.4         ND         ND           10.0         10.0         20.0         460         460         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0         10.0	chloroethene (TCE)	10.0	2.5	30.5	460	460	300		58.0	QN		34.0		452	
10.0 10.0 20.0 460	chloroethene (TCE)	10.0	5.0	29.5	460	460		31.4			QN		QN		11.3
	chloroethene (TCE)	10.0	10.0	20.0	460	460									
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NOTES:

VOC = Volatile Organic Compound

ND<X = Indicated constituents not detected above the PQL of X PQL = Practical Quantitation Limit ND = Indicated constituents not detected above the PQL

AFM SSL = LARWQCB Attenuation Method Site Screening Levels

µg/kg = micrograms per kilogram ESL - Ind. = SFRWQCB Industrial Environmental Screening Levels



Page 1 of 8

3.6 B14.2.6 B15.2.5	4/29/2013 5/1/20/3 5/1/2013		2.28 3.40	-			-		dN QN				-		ND 13.4			ON ON	╞		43.4 84.6			-	15.7 34.5
B15-2,5 B13	5	allat.	ND<10			ND<50			ND<50	-		ND<50			1.810			ND<50	-		ND<50	Q		1	ND<50
84245	0	VOC Concentration and tra		Q			g			g			Q			218			QN			QN			-
E42.2.5	4/28/2013	1 JUN	ND<10			120			ND<50			ND<50			4,190			70.0			59.0			460	100
Br1-2.6	4/29/2018		4.04			Q			QN			Q			108			QN			133			69.2	4100
B-0-5	4/26/2013			ND<40			ND<200			ND<200			ND<200			ND<200			ND<200			10,500			-
B10-2.5	4/26/2013		ND<100			ND<500			ND<500			ND<500			ND<500			ND<500			40,600			ND<500	
		iou) 1001	44.0	44.0	44.0	1.100	1,100	1,100	200	200	200	1.000	1,000	1,000	190	190	190	670	670	670	700	700	700	460	2027
0		ESL RLS. (unida)	44.0	44.0	44.0	1,100	1.100	1,100	200	200	200	1.000	1,000	1,000	190	190	190	670	670	670	550	550	550	460	2 P
Sample ID	Date	AF 3SL Fabrico	6.1	5,9	4.0	3.660	3,540	2,400	30.5	29.5	20.0	36.6	35.4	24.0	36.6	35.4	24.0	61.0	59.0	40.0	30.5	29.5	20.0	30.5	
		Sample Deoth	2.5	5.0	10.0	2.5	5.0	10.0	2.5	5.0	10.0	2.5	5.0	10.0	2.5	5.0	10.0	2.5	5.0	10.0	2.5	5.0	10.0	25	, i
		PQL	2.00	2.00	2.00	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	
and the second s		VOCs by FPA Mithod 8260B in Soll	Benzene	Benzene	Benzene	1.2-Dichlorobenzene	1,2-Dichlorobenzene	1,2-Dichlorobenzene	1,1-Dichloroethane	1,1-Dichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethene	cis-1,2-Dichloroethene	cis-1,2-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	trans-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene (PCE)	Tetrachloroethene (PCE)	Tetrachloroethene (PCE)	Trichloroethene (TCE)	

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NOTES: VOC = Volatile Organic Compound

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AFM SSL = LARWOCB Attenuation Method Site Screening Levels

µg/kg ≔ micrograms per kilogram ESL - Ind. = SFRWQCB Industrial Environmental Screening Levels



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	No.		SampleliD	0		B16-2.5	B16-5	82026	1525-2.5	- 328-2-5	B29-215	E47.2.5	B38-2.5	B80-2.6
			Usto	L ·		6/4/20055	5/12043	SIZTEDAG	5612013	412512016	CHANDINGS	SISIONS	STREETS	S. TORA
VOCs by			AD PORT											2
EPA Met _ d 8260B /r. Soil	POL	Sample Depth	AF SSL (UCKO)	ES - Res. (doiter)	CS: 101				VOCO	Consentration (nation)	di nadhrai			
Benzene	2.00	2.5	6.1	44.0	44.0	GN	11 N.A. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	QN	GN	2.40	QN	3.90	8.98	CN
Benzene	2.00	5.0	5.9	44.0	44.0		QN							
Benzene	2.00	10.0	4.0	44.0	44.0									
1.2-Dichlorobenzene	10.0	2.5	3.660	1,100	1.100	GN		UN	UN	ND	CIV.	QN	MD	CIV
1,2-Dichlorobenzene	10.0	5.0	3,540	1.100	1,100	2	QN							- N
1,2-Dichlorobenzene	10.0	10.0	2,400	1,100	1,100									
4 4 Distant attend	0.01	4		440										
	10.0	C'7	30.5	200	200	ND		QN	QN	QN	QN	QN	QN	QN
1,1-UICNIDroetnane	0.01	5.0	29.5	200	200		Q							
1, T-UICHIOROETHANE	10.0	10.0	20.0	200	200									
1,1-Dichloroethene	10.0	2.5	36.6	1.000	1.000	QN		GN	QN	QN	UN	GN	ND	UN
1,1-Dichloroethene	10.0	5.0	35.4	1,000	1,000		QN							2
1,1-Dichloroethene	10.0	10.0	24.0	1,000	1,000									
cis-1,2-Dichloroethene	10.0	2.5	36.6	190	190	162		QN	QN	QN	a	q	QN	26.9
cis-1,2-Dichloroethene	10.0	5.0	35.4	190	190		23.3							
cis-1,2-Dichloroethene	10.0	10.0	24.0	190	190									
trans-1,2-Dichloroethene	10.0	2.5	61.0	670	670	QN		QN	QN	QN	GN	GN	GN	GN
trans-1,2-Dichloroethene	10.0	5.0	59.0	670	670		QN							
trans-1,2-Dichloroethene	10.0	10.0	40.0	670	670									
Tetrachloroethene (PCE)	10.0	2.5	30.5	550	700	42.6		18.1	44.0	20.9	84.4	45.6	302	28.9
Tetrachloroethene (PCE)	10.0	5.0	29.5	550	700		Q							
Tetrachloroethene (PCE)	10.0	10.0	20.0	550	200									
Trichloroethene (TCE)	10.0	2.5	30.5	460	460	67.5		QN	QN	G	GN	GN	GN	159
- Trichloroethene (TCE)	10.0	5.0	29.5	460	460		QN							
Trichloroethene (TCE)	10.0	10.0	20.0	460	460									
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NOTES:

VOC = Volatile Organic Compound PQL = Practical Quantitation Limit

ND = Indicated constituents not detected above the PQL ND-X = Indicated constituents not detected above the PQL of X AFM SSL = LARWQCB Attenuation Method Site Screening Levels

µg/kg = micrograms per kilogram ESL - Ind. = SFRWQCB Industrial Environmental Screening Levels



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 Table 2

 Soil Matrix Sample Results for VOCs

 Comparison with AF Method Site Screening Levels and SFRWQCB ESLs

 12922 Panama Street

 Los Angeles, California

B46-2.5	GGPDO		QN			QN			QN			QN			QN			QN			26.5			42.4		
B45-5.0	RIG 2013			QN			QN			QN			QN			49.7			QN			QN			QN	
345-2.5	SIGRANS		4.0			QN			QN			CN			238			14.5			QN			123		
B44.10	(5/5/2013)	(ne/ka)			QN			QN			QN			QN			46.2			Q			QN			QN
B44-5.0	in (Statute)	VOC Concentration (ual/ o)		QN			QN			QN			QN			55.2			QN			QN			QN	
日48-10	SISPORE .	VĐC Co			QN			Q			DN			QN			30			QN			QN			QN
E43-5.0	SISPA043			QN			QN			QN			QN			93.2			QN			QN			QN	
346-5,0	S1424753			QN			QN			QN			qN			21.4			GN			QN			ND	
B40-2.5	SI7/2013		an			QN		940 AUX-	QN			GN			54			QN			QN			11.4		
		ESL - 105. (19759)	44.0	44.0	44.D	1,100	1,100	1,100	200	200	200	1.000	1,000	1,000	190	190	190	670	670	670	700	700	700	460	460	460
		55L (2010)	44.0	44.0	44.0	1,100	1,100	1,100	200	200	200	1.000	1,000	1,000	190	190	190	670	670	670	550	550	550	460	460	460
Sample ID	Date	AF SSL (pg/kg)	6.1	5.9	4.0	3,660	3,540	2,400	30.5	29.5	20.0	36.6	35.4	24.0	36.6	35.4	24.0	61.0	59.0	40.0	30.5	29.5	20.0	30.5	29.5	20.0
		Sample Depth	2.5	5.0	10.0	2.5	5.0	10.0	2.5	5.0	10.0	2.5	5.0	10.0	2.5	5.0	10.0	2.5	5.0	10.0	2.5	5.0	10.0	2.5	5.0	10.0
		(Es)Jar)	2.00	2.00	2.00	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
		VOCs by EPA Method 8260B in Soll	Benzene	Benzene	Benzene	1,2-Dichlorobenzene	1,2-Dichlorobenzene	1,2-Dichlorobenzene	1,1-Dichloroethane	1,1-Dichloroethane	1,1-Dichloroethane	1.1-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethene	cis-1,2-Dichloroethene	cis-1,2-Dichloroethene	cis-1,2-Dichloroethene	trans-1 2-Dichloroethene	trans-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene (PCE)	Tetrachloroethene (PCE)	Tetrachloroethene (PCE)	Trichloroethene (TCE)	Trichloroethene (TCE)	Trichloroethene (TCE)

THARD NOISEUDEID

NOTES:

VOC = Volatile Organic Compound

PQL = Practical Quantitation Limit ND = Indicated constituents not detected above the PQL

NDcX = Indicated constituents not detected above the PQL of X AFM SSL = LARWOCB Attenuation Method Site Screening Levels

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			Sigmple ID	0	100-01	B47-2,5	B47-5.0	B46.2.5	B48-5.0	B49-2-5	B46.5.0	B60 2.5	B51-2,5	B52-2.5
	1 11 11 11 11 11	100 100 100 100 100 100 100 100 100 100	Date			5/34/2018	5/31/2013	5/84/2013	5/3/128/3	5:5-1/28:3	5 5 Stri2013	S(6)2013	is(6/20/13)	6/6/2013
VOC <sup>e</sup> by EPA Method 8260B in Soli	PQt (J9Kg).	Sumple Outpite	AF SSL	ESL - Res. (Jug/Ng)	ESL Ing. (1976g)				VOC C	VOC Concentration (ud/kn)	te Bilkel			
Benzene	2.00	2.5	6.1	44.0	44.0	5.50		QN		4.18		2.84	2.76	QN
Benzene	2.00	5.0	5.9	44.0	44.0		QN		QN		QN			
Benzene	2.00	10.0	4.0	44.0	44,0									
1,2-Dichlorobenzene	10.0	2.5	3,660	1,100	1,100	QN		QN		QN		QN	QN	QN
1,2-Dichlorobenzene	10.0	5.0	3,540	1,100	1,100		QN		QN		QN			
1,2-Dichlorobenzene	10.0	10.0	2,400	1,100	1,100									
1,1-Dichloroethane	10.0	2.5	30.5	200	200	59.2		QN		QN		QN	ΩN	QN
1,1-Dichloroethane	10.0	5.0	29.5	200	200		QN		Q		QN			
1,1-Dichloroethane	10.0	10.0	20.0	200	200									
1,1-Dichloroethene	10.0	2.5	36.6	1,000	1,000	QN		ND		QN		QN	QN	QN
1,1-Dichloroethene	10.0	5.0	35.4	1,000	1,000		QN		QN		QN			
1,1-Dichloroethene	10.0	10.0	24.0	1,000	1,000									
cis-1,2-Dichloroethene	10.0	2.5	36.6	190	190	59.2		QN		QN		QN	QN	24.4
cis-1,2-Dichloroethene	10.0	5.0	35.4	190	190		DN		QN		GN			
cis-1,2-Dichloroethene	10.0	10.0	24.0	190	190									
trans-1,2-Dichloroethene	10.0	2.5	61.0	670	670	QN		QN		QN .		QN	GN	GN
trans-1,2-Dichloroethene	10.0	5.0	59.0	670	670		QN		QN		Q			
trans-1,2-Dichloroethene	10.0	10.0	40.0	670	670									
É C C		1				4				1				
	0.01	0.7	50.0	000	00/	9.11		21.2		135		36.1	89.3	QN
Tetrachioroethene (PCE)	10.0	5.0	29.5	550	100	1	dN		22.4		47.3			
Tetrachloroethene (PCE)	10.0	10.0	20.0	550	700									
Trickle wether of ATATA	0.01	1		007	007			;						
Iricoloroetnene (ICE)	10.0	2.5	30.5	460	460	330		10		14.1		DN	21.4	DN
Trichloroethene (TCE)	10.0	5.0	29.5	460	460		15.1		QN		DN			
Trichloroethene (TCE)	10.0	10.0	20.0	460	460									
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DISCOSSION DEVEL

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µg/kg = micrograms per kilogram ESL - Ind. = SFRWQCB Industrial Environmental Screening Levels



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1144544	6/7/2010			QN			QN				QN			QN			QN			QN			12.3			QN	
Science 15	SECTATES		QN			UN				QN			QN			QN			QN			A7 6	0.4		QN		
B671-2.15	61/1/2010		QN			QN				Q			Q			QN			QN			19.2	2.7		QN		
B56-2.5	5/31/2013	(1):- / III:	QN			Q		1		Q			QN			QN			QN			7 10			53.1		
B\$5-5.0	SIS 2013	VOC Concentration (and co		QN			QN				QN			QN			210			QN			QN			QN	
B155-2-5	8/15/2018	VOC Co	QN			Q				QN			QN			3,060			QN				2		QN		
25/ 5.0	5/85/12/01/3			QN			10				9			12.9			QN			QN			QN			DN	
864-2.5	515.8/2013		2.78			23.1				Q			Q			204			10.6			107			107		
B50-2.5	6/6/2013		ND			QN				QN			QN			132			Ð			GN			QN		
		(100) (100)	44.0	44.0	44,0	1.100	1,100	1,100		200	200	200	1,000	1,000	1,000	190	190	190	670	670	670	700	200	200	460	460	460
0		(11) - R.(-) (11) - R.(-)	44.0	44.0	44.0	1.100	1,100	1,100		200	200	200	1,000	1,000	1,000	190	190	190	670	670	670	550	550	550	460	460	460
Sample ID	Date	(63)6r). 188 44	6.1	6'9	4.0	3.660	3.540	2,400		30.5	29.5	20.0	36.6	35.4	24.0	36.6	35.4	24.0	61.0	59.0	40.0	30.5	29.5	20.0	30.5	29.5	20.0
	and the set of the set	Sumble Depth	2.5	5.0	10.0	2.5	5.0	10.0	1	2.5	5.0	10.0	2.5	5.0	10.0	2.5	5.0	10.0	2.5	5.0	10.0	25	5.0	10.0	2.5	5.0	10.0
		(63/63): (63/63):	2.00	2.00	2.00	10.0	10.0	10.0	4	10.0	10.0	10.0	10.0	10.0	10.0	10,0	10,0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
And the second se		<u>VC</u> المراجع EPA Method 8260B in Soit	Benzene	Benzene	Benzene	1.2-Dichlorobenzene	1,2-Dichlorobenzene	1,2-Dichlorobenzene		1,1-Dichloroethane	1,1-Dichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethene	cis-1,2-Dichloroethene	cis-1,2-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	trans-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene (PCF)	Tetrachloroethene (PCE)	Tetrachloroethene (PCE)	Trichloroethene (TCE)	Trichloroethene (TCE)	Trichloroethene (TCE)

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NOTES:

VOC = Volatile Organic Compound

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Page 6 of 8

VOOD         Anticipation         Sectors				Sample ID	D	-	B61-2.5	B61-5.0	B62-2.5	B62-5-6	VIA4-16	EWM 25	GWH-540	GW8-2.5	GW8-5.0
NI         Some         MSN         Stat.		- Anno anno anno anno anno anno anno anno		Deto			5/37/2013	5/8/1/2013	5/31/2013	5/81/2013	6/7/2/016	51412013	S 42013	6/4/2043	6/4/20513
12.00         2.6         4.10         4.00         4.00         4.00         4.00         4.00         4.00         4.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00 <th< th=""><th>VOCs by EPA Method 8260B in</th><th>C.</th><th>Construction of the second s</th><th>APSSI</th><th>- 10 M</th><th>The solution</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></th<>	VOCs by EPA Method 8260B in	C.	Construction of the second s	APSSI	- 10 M	The solution									
2.00         2.5         6.1         44.0         4.0         ND         2.64         ND         3.24         ND	Soil	(631:08)	Depth	(110)150)	(1911-191)	(Pruss)	Particle Street and			VOC C	sucentration	(na/ka)			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	nzene	2.00	2.5	6.1	44.0	44.0	dN		2.54			3.24		QN	
2.00         1.00         4.0         4.0         4.0         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.	nzene	2.00	5.0	5.9	44.0	44.0		QN		QN			dN		QN
10.0         2.5         3.660         1,100         1,100         1,100         1,100         1,100         1,100         1,100         ND	nzene	2.00	10.0	4.0	44.0	44.0					Q				
10.0         5.0         3.540         1,100         1,100         1,100         1,100         1,100         1,100         1,100         1,100         1,100         1,100         1,100         1,100         1,100         1,100         1,100         1,100         1,100         1,100         1,100         1,100         1,100         1,100         1,100         1,000         ND         ND <td>2-Dichlorobenzene</td> <td>10.0</td> <td>2.5</td> <td>3,660</td> <td>1,100</td> <td>1,100</td> <td>QN</td> <td></td> <td>QN</td> <td></td> <td></td> <td>QN</td> <td></td> <td>QN</td> <td></td>	2-Dichlorobenzene	10.0	2.5	3,660	1,100	1,100	QN		QN			QN		QN	
10.0         10.0         10.0         1,00         1,100         1,100         1,100         1,100         1,100         1,100         1,100         1,100         1,100         1,100         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,0	2-Dichlorobenzene	10.0	5.0	3,540	1,100	1,100		dN		QN			QN		9
10.0         2.5         30.5         200         200         ND	2-Dichlorobenzene	10.0	10.0	2,400	1,100	1,100					QN				
10.0         5.0         29.5         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         1000         1000         1000         1000         1000         1000         1000         1000         1000         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100	-Dichloroethane	10.0	2.5	30.5	200	200	QN		Q			QN		QN	
10.0         10.0         20.0         200         200         ND	-Dichloroethane	10.0	5,0	29.5	200	200		QN		QN			QN		QN
10.0         2.5         36.6         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,0	-Dichloroethane	10.0	10.0	20.0	200	200					QN				
10.0         5.0         35.4         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,0	-Dichloroethene	10.0	2.5	36.6	1,000	1.000	Q		GN			QN		QN	
10.0         10.0         24.0         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,	-Dichloroethene	10.0	5.0	35.4	1,000	1,000		QN		QN			QN		QN
10.0         25         36.6         190         190         ND         ND         ND         120         10.6           10.0         5.0         35.4         190         190         ND         ND         ND         10.6           10.0         5.0         35.4         190         190         ND         ND         11.1         10.5           10.0         10.0         24.0         190         190         ND         ND         11.1         10.5           10.0         10.0         5.0         670         670         ND         ND         ND         ND         10.1           10.0         10.0         40.0         670         870         ND	-Dichloroethene	10.0	10.0	24.0	1,000	1,000					QN				
10.0         5.0         35.4         190         190         ND         ND         ND         10.5           10.0         10.0         24.0         190         190         ND         11.1         11.1         11.1         11.1           10.0         10.0         24.0         190         190         ND         ND         ND         11.1         10.5           10.0         10.0         5.0         67.0         670         ND         N	1,2-Dichloroethene	10.0	2.5	36.6	190	190	Ð		Q			120		Q	
	1,2-Dichloroethene	10.0	5.0	35.4	190	190		QN		an			10.5		QN
Ine         10.0         2.5         61.0         670         ND	1,2-Dichloroethene	10.0	10.0	24.0	190	190					11.1				
Ine         10.0         5.0         670         670         670         ND	s-1,2-Dichloroethene	10.0	2.5	61.0	670	670	QN		ND			QN		QN	
III:         10.0         10.0         40.0         670         670         670         670         70         71.8         ND	s-1,2-Dichloroethene	10.0	5.0	59.0	670	670		QN		qN			QN		gN
10.0       2.5       50.5       500       33.9       71.8       71.8       31.4       ND         10.0       5.0       29.5       550       700       33.9       34       13.3       31.4       ND         10.0       5.0       20.5       550       700       33.9       34       13.3       48.7       ND         10.0       10.0       20.5       560       700       33.9       24       13.3       48.7       ND         10.0       20.5       560       700       ND       22       48.7       ND       ND       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0       10.0	is-1,2-Dichloroethene	10.0	10.0	40.0	670	670					QN				
10.0       2.5       30.5       550       700       33.9       71.8       31.4       ND         10.0       5.0       29.5       550       700       33.9       34       13.3       31.4       ND         10.0       10.0       20.0       550       700       33.9       34       13.3       46.7       ND         10.0       10.0       20.0       550       700       ND       222       46.7       ND       ND       ND       10.0       16.0       16.0       16.0       16.0       16.0       16.0       ND       ND<															
10.0     3.0     700     3.4     13.3     48.7       10.0     10.0     20.0     550     700     31.6       10.0     2.5     30.5     460     ND     22       10.0     5.0     26.0     460     ND     22       10.0     5.0     29.5     460     100     20.0       10.0     5.0     29.5     460     ND     ND       10.0     10.0     20.0     460     100     ND	achloroethene (PCE)	10.0	2.5	30.5	550	002	33.9		71.8			31.4		2,960	
10.0         10.0         20.0         550         700           10.0         2.5         30.5         460         460         ND         22         46.7           10.0         5.0         23.5         460         ND         22         ND         ND           10.0         5.0         29.0         460         ND         ND         ND         ND	achioroemene (PUE)	0.01	0.0	C.82	000	00/		34		13.3			N		56.4
10.0         2.5         30.5         460         ND         22         31.6         ND           10.0         5.0         29.5         460         460         ND	achloroethene (PCE)	10,0	10.0	20.0	550	200					48.7				
10.0         5.0         29.5         460         460         ND         ND         ND           10.0         10.0         20.0         460         460         ND         ND         ND	hloroethene (TCE)	10.0	2.5	30.5	460	460	dN		22			31.6		56	
10.0 10.0 20.0 460 460	thioroethene (TCE)	10.0	5.0	29.5	460	460		QN		QN			QN		QN
	chloroethene (TCE)	10.0	10.0	20.0	460	460					QN				

NOTES:

VOC = Volatifie Organic Compound PQL = Practical Quantitation Limit ND = Indicated constituents not detected above the PQL ND<X = Indicated constituents not detected above the PQL of X

AFM SSL = LARWQCB Attenuation Method Site Screening Levels

µg/kg = micrograms per kilogram ESL - Ind. = SFRWQCB Industrial Eavironmental Screening Levels





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A REAL PROPERTY AND A REAL	and the second se		Sample ID	D .		GWISHIE
			Date	Print State Street and State State	and a second	6/4/2013
VOCS BY	いてわれい	日本のない				We com
EPA Method 8260B in	101	Seruple	AF SSL	ESL - Res	ESI, Inc.	Vele (Johc)
100	1007031	Deptu	(54)(54)	(EX/ER)	(10)Kg)	
Benzene	2.00	2.5	6.1	44.0	44.0	
Benzene	2.00	5.0	5.9	44.0	44.0	
Benzene	2.00	10.0	4.0	44.0	44.0	Q
1.2-Dichlorobenzene	10.0	2.5	3 660	1 100	1 100	
1.2-Dichlorobenzene	10.0	5.0	3.540	1.100	1.100	
1,2-Dichlorobenzene	10.0	10.0	2,400	1,100	1,100	QN
			2			
1,1-Dichloroethane	10.0	2.5	30.5	200	200	
	0.01	0.0	C.62	200	200	
1, 1-Uichloroethane	10.0	10.0	20.0	200	200	Q
1.1-Dichloroethene	10.0	2.5	36.6	1.000	1.000	
1,1-Dichloroethene	10.0	5.0	35.4	1,000	1,000	
1,1-Dichloroethene	10.0	10.0	24.0	1,000	1,000	QN
			-			
cis-1,2-Dichloroethene	10.0	2.5	36.6	190	190	
cis-1,2-Dichloroethene	10.0	5.0	35.4	190	190	
cis-1,2-Dichloroethene	10.0	10.0	24.0	190	190	Ð
trans-1,2-Dichloroethene	10.0	2,5	61.0	670	670	
trans-1,2-Dichloroethene	10.0	5.0	59.0	670	670	
trans-1,2-Dichloroethene	10.0	10.0	40.0	670	670	gN
Tetrachloroethene (PCE)	10.0	2.5	30.5	550	700	
Tetrachloroethene (PCE)	10.0	5.0	29.5	550	700	
Tetrachloroethene (PCE)	10.0	10.0	20.0	550	700	324
Trichloroethene (TCE)	10.0	2.5	30.5	460	460	
Trichloroethene (TCE)	10.0	5.0	29.5	460	460	
Trichloroethene (TCE)	10.0	10.0	20.0	460	460	g

NOTES:

VOC = Volatile Organic Compound

PQL = Practical Quantitation Limit

ND<X = Indicated constituents not detected above the PQL of X AFM SSL = LARWQCB Attenuation Method Site Screening Levels ND = Indicated constituents not detected above the PQL

µg/kg = micrograms per kilogram ESL - Ind. = SFRWQCB Industrial Environmental Screening Levels

DISCUSSION DRAFT



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TABLE 3 Soil Matrix Sample Results for Title 22 Metals 12922 Panama Street Los Angeles, California

		T	E	1 100		Rists Example		and a	1	2		C	1		1		-			5	-				4		1	5		ſ				_										
	mumorit) Tanvest	0.500	8.0	•	•	•	•	•	•	QN	QN	0.500	QN	•	QN	QN	•	•	•	•	•		•	•		•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
A AND A DEC. AND A DEC.	Arrowow	0.05	10	QN	ND	0.1250	QN	QN	QN	0.638	QN	•	QN	0.0703	0.0599	QN	0.0761	QN	0.0856	QN	0.1030	QN	0.0511	QN	DN	0.127	0.127	ND	0.0703	QN	0.066	Q	QN	DN	Q	DN	QN	DN	QN	ND	QN	QN	0.0703	QN
	purz	0.5	600	86.8	53.7	89.4	58.3	41.1	42.4	81.8	55.8	•	51	49.5	79.3	58.5	82.5	53.4	78.1	47.8	81.6	50.5	53.4	46.4	76.3	57.6	73.5	52.1	94.6	57.3	83.8	49.6	69.7	51.3	74.8	62.4	74.2	61,8	66.1	61.6	-	57.8		-
	mulberev	0.5	200	80.4	51.7	44.9	62.0	44.8	39.9	57.4	42.1	•	47.1	45.4	41.4	54,8	42.8	51.4	38.9	41.8	42.3	28.6	33.9	50.2	40.2	53.8	36.2	59.8	38.1	66.5	42	62.6	38.3	54	37.2	60.7	56.4	44	61.1	56.6	38.5	65.1	54.9	41.0
	unicus	0.5	10	Q	QN	QN	QN	DN	QN	ΟN	ND	•	ND	QN	QN	QN	dN	QN	ND	QN	QN	DN	Q	ND	ND	QN	ND	Q	g	QN	QN	QN	QN	QN	QN	Q	Q	g	QN	ND	QN	QN	QN	ND
the state of	an Alis	0.5	40	QN	QN	QN	QN	qN	QN	ΠN	QN	•	ND	ND	QN	ND	DN	ND	ND	ND	ND	ND	Q	ND	ΩN	QN	ND	QN	QN	QN	Q	Q	g	9	Q	Q	Q	ND	ND	ND	QN	QN	QN	QN
n Soil	umina 98.	0.5	10	QN	QN	QN	QN	QN	QN	QN	ND	•	QN	ND	QN	DD	Q	ND	QN	QN	DN	DN	QN	QN	QN	QN	ND	QN	QN	QN	QN	2	2	g	Q	QN	Q	ND	ND	ND	DN	QN	Q	Q
(աց/չքա) Ալլել/քա	Niekel	0.5	150	38.4	27.7	24.6	28.1	18.7	24.8	32.3	25.1	•	24.6	23.8	23,7	26.1	24.2	30.9	21.6	27.5	20.6	28.1	17.5	23.5	22.6	30.6	20.0	29.1	21.7	30.0	22.9	29.3	22.7	25.7	21,8	34.8	26.8	27.6	28.7	28.5	21.1	29.8	27.7	22.3
5/74715 d 7199.d	ណាមមក្ខភ្នាំស្ត្រ	0.5	40	5,24	0.978	0.792	4.50	ND	3.52	4.82	2.35	•	1.61	0.783	QN	1.85	0.778	0.955	QN	2.74	2.79	2.25	Q	3.02	Q	2.31	QN	5.02	Q	3.61	QN	4.77	Q	3.15	-	-		-	_	_		2.04	1.51	QN
od 60101 A Metho	pten		320		-			-		11.5		•	3.43	2.92	10.3	4.3	12.1	4.21	10.7			-				-			-	-	-	-	-	-+	-	-	8.11		-		-		-	-
<sup>a</sup> A Method 50 n by EPA Met	cobber	0.5	230	39.3	24.5	173	29.2	23.1	19.6	160	27.2	-	-	-	-		-	-	-	-	-	_	-	_		_	131	_	-	-		-	-	_	-	32.9	_	-	_	28.5	_		128	-
als by El Chromiur	410000	-	80	-	-	_	-		-		7.73	-	-	_			-	7.35	-	-	8.29	-		_	-	-	7.25	-			8.72	+	-	7.45	-	7.92	_	-	-	9.64 2	_	$\square$	8.75	-
itte 22 Metals by EPA exavalent Chromium	- Million and D	0.5	750	43.9	28.9	43.3	31.9	27.8	26.5	35.3	31.3	-	-	_	_	-			-	-		-		-	-	-	26.8	-		-	+	29.5	-	-	+	-	-	-	-	-	-			
and He	Флитрео	0.5	12.0	3.47	1.96	3.35	3.06	1.6	2.24	3.37	2.02		2.27	1.93	2.19	2.22	2.42	2.26	2.08	.93	.02	.35	.67	11	.95	.07	.84	3.1	.17	_	_	_	_		_				-	_	_	2.44	_	
	mulityrea	0.5		0.706	-	DN		-	-		DN	-	-	-	QN	-	-		-		-						ND	-	-		-		-	-	-	+	-	-	-	10	-		-	ND 1.
		-				_	-				_	-	1	-		-	-	-		_		-	-	_		-			-	-	+	+	-	_	-									-
	mil sä	Ŀ			_	_	-	_	_		124	_	146	_	106	_	106	_	-			_	-	_		_		_	_	_	_	_	_	113	_		_	74.2	113	_				62.4
	ี่ว <b>ไ</b> กออก4	0.25	0.96	14.4	8.68	3.37	12.8	2.54	4.68	7.51	6.05	•	4.28	6.71	1.49	_	_	_	_	3.82	3.38	-	+	8.74	1.47	7.11	1.75	11.1	3.09	13.3	1.94	12.4	0.388	9.67	1.03	8.46	5.83	2.96	6.38	10.3	6.75	11.5	7.16	2.62
	Vooranna	): 0.5		QN	QN	QN	DN	QN	ND	QN	Q	•	Q	QN	ND	QN	0.603	ND	0.605	QN	ND	Q	1.09	Q	Q	QN	Q	9	Q	Q	Q	2	2	9	Q	QN	Q	QN	QN	QN	QN	QN	g	QN
	Sample Dafe	PQL (mg/kg):	al/Industrial	4/26/2013	4/26/2013	4/25/2013	4/25/2013	4/25/2013	4/25/2013	4/29/2013	4/29/2013	4/29/2013	4/29/2013	4/29/2013	4/29/2013	4/29/2013	4/26/2013	4/26/2013	4/26/2013	4/26/2013	4/26/2013	4/26/2013	4/26/2013	4/26/2013	4/29/2013	4/29/2013	4/29/2013	4/29/2013	4/29/2013	4/29/2013	5/1/2013	5/1/2013	5/1/2013	5/1/2013	5/1/2013	5/1/2013	5/1/2013	5/1/2013	5/1/2013	5/1/2013	5/2/2013	5/2/2013	4/25/2013	4/25/2013
	Sample ID		ESLs - Commercial/Industrial	B1-5	B1-10	82-2.5	B2-5	B3-2.5	B3-5	B4-2.5	B4-5	B5-2.5	B5-5	B5-10	B6-2.5	B6-5	B7-2.5	87-5	B8-2.5	B8-5	B9-2.5	B9-5	B10-2.5	B10-5	B11-2.5	B11-5	B12-2.5	B12-5	B13-2.5	B13-5	B14-2.5	B14-5	B15-2.5	B15-5	B16-2.5	B16-5	B17-2.5	B17-5	B18-2.5	B18-5	B19-2.5	B19-5	B28-2.5	B28-5

ALTA ENVIRONMENTAL



TABLE 3 Soil Matrix Sample Results for Title 22 Metals 12922 Panama Street Los Angeles, California

	, паниоти" паниоти"	0.500	8.0	•				-					•	•		and the second s				-		. 10						6 M -			•	•	•	•	-	•	•	•	•	•	•	•		
	Атолем	0.05	10	QN	DN	QN	Q	0.0575	QN	QN	QN	QN	QN	UN	CIN	UN	GN	0.0537	QN	QN	QN	0.0714	QN	QN	QN	QN	QN	DN	0.0613	DN	QN	QN	0.0757			0 0ED	Zenin				UN.	QN	QN	QN
	antas	0.5	600	67.3	43.5	82.3	43	48.2	52.4	29.8	60.9	54.7	64.6	61	48.3	84.4	52.5	88.9	50.2	65.5	54	58.7	41.3	74	49	44	81.3	49.7	85.7	53.1	86.1	48.7	90.6	44.4	( Q. Q	20.02	0.0	0.10	02.4	0.50	70.8	59.7	72.2	66.8
	- an under the V	0.5	200	23.8	39.8	46.7	47.6	51.8	65.5	30.2	59.65	45.7	57.6	50.8	40.4	39.6	50.2	45.7	45.1	31.4	51.2	32.0	34.2	30.7	39.4	36.6	41.9	47.2	41.8	53.4	42.5	36.5	39.4	44.0	20.4	0.10	1 - 1 - 1	14.0	4.1	1.24	50.9	74.5	57.7	85.5
	tourile <b>n</b> el	0.5	10	QN	ND	QN	QN	QN	QN	QN	ND	QN	QN	QN	QN	QN	QN	QN	QN	QN	QN	QN	QN	qN	QN	QN	QN	QN	QN	9	Ð	QN											QN	QN
	JOWIS	0.5	40	QN	QN	QN	QN	QN	QN	DN	QN	Π	QN	QN	QN	QN	QN	QN	QN	QN	QN	QN	QN	QN	QN	QN	QN	Q	Q	Q	QN	ON.									n.		NN	QN
) in Soil	mu nueses.	0.5	10	ND	QN	QN	QN	QN	QN	DN	QN	QN	QN	QN	QN	QN	QN	QN	QN	QN	Q	QN	QN	ΩN	DN	DN	QN	Q	Q	g												NN	ND	QN
A (mg/kg (ma/kg)	IONDIN	0.5	150	14.2	21.3	23.7	22.1	16	34.5	9.69	32.2	24.8	31.9	28	22.2	20.6	26.1	24.3	20	14	22.2	13	19.9	15.4	19.5	18.1	20.5	27.7	20.1	23.1	21.7	52.3	20.9	0.1	0.5	101	00 00	2.24	23 5	20.07	23.5	33.2	26.8	38.9
0B/7471	ulmi apc Alogu	0.5	40	Q	1.23	1.06	2.47	5.07	0.743	. 0.711	3.37	1.17	0.846	2.57	0.884	QN	2.86	QN	4.09	1.68	2.52	1.54	2.51	1.54	0.936	0.902	QN	1.21	1.72	2.66				27-1	NU CE C		2.44		250	00.2	0.00	4.17	0.60	5.76
PA Meth	0801	0.25	320	11.1	3.10	18.90	3.61	22.70	3.78	4.27	4.21	3.34	2.53	4.01	2.72	10.90	3.70	9.58	3.53	9.05	3.77	8.71	3.24	9.11	3.83	2.90	9.43	3.42	14,4	3.55	57.6	3.09	13.0		0.0	12.8	3 08	11.0	2.02	00.0	0	5.47	10.6	5.64
tais by EPA Method 60 Chromium by EPA Meth	cobber	0.5	230	52.8	18.9	87.8	22.3	23.5	25.1	11.6	29.8	23.2	23.2	23.4	18.4	163	24.4	137	21.7	114	24.3	94.4	18.6	125	25	20.2	119	22.3	152	22.7	182	20.2	17.0	30.1	0.70	142	25.6	154	1010	11.0	1.11	34.6	81.8	38.1
etals by Chromi	1000	0.5	80	4.80	6.79	8.69	9	6.91	7.83	6.03	12.7	6.8	8.65	8,94	5.98	7.76	8.28	9,16	6.28	6.23	6.94	5.61	7.52	5.75	5.65	4.44	8.55	6.37	8.14	9.35	8.16	5.92	r 27	04 6	00.1	7 38	202	2 01 a	010	200	0.00	10.6	10.3	13.8
litte 22 Mi and Hexavalent	(mimord®	0.5	750	19.2	26.2	31.4	28.5	22.8	38.3	14	36.6	30.8	45.5	29.5	24.5	30.2	29.9	34.2	26.9	22.2	26.9	21.6	23.4	23.2	24.9	21.0	29.1	29.9	35.5	26.7	33.0	9.02	23.1	000	100	346	37.6	31.0	0.10	1.14	1.70	37.9	31.6	41.5
and	mutatos 3	0.5	12.0	1,41	1.63	2.47	2.44	1.57	2.27	1.02	2.5	1.58	2.18	2.23	1.71	2.00	2,16	2.30	1.97	1,47	1.69	1.42	1.55	1.56	1.56	1.58	2.17	1.96	2.57	2.20	2.16	2.40	14.7	1 77	1 00	9 39	2 06	203	1 24	101	20.2	3.04	RQ.7	3.71
	anni (geis	0.5					QN				0.576		ND		Q		QN					QN				1	Q		+	1		1	+				T_	+	+	╈	+	+	100.0	-
	unueg	0.5	1,500	81.3	71.5	124	134	147	139	-	-	115	89	140	64.9	101	149	116	80.8	89.1	95.5	89.8	82.1	94.4	70.6	75.8	119	106	105	88.3	116	04.4	112	04.80	107	103	+	+	129	107	+	+	1	171 0
	AINBRIA	0.25	-	4	_	_	_	_	5.22	-	_	2.68	_	_	4.48 E	_	L					_	2.63 8	_	_	_	2.66 1		1.5		-	2 20 2	-	-	+				_	+	+	+	+	_
	NUOL THY	-	+	_		-	+	-		-	-	-	-	-	-	-		$\vdash$	$\vdash$		ND 7.	-	+		ND 3.	+	1.15 2.		+	+	+	+	+	+	+	-	┢	-	+	+	+	+	+	1.71 0
			-	-	2	~	~	2	~	2	2	2	~	~	~	2	2	2	z	Z	Z	z	z	z	z	z	+	Z	Z	z								UN				Z		N
	Sample Date	PQL (mg/kg):	//Industrial	6/6/2013	6/6/2013	6/7/2013	6/7/2013	6/7/2013	6/7/2013	6/7/2013	6/7/2013	6/6/2013	6/6/2013	6/6/2013	6/6/2013	6/6/2013	6/6/2013	6/6/2013	6/6/2013	5/31/2013	5/31/2013	5/31/2013	5/31/2013	5/31/2013	5/31/2013	5/31/2013	6/6/2013	6/6/2013	6/6/2013	0/0/2013	0/0/2013	CI 07/0/0	6/6/2013	5/31/2013	5/31/2013	6/6/2013	6/6/2013	5/31/2013	5/31/2013	6/7/2013	6/1/2013	6/7/2013	01/12010	6///ZU13
	Sample ID		ESLs - Commercial/Industrial	B37-2.5	B37-5	B38-2.5	B38-5	B39-2.5	B39-5	B40-2.5	B40-5	B43-5	B43-10	B44-5	B44-10	B45-2.5	B45-5	B46-2.5	B46-5	B47-2.5	B47-5.0	B48-2.5	B48-5.0	B49-2.5	B49-5.0	B49-10.0	B50-2.5	850-5	B51-2.0	0-1-0	DDZ-2.0	D52 7 5	B53-5	B54-2 5	R54-5.0	B55-2.5	B55-5	B56-2.5	B56-5.0	R47_3 5	B67.5	B01-0	0.2-000	B30-3.U

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# TABLE 3 Soil Matrix Sample Results for Title 22 Metals · 12922 Panama Street Los Angeles, California

		1		1776		NO.			1			6		Concession of the	1			1			1	0	1	1	-	2	0	2	1	C	The state	_,			,		_	_					
	цалелены пливожно	0.500	8.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•				•		•		•	•		•	•	•	•	•	•	•		•		•	•	
	∕лпшө∦	0.05	10	QN	QN	ND	DN	QN	. dN	dΝ	ΠŊ	QN	QN	ΝD	QN	QN	Q	DN	DN	DN	Q	DN	ND	QN	QN	QN	QN	QN	9	QN	Q	QN	Q						ON ON			0170	ND CN
	צויופ	0.5	600	40.1	38.4	61.7	39.4	46.7	61.4	62	57.4	45	48,4	46.7	40.3	63.1	40.6	39.5	45.8	36.4	37.5	42.9	36.3	62.9	24,2	36.9	67.6	35.3	42	68.9	35.4	46.5	61.6	44.1	40.4	22.6	20.0	50.5	20.4	1.00	89.8	45.2	61.9
	mulbanev	0.5	200	22.8	29.7	38,4	29.4	34.8	55.5	69.1	49.7	44.0	42.5	45.4	40.2	34.3	47.5	42.1	35.9	48.1	41.6	28.2	41.4	34.1	34.7	41.3	41.4	34.6	47.6	66.7	40.1	45.0	32.6	41.4	0.00	50.7	23.1	0 14	0.10	27.5	0.17	44.0	61.3
	<u>minister</u>	0.5	10	DN	QN	DN	ND	ND	QN	QN	QN	ND.	QN	QN	QN	DN	QN	QN	ND	QN	QN	QN	Q	Q	Q	Q	Q	9	9	g	QN	Q											a du
	.⊖Aµs	0.5	40	QN	QN	QN	QN	ND	ΠD	ND	QN	QN	QN	QN	QN	ND	QN	QN	ND	QN	QN .	QN	QN	QN	QN	QN	QN	Q	Q	Q	2	R											
l) In Solf	uin uakus	0.5	10	QN	QN	QZ	QN	ND	DN	QN	QN	QN	ND	ND	QN	QN	ND	Q	ND	ND	QN	Q	Q	Q	QN	Q	QN	9	QN	Q	Q	QN											2 Q
A (mg/kg) (Ing/kg)	NIGKOIN.	0.5	150	10.8	14.2	17.9	15.1	11.2	31.7	31.2	28.4	23.6	19.3	24.9	22	15.6	24.3	21.5	14.7	23.1	19.9	12.9	20.4	16.9	14.8	21.5	19.4	17.3	23.3	16.5	20.6	24.3	16	40.4	24.4	10.4	0.01	20.4	44.00	0.02	0.00	1.12	3.08
08/7471/ od 7199	приврамой	0.5	40	QN	Q	2.25	0.534	1.61	2.67	QN	0.967	1.29	ND	1.55	0.67	0.609	1.12	0.868	1.82	0.957	ND	ΟN	Q	Q	0.543	QN	Q	Q	0.732	QN	2.84	0.769	QN,	t (				0 80E	CUN CIN		C.4	VID	2.60
hod 601 PA Meth	DEG	0.25	320	2.94	3.81	17.6	4.00	7.80	4.46	4.00	3.65	2.68	3.87	3.45	2.71	10.00	3.00	2.82	9.90	2.97	2.98	5.78	2.12	15.20	2.17	2.51	11.90	2.47	3.06	4.66	2.94	3.10	13.00	2.33	1 1 4	010	1 95	2 40	202	000	0.40	317	4.15
EPA Met um try El	cobbec	0.5	230	19.6	20.6	26.8	20.2	15.5	30.5	33.8	30.5	21.1	38.9	25.7	20.8	140	21.4	19	47.9	19.2	17.8	1.77	19.3	92.4	12.1	17.6	62.2	15.3	21.4	22.8	16.5	21.9	131	4.02	0.02	15.0	10.0	6 66	13	12.2	24 5	101	30.4
etals by Chromi	findoa	0.5	80	4.01	5.22	9.62	4.87	5.49	7.81	12	9.41	6.4	6.56	6.49	6.33	5.99	8.41	6.18	6.47	7.08	5.59	4.45	5.09	6.03	4.27	6.53	6.63	5.09	7.23	8.86	7.53	7.66	5.36	1.0	P.0	0.0	100	7 06	0001	44.4	41.1	R 54	8.53
Title 22 Metals by EP Hexavalent Chromium	мишелир	0.5	750	16.8	19.8	24.2	19.9	17.3	39.7	40.4	35.5	25	29.2	30.6	23.8	27.4	24.9	23	20.6	24.1	25.6	21	29.4	23.9	17.3	22.5	27.4	20.6	28	31.2	23.4	28.2	26.2	0.00	0.00	5.02	25.8	30 E	18.6	0.01	33 E	33.1	35.5
and	mul <b>mbað</b>	0.5	12.0	1.05	1.27	1.69	1.38	1.15	2.76	2.34	1.78	1.68	1.65	1.72	1.7	1.85	1.76	1.52	1.37	1.58	1.56	1.32	1.27	1.68	1.27	1.61	1.93	1.48	1.78	2.23	1.65	1.96	1.7.1	701	1.04	1 00	1 97	1 80	1 2	1 4 4	7 BC	2 38	2.67
	tu) nill (nag	0.5	8.0	QN	Q						0.507								QN		Q		Q						T					1				t	┢	+	+	+	-
	inultuiä.	0.5	1,500	68.4	78.1	96.6	71.7	78.1	173	130	124	76.7	86.6	94.7	100	101	163	56.7	96.5	139	70.8	74.6	73.3	105	80.6	57.4	105	65.6	90.6	72.4	108	98.4	97.9	20	0.101	80.2	64.8	91 1	4 4	101	+	115	+
	o luoraty c	0.25		1.39	$\downarrow$	-	2.68	1.17	3.76	9	-	_	-		_	_	_	5.78	_	_	_	-	-	-	-	-	-	+	-	_	-	+	2.01	_	+	_	+	+	-	-	-	-	-
	Каоптану	-		-	_	+		-	-	-	-	-		-	-	QN		2 ND		QN	-	-		-	1.25	-	-	-	-	+	-	+		+	+	+		┝	+	+	-	+	+
	Sample Date	ng/kg):				-	-				_		_	_	_				-													1	6/28/2013 P	┢									t
	Sample ID		ESLs - Commercial/Industrial	B61-2.5	B61-5.0	B62-2.5	B62-5.0	B63-2.5	B63-5	B64-2.5	B64-5	B64-10	B65-2.5	B65-5	B65-10	B66-2.5	B66-5	B66-10	B67-2.5	B67-5	B67-10	B68-2.5	B68-5	B69-2.5	B69-5	B69-10	B70-2.5	B70-5	B70-10	B71-2.5	B/1-5	B/ 1-1U	B/ Z-Z,D	B70-10	B72.7 6	B73-5	B73-10	V1-10	V1-15	V1-20	WP-B	GW1-2 5	GW1-5

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TABLE 3	Soil Matrix Sample Results for Title 22 Metals	12922 Panama Street	Los Angeles, California
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						E	1					C	Lawer	3	Cor.	10.25	-			Ç	-	C	AL	3 Star	4		6		
	тыбечежен тшилотяЮ	0.500	8.0	•	•	•	18 •	0	•	•		•	•			100	A. S. S.	Ø	н					222					
	Алагор	0.05	10	QN	QN	QN	QN	QN	0.0517	QN	QN	QN	QN													u			
, , , ,	Pulz	0.5	600	54.7	48.6	65.2	70.7	62.5	100	38,6	82.5	53.0	39.3																
	Banilgeria	0.5	200	53	38.7	73	59.8	48.7	74.5	35.1	42.8	36.0	37.4																
	unmeus	0.5	10	QN	DN	DN	DN	ND	ND	QN	QN	QN	QN																
	10 AILS	0.5	40	ΩN	QN	QN	ND	ND	ND	QN	QN.	QN	QN																
in Soil	mulnele2	0.5	10	QN	ND	QN	Q						ater using	3															
7199 (ma/kg) 1	Indrati	0.5	150	26.2	20.4	32.3	29.6	28.9	38.8	17.5	22.3	19.8	20.7						d Groundwa										
	шпаюрауюц	0.5	40	QN	1.31	3.31	1.44	1.11	2,01	0.885	1,50	0.682	0.621						ted Soll and										
EPA Method	peon	0.25	320	2.26	3.09	4.46	4.64	3.63	5.48	4.99	3.88	7.31	2.78						Contámina										
ium by E	.an(dog)	0.5	230	23.D	18.6	32.1	29.1	24.2	36.2	27.1	96.0	161	16.9						at Site with										
nt Chrom	COPULA	0.5	80	6.28	5.54	8.36	9.72	9.28	12.3	5.76	6.27	5.97	6.41						I Concerns	2									
exavale	ти и шожи Э	0,5	750	43.5	21.7	37.5	33.2	31.9	44	20.7	22.1	21.7	21.2						Environmenta	Drinking Wate	1								
and H	muir (b62)	0.5	12.0	1.91	1.62	3	2.67	2.73	3.13	1.37	2.26	1.54	1.58						reening for	al Source of									
	unulikag	0.5	8.0	QN	Q	0.578	0.523	QN	0.608	QN	QN	ND	QN						Region's Sc	t or Potentia									
	MALIBE	0.5	1,500	85.7	60.1	166	134	119	163	103	74.4	98.8	70.4						rancisco Bay F	vater is Curren									
	วเกอะเA	0.25	0.96	60.7	6.07	12.8	9.4	13.3	8.66	4.06	5.05	5.26	6.4						QCB-San F	ls. Groundy									
	Ano: JuA		40	QN	-	QN	0.544	Q	1.4	Q	Q	QN	1.19			/e the PQL			n the CRW	Shallow Soil									
	Sample Date	PQL (mg/kg):	ial/industrial	6/4/2013	6/4/2013	6/5/2013	6/5/2013	6/5/2013	6/5/2013	6/4/2013	6/4/2013	6/4/2013	6/4/2013		kilogram	ND = Indicates constituent not detected at or above the PQL	ation Limit		ESLs = Environmental Screening Levels, based on the CRWQCB-San Francisco Bay Region's Screening for Environmental Concerns at Site with Contaminated Soil and Groundwater using	Summary Table A (May 2013) - ESLs in Shallow Soils. Groundwater is Current or Potential Source of Drinking Water									
	Sample (D		ESLs - Commercial/Industrial	GW1-10	GW1-14	GW2-2.5	GW2-5	GW2-10	GW2-15	GW3-2.5	GW3-5	GW3-10	GW3-15	NOTES:	mg/kg = milligrams per kilogram	ND = Indicates constitue	PQL = Practical Quantitation Limit	• = Not Analyzed	ESLs = Environmental S	Summary Table									



	and the second	Sample	TPHcc by I	EPA Method 80	015M in Soil
Sample ID	Sample	Depth	TPH-GRO	and the second se	TPH-ORO
	Date	(feet hgs)	(C4-C12)	(010-028)	(C28 38B+)
	D/	QL (mg/kg):	(ma/ka)	(ma/ka)	(mg/kg)
B1-5	4/26/2013		0.500	10.0	50.0
B1-10		5	ND	ND	NDND
B1-10 B2-2.5	4/26/2013	10	ND	ND	ND
B2-2.5 B2-5	4/25/2013	2.5	ND	ND	ND
B3-2.5	4/25/2013	5	ND	ND	ND
B3-5	4/25/2013	2.5	ND	ND	ND
B4-2.5	4/29/2013	5	ND	ND	ND
B4-5		2.5	ND	ND	ND
B5-10	4/29/2013	5	ND	ND	ND
B5-5	4/29/2013	10	ND	ND	ND
B6-2.5		5	ND	ND	ND
B6-5	4/29/2013	2.5	ND	ND	ND
B7-2.5		5	ND	ND	ND
B7-5	4/26/2013	2.5	ND	ND	ND
B8-2.5	4/26/2013	5	ND	ND	ND
B8-5	4/26/2013	2.5	ND	ND	ND
B9-2.5	4/26/2013	5	ND	ND	ND
B9-2.5 B9-5	4/26/2013	2.5	ND	ND	ND
B10-2.5	4/26/2013	5	ND	ND	ND
B10-2.5 B10-5	4/26/2013	2.5	ND	ND	ND
B11-2.5	4/26/2013	5	ND	ND	ND
B11-2.5 B11-5	4/29/2013	2.5	ND	ND	ND
B12-2.5	4/29/2013	5	ND	ND	ND
B12-2.5 B12-5	4/29/2013	2.5	ND	ND	ND
B12-5 B13-2.5	4/29/2013	5	ND	ND	ND
B13-2.5	4/29/2013	2.5	ND	ND	ND
B13-5 B14-2.5	4/29/2013	5	ND	ND	ND
	5/1/2013	2.5	ND	ND	ND
B14-5	5/1/2013	5	ND	ND	ND
B15-2.5	5/1/2013	2.5	ND	ND	ND
B15-5	5/1/2013	5	ND	ND	ND
B16-2.5	5/1/2013	2.5	ND	ND	ND
B16-5	5/1/2013	5	ND	ND	ND
B17-2.5	5/1/2013	2.5	ND	ND	ND
B17-5	5/1/2013	5	ND	ND	ND
318-2.5	5/1/2013	2.5	ND	ND	ND
318-5	5/1/2013	5	ND	ND	ND
319-2.5	5/2/2013	2.5	ND	ND	ND
B19-5	5/2/2013	5	ND	ND	ND
B28-2.5	4/25/2013	2.5	ND	ND	ND
B28-5	4/25/2013	5	ND	ND	ND

#### NOTES:

ND = Indicates constituents not detected above the PQL

PQL = Practical Quantitation Limit

TPH-GRO = total petroleum hydrocarbons as gasoline range organics

TPH-DRO = total petroleum hydrocarbons as diesel range organics

TPH-ORO = total petroleum hydrocarbons as oil range organics

mg/kg = milligrams per kilogram

bgs = Below ground surface



VOCs in Soil	Sample (D) Date:	and the second se	(31-10)	82.2.5	82-6	B3 2.5	83.5	84.2.5
by EPA Method 8260B		4/26/2013	4/26/2013	4/25/2013	4/25/2013	4/25/2013	4/26/2013	4/29/2013
Acetone	12.4). (((d)(12)): 50.0	ND	ND		oncentration	And and a second s	Contraction of the	
Benzene	2.00	ND	ND	65.7 ND	ND ND	103	ND	ND
Bromobenzene (Phenyl bromide)	10.0	ND	ND	ND	ND	ND ND	ND	ND
Bromochloromethane (Chlorobromomethane)	10.0	ND	ND	ND	ND	ND ND	ND ND	ND
Bromodichloromethane (Dichlorobromomethane)	10.0	ND	ND	ND	ND	ND	ND ND	ND ND
Bromoform (Tribromomethane)	50.0	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	30.0	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK, Methyl ethyl ketone)	50.0	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	10.0	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride (Tetrachloromethane) Chlorobenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Chloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	30.0	ND	ND	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	50.0	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	30.0	ND ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene (p-Chlorotoluene)	10.0	ND ND	ND ND	ND	ND	ND	ND	ND
2-Chlorotoluene (o-Chlorotoluene)	10.0	ND ND		ND ND	ND	ND ND	ND ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	50.0	ND	ND	ND	ND ND	ND ND	ND ND	ND
Dibromochloromethane	10.0	ND ND	ND	ND	ND	ND ND	ND ND	ND ND
1,2-Dibromoethane (EDB, Ethylene dibromide)	10.0	ND	ND	ND	ND	ND	ND ND	ND ND
Dibromomethane	10.0	ND	ND	ND	ND	ND	ND ND	ND ND
1,2-Dichlorobenzene (o-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene (m-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene (p-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	30.0	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	10.0	ND	ND	ND	ND .	ND	ND	ND
1,2-Dichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (1,1-Dichloroethylene)	10.0	ND	ND	NDND	ND	ND	ND	ND
cis-1,2-Dichloroethene	10.0	ND	ND	ND	ND	ND	ND	ND
rans-1,2-Dichloroethene	10.0	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	10.0	ND ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	10.0		ND ND	ND	ND	ND	ND	ND
rans-1,3-Dichloropropene	10.0	ND	ND ND	ND	ND	ND	ND	ND
Ethylbenzene	2.00	ND ND	ND	ND ND	ND	ND	ND	ND
exachlorobutadiene (1,3-Hexachlorobutadiene)	30.0	ND	ND	ND	ND ND	ND	ND	ND
2-Hexanone	50.0	ND	ND	ND	ND	ND ND	ND ND	ND
sopropylbenzene	10.0	ND	ND	ND	ND	ND ND	ND ND	ND ND
-Isopropyltoluene (4-Isopropyltoluene)	10.0	ND	ND	ND	ND	ND	ND ND	ND
MTBE	5.00	ND	ND	ND	ND	ND	ND ND	ND ND
-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)	50.0	ND	ND	ND	ND	ND	ND ND	ND
Methylene chloride (Dichloromethane, DCM)	50.0	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10.0	ND	ND	ND	ND	ND	ND	ND
1-Propylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Styrene	10.0	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (Tetrachloroethylene) {PCE}	10.0	ND	ND	ND	ND	ND	ND	110
Toluene (Methyl benzene)	2.00	ND	ND	ND	ND	ND	ND	ND
I,2,3-Trichlorobenzene I,2,4-Trichlorobenzene	10.0	ND	ND	ND	ND	ND	ND	ND
,1,1-Trichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,1-Trichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (TCE)	10.0	ND	ND	ND	ND	ND	ND	ND
richlorofluoromethane	10.0	ND	ND ND	ND	ND	ND	ND	300
,2,3-Trichloropropane	10.0	ND	ND ND	ND	ND	ND	ND	ND
I,2,4-Trimethylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
/inyl acetate	10.0	ND ND	ND ND	ND ND	ND	ND	ND	ND
/inyl chloride (Chloroethene)	30.0	ND ND	ND	ND	ND	ND	ND	ND
-Xylene	2.00	ND	ND ND	ND	ND	ND	ND	ND
m- & p-Xylenes	4.00	ND	ND	ND ND	ND ND	ND ND	ND	ND

NOTES:

VOC = Volatile Organic Compound

VOC = Volatile Urganic Compound PQL = Practical Quantilation Limit ND = Indicated constituents not detected above the PQL of X ND<X = Indicated constituents not detected above the PQL of X



Strategy and the second strategy and the	Statemples (D)		136, 18	85.5	86-4.5	86-5	122-2.5	B7-5
VOCs in Soil	Dater	(4/249)/2013	4/29/2013	4121121193	4/29/2013	4/29/2013	4/26/2013	4/2012013
hy EPA Method 8260B	(Pip)L ((Lettu))	ND.	110		encentration			
Benzene	50.0 2.00	ND ND	ND ND	ND	ND	ND	ND	ND
Bromobenzene (Phenyl bromide)	10.0	ND	ND	ND ND	ND ND	ND ND	ND	ND
Bromochloromethane (Chlorobromomethane)	10.0	ND	ND	ND	ND	ND	ND ND	ND ND
Bromodichloromethane (Dichlorobromomethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Bromoform (Tribromomethane)	50.0	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	30.0	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK, Methyl ethyl ketone)	50.0	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	10.0	ND ND	ND ND	ND ND	ND	ND	ND	ND
Carbon tetrachloride (Tetrachloromethane)	10.0	ND	ND	ND ND	ND ND	ND	ND	ND
Chlorobenzene	10.0	ND	ND	ND	ND	ND ND	ND ND	ND
Chloroethane	30.0	ND	ND	ND	ND	ND		ND ND
2-Chloroethyl vinyl ether	50.0	ND	ND	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	30.0	ND	ND	ND	ND	ND	ND	ND
-Chlorotoluene (p-Chlorotoluene)	10.0	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene (o-Chlorotoluene)	10.0	ND	ND	ND	ND	ND	ND	ND
I,2-Dibromo-3-chloropropane (DBCP) Dibromochloromethane	50.0	ND	ND	ND	ND	ND	ND	ND
1.2-Dibromoethane (EDB, Ethylene dibromide)	10.0	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	10.0	ND ND	ND ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene (o-Dichlorobenzene)	10.0	ND ND	ND ND	ND ND	ND	ND	ND	ND
1,3-Dichlorobenzene (m-Dichlorobenzene)	10.0	ND	ND	ND	ND ND	ND ND	10.3	107
1,4-Dichlorobenzene (p-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	30.0	ND	ND	ND	ND	ND	ND	ND ND
t,1-Dichloroethane	10.0	ND	ND	ND	ND	ND	10.1	ND
,2-Dichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (1,1-Dichloroethylene)	10.0	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	10.0	ND	ND	ND	ND	ND	204	69.4
rans-1,2-Dichloroethene	10.0	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	10.0	ND ND	ND ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	10.0	ND	ND	ND ND	ND ND	ND	ND	ND
cis-1,3-Dichloropropene	10.0	ND	ND	ND	ND	ND ND	ND ND	ND
rans-1,3-Dichloropropene	10.0	ND	ND	ND	ND	ND	ND	ND ND
Ethylbenzene	2.00	ND	ND	ND	ND	ND	ND	ND
lexachlorobutadiene (1,3-Hexachlorobutadiene)	30.0	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	50.0	ND	ND	ND	ND	ND	ND	ND
sopropylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
o-isopropyltoluene (4-isopropyltoluene)	10.0	ND	ND	ND	ND	ND	ND	ND
	5.00	ND	ND	ND	ND	ND	ND	ND
-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone) Methylene chloride (Dichloromethane, DCM)	50.0	ND ND	ND	ND	ND	ND	ND	ND
Naphthalene	50.0	ND ND	ND	ND	ND	ND	ND	ND
h-Propylbenzene	10.0	ND ND	ND ND	ND	ND	ND	ND	ND
Styrene	10.0	ND	ND	ND ND	ND ND	ND ND	ND ND	ND ND
1,1,2-Tetrachloroethane	10.0	ND ND	ND	ND ND	ND	ND	ND ND	ND
1,1,2,2-Tetrachloroethane	10.0	ND	ND	ND	ND	ND	ND	ND ND
Fetrachloroethene (Tetrachloroethylene) {PCE}	10.0	10.7	ND	ND	30.0	ND	ND ND	ND
Toluene (Methyl benzene)	2.00	ND	ND	ND	ND	ND	ND	ND
2,3-Trichlorobenzene	10.0	ND	ND	ND	ND	ND	ND	ND
2,4-Trichlorobenzene	10.0	ND	ND	ND	ND	ND	ND	ND
,1,1-Trichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,2-Trichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
richloroethene (TCE)	10.0	31.4	ND	ND	58.0	ND	ND	ND
,2,3-Trichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
2,4-Trimethylbenzene	10.0	ND ND	ND	ND	ND	ND	ND	ND
3,5-Trimethylbenzene	10.0	ND ND	ND	ND	ND	ND	ND	ND
/invl acetate	50.0	ND ND	ND ND	ND ND	ND	ND	ND ND	ND
Vinyl chloride (Chloroethene)	30.0	ND	ND	ND ND	ND ND	ND	ND	ND ND
p-Xylene	2.00	ND	ND	ND	ND	ND ND	ND ND	ND
m- & p-Xylenes	4.00	ND	ND	ND	ND ND	ND	ND ND	ND ND

NOTES:

VOC = Volatile Organic Compound

PQL = Practical Quantitation Limit

ND = Indicated constituents not detected above the PQL

ND<X = Indicated constituents not detected above the PQL of X



by #PA Vehicula 8400.         Mol. Proc.         VOCE Concentration (basics)         No.	VOCs in Soil	Sample ID. Date:	B8-2.5 4/26/2013	38-5 4/26/2013	89-2,5 4/26/2013	89-5 4/26/2013	B10-2/5	B10-5 4/26/2013	Bill-215 4/29/2013
Baseline         69.0         63.2         ND         ND-250         ND         <		(Fight (tip))			VOC C			and the second s	The set of the
Baseme         2.00         ND         <			63.2	ND				ND<1000	ND
Symbolic Check         ND         ND-560         ND         ND-560         ND         ND-560			ND	ND	ND<10	the second se			
Datable Librogenergenergenergenergenergenergenergen				ND	ND<50				
Bandbalan Angeler (Unit and Control Angeler)         60.0         ND         ND <th< td=""><td></td><td></td><td></td><td>ND</td><td>ND&lt;50</td><td>ND</td><td></td><td></td><td></td></th<>				ND	ND<50	ND			
International Informational         60.0         ND         NO         ND				ND	ND<50	ND			
International (VPI) (Englished Phylecolarbo)         50.4         ND         ND <th< td=""><td></td><td></td><td></td><td>ND</td><td>ND&lt;250</td><td>ND</td><td></td><td></td><td></td></th<>				ND	ND<250	ND			
Data Biol         Number         No         ND				ND	ND<150	ND			
Description         Description         ND         ND <td></td> <td></td> <td></td> <td>ND</td> <td>ND&lt;250</td> <td>ND</td> <td></td> <td></td> <td></td>				ND	ND<250	ND			
Description         10.0         ND		10.0	ND	ND	ND<50				
Bits Description         ID         ND				ND	ND<50	ND			
allocit         ND         ND <t< td=""><td></td><td>10.0</td><td>ND</td><td>ND</td><td>ND&lt;50</td><td></td><td></td><td></td><td></td></t<>		10.0	ND	ND	ND<50				
altern         no.         no.<		10.0	ND	ND	ND<50	ND	ND<500		
Debogeneration         10.0         ND				ND	ND<50	ND			
andcomment         30.0         ND         ND<         ND<         ND<		10.0	ND	ND	ND<50	ND			
Chino Berly Mry ether         60.0         ND         ND         ND         ND         Control         ND         <				ND	ND<150	ND			
Induced (Inchordentance)         10.0         ND         ND <th< td=""><td></td><td>50.0</td><td>ND</td><td>ND</td><td>ND&lt;250</td><td>ND</td><td></td><td></td><td></td></th<>		50.0	ND	ND	ND<250	ND			
Alledomethane (Methyl chorde)         30.0         ND		10.0	ND	ND	ND<50				
Chicotoluene (- Chicotoluene)         10.0         ND	hloromethane (Methyl chloride)	30.0	ND	ND	ND<150				
Chinorolutene (C-Dirotonivene)         10.0         ND		10.0	ND	ND					
2.2bicrono-3-chloropspane (DBCP)         65.0         ND		10.0							
Ibiomochloromethane         10.0         ND         ND × 500		50.0	ND						
2-Distromediane (ED8, Ethylene disronide)         10.0         ND		10.0	ND						
bitromenthane         10.0         ND		10.0							
2-Dichlorobenzene)         10.0         17.3         66.6         77.0         NO         NO-200         NO           3-Dichlorobenzene (m-Dichlorobenzene)         10.0         ND         ND <td< td=""><td></td><td>10.0</td><td>ND</td><td></td><td></td><td></td><td></td><td></td><td></td></td<>		10.0	ND						
3-Dehthordsenzene (m-Dichlorobenzene)         10.0         ND         ND <td></td> <td>10.0</td> <td></td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td></td>		10.0				1			
4-Dichlorobenzene ()-Dichlorobenzene)         10.0         ND         ND <td>3-Dichlorobenzene (m-Dichlorobenzene)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	3-Dichlorobenzene (m-Dichlorobenzene)								
Dichtorodiftuoromethane         30.0         ND	4-Dichlorobenzene (p-Dichlorobenzene)								
1-Dichloroethane         10.0         ND           2-Dichloroethane         10.0         ND	ichlorodifluoromethane								
2-Dichloroethane         10.0         ND	1-Dichloroethane								
1-Dichloroethene (1,1-Dichloroethylene)         10.0         ND         ND         ND         ND         Sign         ND         Sign         ND         Sign           ans-1_2-Dichloroethene         10.0         ND         ND         ND         1190         107         ND<500	2-Dichloroethane								
is-1.2-Dichloroethene         10.0         ND         N	1-Dichloroethene (1,1-Dichloroethylene)								
ans-1,2-bichloroethene         10,0         ND         ND-50         ND         ND-500         ND-200         ND           3-Dichloropropane         10,0         ND         ND         ND-500         ND-200         ND           3-Dichloropropane         10,0         ND         ND         ND-500         ND-200         ND           3-Dichloropropane         10,0         ND         ND         ND-50         ND         ND-200         ND           3-Dichloropropene         10,0         ND         ND         ND-50         ND         ND-200         ND           is-1.3-Dichloropropene         10,0         ND         ND         ND-50         ND         ND-500         ND-200         ND           ithylicorgonopene         10,0         ND         ND         ND-50         ND         ND-500         ND-200         ND           ithylicorgonopene         10,0         ND         ND         ND-160         ND         ND-500         ND-4500         ND-4500         ND-4500         ND         ND									
2-Dichloropropane         10.0         ND         ND <td>ans-1,2-Dichloroethene</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	ans-1,2-Dichloroethene								
3-Dichloropropane         10.0         ND         ND <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
2-Dichloropropane         10.0         ND         ND <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
1-Dichloropropene         10.0         ND         ND <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td>								-	
isit         isit         it         it<         it<<         it<									
ans-1.3-Dichloropropene         10.0         ND									
Ithylenzene         ND									ND
exacthorobutadiene (1,3-Hexachlorobutadiene)         30.0         ND         ND <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>									
Hexanone         B0.0         ND									ND
sopropylbenzene         100         ND								ND<600	ND
Isopropyltoluene (4-Isopropyltoluene)         10.0         ND         ND <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>ND&lt;1000</td> <td>ND</td>								ND<1000	ND
ITBE         ITD         IND         IND <thind< th=""> <thiid< th=""></thiid<></thind<>								ND<200	ND
Methyl-2-pentanone (MIBK, Methyl Isobutyl Ketone)         5.00         ND								ND<200	ND
Methylene chloride (Dichloromethane, DCM)         50.0         ND							ND<250	ND<100	ND
Iaphthalene         100         ND							ND<2500	ND<1000	ND
Propylbenzene         ND						ND	ND<2500	ND<1000	ND
PhotyDefiziene         10.0         ND						ND	ND<500	ND<200	ND
Intervent         10.0         ND						ND	ND<500	ND<200	
1,1,2-Tetrachloroethane         10.0         ND					ND<50	ND	ND<500	ND<200	
1.1.2.2-1 etrachioroethane         10.0         ND         <						ND	ND<500		
efrachloroethene (Tetrachloroethylene) (PCE)         10.0         316         66.2         725         29.6         40,600         10,500         133           oluene (Methyl benzene)         2.00         ND         ND         ND         ND         ND         ND         ND         ND         316         65.2         725         29.6         40,600         10,500         133           cluene (Methyl benzene)         2.00         ND         ND         ND         ND         ND         ND         ND         3.06           2,3-Trichlorobenzene         10.0         ND         ND         ND         ND         ND         S0.0         ND         ND         2.00         ND           2,4-Trichlorobenzene         10.0         ND         ND         ND         ND         ND         S0.0         ND         2.00         ND           1,1-Trichloroethane         10.0         ND         ND         ND         S0.0         ND         2.00         ND           1,2-Trichloroethene (TCE)         10.0         34.0         ND         452         11.3         ND<200		10.0	ND	ND	ND<50				
oluene (Methyl benzene)         2.00         ND	trachioroethene (Tetrachloroethylene) (PCE)			65.2	725	29.6			
2.3-Trichlorobenzene         10.0         ND         ND<				ND	ND<10				
12.4-1 Inchlorobenzene         10.0         ND         N				ND					
1.1-Trichloroethane         10.0         ND         ND </td <td></td> <td></td> <td>ND</td> <td>ND</td> <td>ND&lt;50</td> <td></td> <td></td> <td></td> <td></td>			ND	ND	ND<50				
1,2-Trichloroethane         10.0         ND         ND </td <td>the second se</td> <td>10.0</td> <td>ND</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	the second se	10.0	ND						
richloroethene (TCE)         10.0         34.0         ND         452         11.3         ND<200         ND<200         69.2           richlorofluoromethane         10.0         ND         ND         ND         ND<500		10.0							
nichlorofluoromethane         10.0         ND         ND         ND         ND         ND         ND         State         St									
2.3-Trichloropropane         10.0         ND         ND<									
10.0         ND         N									
3,5-Trimethylbenzene         10.0         ND         ND<	2.4-Trimethylbenzene								the second se
invl acetate         Div         ND									
Solid         ND	inyl acetate								
-Xylene 2.00 ND ND ND<100 ND<100 ND<40 ND	nyl chloride (Chloroethene)								
- & p-Xvlenes do ND ND ND ND ND<40 ND		0010		IND .	UCLOU	INU I	ND<1500	NU<600	ND
4.00 NU ND ND<20 ND ND<200 ND<80 ND		2.00	ND	ND 1	ND-10 1	NE			

NOTES:

VOC = Volatile Organic Compound PQL = Practical Quantilation Limit

ND = Indicated constituents not detected above the PQL ND<X = Indicated constituents not detected above the PQL of X µg/kg = micrograms per kilogram



VOCs in Spil	Sample ID: Date:	811-5 4/29/2018	B12-2.5 4/29/2013	B12-5 4/29/2013	Bit 3-2-5 4/29/2013	613-5 Adde 2012	B14-2.5	B14-5
by EPA Methon 8260B	+(a): ((( <u>(</u> , ( <u>)</u> ))	and of the state of the		and the second se	oncentration	4/19/2013	5/1/2013	6/1/2018
Acetone	50.0	NĎ	ND<250	ND	ND<250	ND	101	ND
Benzene	2.00	ND	ND<10	ND	ND<10	ND	2.28	ND ND
Bromobenzene (Phenyl bromide)	10.0	ND	ND<50	ND	ND<50	ND	ND	ND
Bromochloromethane (Chlorobromomethane)	10.0	ND	ND<50	ND	ND<50	ND	ND	ND
Bromodichloromethane (Dichlorobromomethane)	10.0	ND	ND<50	ND	ND<50	ND	ND	ND
Bromoform (Tribromomethane)	50.0	ND	ND<250	ND	ND<250	ND	ND	ND
Bromomethane (Methyl bromide)	30.0	ND	ND<150	ND	ND<150	ND	ND	ND
2-Butanone (MEK, Methyl ethyl ketone) n-Butylbenzene	50.0	ND	ND<250	ND	ND<250	ND	ND	ND
sec-Butylbenzene	10.0	ND	ND<50	ND	ND<50	ND	ND	ND
tert-Butylbenzene	10.0	ND	ND<50	ND	ND<50	ND	ND	ND
Carbon disulfide	10.0	ND	ND<50	ND	ND<50	ND	ND	ND
Carbon tetrachloride (Tetrachloromethane)	10.0	ND ND	ND<50	ND	ND<50	ND	ND	ND
Chlorobenzene	10.0	ND	ND<50 ND<50	ND	ND<50	ND	ND	ND
Chloroethane	30.0	ND	ND<50	ND ND	ND<50	ND	ND	ND
2-Chloroethyl vinyl ether	50.0	ND	ND<150	ND	ND<150 ND<250	ND	ND	ND
Chloroform (Trichloromethane)	10.0	ND	ND<50	ND	ND<250	ND ND	ND	ND
Chloromethane (Methyl chloride)	30.0	ND	ND<150	ND	ND<50	ND ND	ND	ND
4-Chlorotoluene (p-Chlorotoluene)	10.0	ND	ND<50	ND	ND<150	ND ND	ND ND	ND
2-Chlorotoluene (o-Chlorotoluene)	10.0	ND	ND<50	ND	ND<50	ND	ND ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	50.0	ND	ND<250	ND	ND<250	ND	ND	ND ND
Dibromochloromethane	10.0	ND	ND<50	ND	ND<50	ND	ND ND	
1,2-Dibromoethane (EDB, Ethylene dibromide)	10.0	ND	ND<50	ND	ND<50	ND	ND	ND ND
Dibromomethane	10.0	ND	ND<50	ND	ND<50	ND	ND	ND
1,2-Dichlorobenzene (o-Dichlorobenzene)	10.0	ND	120	ND	ND<50	ND	ND	ND
1,3-Dichlorobenzene (m-Dichlorobenzene)	10.0	ND	ND<50	ND	ND<50	ND	ND	ND
1,4-Dichlorobenzene (p-Dichlorobenzene)	10.0	ND	ND<50	ND	ND<50	ND	ND	ND
Dichlorodifluoromethane	30.0	ND	ND<150	ND	ND<150	ND	ND	ND
1,1-Dichloroethane	10.0	ND	ND<50	ND	ND<50	ND	ND	ND
1,2-Dichloroethane	10.0	ND	ND<50	ND	ND<50	ND	ND	ND
1,1-Dichloroethene (1,1-Dichloroethylene)	10.0	ND	ND<50	ND	ND<50	ND	ND	ND
cis-1.2-Dichloroethene	10.0	ND	4,190	218	1,810	132	ND	ND
1,2-Dichloropropane	10.0	ND	70.0	ND	ND<50	ND	ND	ND
1,3-Dichloropropane	10.0	ND	ND<50	ND	ND<50	ND	ND	ND
2,2-Dichloropropane	10.0	ND	ND<50	ND	ND<50	ND	ND	ND
1,1-Dichloropropene	10.0	ND	ND<50	ND	ND<50	ND	ND	ND
cis-1,3-Dichloropropene	10.0	ND ND	ND<50	ND	ND<50	ND	ND	ND
trans-1,3-Dichloropropene	10.0	ND	ND<50	ND	ND<50	ND	ND	ND
Ethylbenzene	2.00	ND ND	ND<50	ND ND	ND<50	ND	ND	ND
Hexachlorobutadiene (1,3-Hexachlorobutadiene)	30.0	ND	ND<150	ND	ND<10	ND	ND	ND
2-Hexanone	50.0	ND	ND<130	ND	ND<150	ND	ND	ND
sopropylbenzene	10.0	ND	ND<50	ND ND	ND<250 ND<50	ND	ND	ND
p-Isopropyltoluene (4-Isopropyltoluene)	10.0	ND	ND<50	ND ND	ND<50	ND ND	ND	ND
MTBE	5.00	ND	ND<30	ND	ND<50	ND ND	ND ND	ND
-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)	50.0	ND	ND<250	ND	ND<250	ND	ND	ND
Methylene chloride (Dichloromethane, DCM)	50.0	ND	ND<250	ND	ND<250	ND	ND ND	ND ND
Naphthalene	10.0	ND	ND<50	ND	ND<50	ND	ND ND	
-Propylbenzene	10.0	ND	ND<50	ND	ND<50	ND	ND	
Styrene	10.0	ND	ND<50	ND	ND<50	ND	ND ND	
1,1,1,2-Tetrachloroethane	10.0	ND	ND<50	ND	ND<50	ND	ND	ND
1,1,2,2-Tetrachloroethane	10.0	ND	ND<50	ND	ND<50	ND	ND	ND ND
Tetrachloroethene (Tetrachloroethylene) {PCE}	10.0	ND	59.0	ND	ND<50	ND	43.4	ND
Toluene (Methyl benzene)	2.00	ND	ND<10	ND	ND<10	ND	ND	ND
1,2,3-Trichlorobenzene	10.0	ND	ND<50	ND	ND<50	ND	ND	ND
,2,4-Trichlorobenzene	10.0	ND	ND<50	ND	ND<50	ND	ND	ND
,1,1-Trichloroethane	10.0	ND	ND<50	ND	ND<50	ND	ND	ND
,1,2-Trichloroethane	10,0	ND	ND<50	ND	ND<50	ND	ND	ND
richloroethene (TCE)	10.0	ND	160	ND	ND<50	ND	15.7	ND
richlorofluoromethane	10.0	ND	ND<50	ND	ND<50	ND	ND	ND
2,3-Trichloropropane	10.0	ND	ND<50	ND	ND<50	ND	ND	ND
1,2,4-Trimethylbenzene	10.0	ND	ND<50	ND	ND<50	ND	ND	ND
1.3.5-Trimethylbenzene	10.0	ND	ND<50	ND	ND<50	ND	ND	ND
Vinyl acetate	50.0	ND	ND<250	ND	ND<250	ND	ND	ND
/inyl chloride (Chloroethene)	30.0	ND	ND<150	ND	ND<150	ND	ND	ND
p-Xylene	2.00	ND	ND<10	ND	ND<10	ND	ND	ND
m- & p-Xylenes	4.00	ND	ND<20	ND	ND<20	ND	ND	ND

NOTES:

VOC = Volatile Organic Compound

PQL = Practical Quantitation Limit

ND = Indicated constituents not detected above the PQL ND<X = Indicated constituents not detected above the PQL of X



VOCs in Soil	Sample ID: Date:	B15-2.5 5/1/2013	B15-6 5/1/2013	946-255 \$11/2013	13510-6 5/1/2018	B16-10 5/1/20/13	B47-2.5 5/1/2013	B17-5 5/4/2013
by EPA Method 8260B	12 MIL ((10/1413))	and a second		the second s	oncentration			CHARGE ALACED
Acetone	50.0	108	ND	65.2	ND	ND	ND	ND
Benzene	2.00	3.40	ND	ND	ND	ND	ND	ND
Bromobenzene (Phenyl bromide)	10.0	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane (Chlorobromomethane) Bromodichloromethane (Dichlorobromomethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Bromoform (Tribromomethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	50.0	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK, Methyl ethyl ketone)	30.0	ND ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	10.0	ND	ND ND	ND ND	ND	ND	ND	ND
tert-Butylbenzene	10.0	ND	ND	ND	ND ND	ND	ND	ND
Carbon disulfide	10.0	ND	ND	ND	ND ND	ND ND	ND	ND
Carbon tetrachloride (Tetrachloromethane)	10.0	ND	ND	ND	ND	ND	ND ND	ND
Chlorobenzene	10.0	ND	ND	ND	ND	ND	ND ND	ND
Chloroethane	30.0	ND	ND	ND	ND	ND -	ND	ND ND
2-Chloroethyl vinyl ether	50.0	ND	ND	ND	ND	ND	ND	ND ND
Chloroform (Trichloromethane)	10.0	ND	ND .	ND	ND	ND	ND	ND ND
Chloromethane (Methyl chloride)	30.0	ND	ND ;	ND	ND	ND	ND	ND
4-Chlorotoluene (p-Chlorotoluene)	10.0	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene (o-Chlorotoluene)	10.0	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	50.0	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB, Ethylene dibromide)	10.0	ND	ND	ND	ND	ND	ND	ND
Dibromomethane 1.2-Dichlorobenzene (o-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene (m-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene (p-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	10.0	ND	ND	ND	ND	ND	ND	ND
1.1-Dichloroethane	30.0	ND	ND .	ND	ND	ND	ND	ND
1,2-Dichloroethane	10.0	ND ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (1,1-Dichloroethylene)	10.0	ND	ND I	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	10.0	13.4	ND	ND 462	ND	ND	ND	ND
trans-1,2-Dichloroethene	10.0	ND	ND	162 ND	23.3 ND	ND	ND	ND
1,2-Dichloropropane	10.0	ND	ND I	ND	ND	ND ND	ND	ND
1,3-Dichloropropane	10.0	ND	ND	ND	ND	ND ND	ND	ND
2.2-Dichloropropane	10.0	ND	ND :	ND	ND	ND	ND ND	ND
1,1-Dichloropropene	10.0	ND	ND	ND	ND	ND	ND ND	ND
cis-1,3-Dichloropropene	10.0	ND	ND	ND	ND	ND	ND	ND ND
trans-1,3-Dichloropropene	10.0	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	2.00	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene (1,3-Hexachlorobutadiene)	30.0	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	50.0	ND	ND	ND	ND	ND	ND	ND
sopropylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene (4-Isopropyltoluene)	10.0	ND	ND	ND	ND	ND	ND	ND
MTBE	5.00	ND	ND	ND	ND	ND	ND	ND
-Methyl-2-penlanone (MIBK, Methyl isobutyl ketone)	50.0	ND	ND :	ND	ND	ND	ND ·	ND
Methylene chloride (Dichloromethane, DCM) Naphthalene	50.0	ND	ND	ND	ND	ND	ND .	ND
n-Propylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Styrene	10.0	ND ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	10.0	ND ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	10.0	ND ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (Tetrachloroethylene) {PCE}	10.0	84.6	ND ND	ND 42.6	ND	ND	ND	ND
Toluene (Methyl benzene)	2.00	ND	ND	42.6 ND	ND ND	ND	ND ND	ND
1.2.3-Trichlorobenzene	10.0	ND	ND	ND ND	ND ND	ND	ND	ND
1.2,4-Trichlorobenzene	10.0	ND	ND	ND	ND ND	ND	ND	ND
1,1,1-Trichloroethane	10.0	ND	ND	ND	ND ND	ND ND	ND ND	ND
1,1,2-Trichloroethane	10.0	ND	ND	ND	ND	ND ND		ND ND
Trichloroethene (TCE)	10.0	34.5	ND	67.5	ND	ND	ND ND	ND
Frichlorofluoromethane	10.0	ND	ND	ND	ND	ND	ND	ND
2,3-Trichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	10.0	ND	ND	ND	ND	ND	ND ND	ND ND
1.3.5-Trimethylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND ND
/inyl acetate	50.0	ND	ND	ND	ND	ND	ND	ND ND
/inyl chloride (Chloroethene)	30.0	ND	ND	ND	ND	ND	ND	ND ND
p-Xylene	2.00	ND	ND :	ND	ND	ND	ND	ND
m- & p-Xylenes	4.00	ND	ND	ND	ND	ND	ND	ND

NOTES:

VOC = Volatile Organic Compound PQL = Practical Quantitation Limit

ND = Indicated constituents not detected above the PQL ND<X = Indicated constituents not detected above the PQL of X



VOCs in Solt	Sample ID: Date:	Br8 2.5	1210-5	B19.2.5	219-5	B20-2.5	820 5	320-10
EPA Method 8260B	Pate: POL (µg/kg)	<u>. 51/2013</u>	6/1/2013	6/2/2013	5/2/2013	61212.043	5/2/2013	5/2/2013
Acetone	50.0	ND	ND .	ND	oncentration ND		115	
Benzene	2.00	ND	ND	ND	ND	ND ND	ND ND	ND ND
Bromobenzene (Phenyl bromide)	10.0	ND	ND	ND	ND	ND	ND	ND ND
Bromochloromethane (Chlorobromomethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane (Dichlorobromomethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Bromoform (Tribromomethane)	50.0	ND	ND !	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	30.0	ND	ND 1	ND	ND	ND	ND	ND
2-Butanone (MEK, Methyl ethyl ketone)	50.0	ND	ND .	ND	ND	ND	ND	ND
n-Butylbenzene	10.0	ND	ND 1	ND	ND	ND	ND	ND
tert-Butylbenzene	10.0	ND	ND i	ND	ND	ND	ND	ND
Carbon disulfide	10.0	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride (Tetrachloromethane)	10.0	ND ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	10.0	ND	ND ND	ND ND	ND	ND	ND	ND
Chloroethane	30.0	ND	ND	ND ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	50.0	ND	ND	ND	ND ND	ND	ND	ND
Chloroform (Trichloromethane)	10.0	ND	ND I	ND	ND	ND ND	ND	ND
Chloromethane (Methyl chloride)	30.0	ND	ND	ND	ND	ND	ND ND	ND
4-Chlorotoluene (p-Chlorotoluene)	10.0	ND	ND	ND	ND	ND	ND ND	ND
2-Chlorotoluene (o-Chlorotoluene)	10.0	ND	ND	ND	ND	ND	ND	ND ND
1,2-Dibromo-3-chloropropane (DBCP)	50.0	ND	ND	ND	ND	ND	ND	ND ND
Dibromochloromethane	10.0	ND	ND	ND	ND	ND	ND ND	ND ND
1.2-Dibromoethane (EDB, Ethylene dibromide)	10.0	ND	ND :	ND	ND	ND	ND	ND
Dibromomethane	10.0	ND	ND	ND	ND	ND	ND	ND
,2-Dichlorobenzene (o-Dichlorobenzene)	10.0	ND	ND :	ND	ND	ND	ND	ND
1,3-Dichlorobenzene (m-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND
1.4-Dichlorobenzene (p-Dichlorobenzene)	10.0	ND	ND .	ND	ND	ND	ND	ND
1,1-Dichloroethane	30.0	<u>ND</u>	ND .	ND	ND	ND	ND	ND
1.2-Dichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (1,1-Dichloroethylene)	10.0	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	10.0	ND ND	ND .	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	10.0	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	10.0	ND	ND .	ND	ND	ND	ND	ND
1,3-Dichloropropane	10.0	ND	ND	ND ND	ND ND	ND	ND	ND
2,2-Dichloropropane	10.0	ND	ND	ND	ND ND	ND ND	ND	ND
1,1-Dichloropropene	10.0	ND	ND	ND	ND	ND	ND ND	ND
cis-1,3-Dichloropropene	10.0	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	10.0	ND	ND	ND	ND	ND	ND	ND ND
Ethylbenzene	2.00	ND	ND	ND	ND	ND	ND	ND ND
texachlorobutadiene (1,3-Hexachlorobutadiene)	30.0	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	50.0	ND	ND	ND	ND	ND	ND	ND
sopropylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
o-Isopropyltoluene (4-Isopropyltoluene)	10.0	ND	ND	ND	ND	ND	ND	ND
MTBE	5.00	ND	ND	ND	ND	ND	ND	ND
-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)	50.0	ND	ND	ND	ND	ND	ND	ND
Methylene chloride (Dichloromethane, DCM)	50.0	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10.0	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Styrene	10.0	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	10.0	ND ND	ND	ND	ND	ND	ND	ND
	10.0	ND	ND	ND	ND	ND	ND	ND
etrachloroethene (Tetrachloroethylene) {PCE}	10.0	ND ND	ND :	ND	ND	18.1	ND	ND
1,2,3-Trichlorobenzene	2.00	ND ND	ND I	ND	ND	ND	ND	ND
.2.4-Trichlorobenzene	10.0	ND ND	ND ND	ND	ND	ND	ND	ND
,1,1-Trichloroethane	10.0	ND ND	ND	ND	ND	ND	ND	ND
,1,2-Trichloroethane	10.0	ND	ND ND	ND ND	ND	ND	ND	ND
richloroethene (TCE)	10.0	ND	ND ND	ND ND	ND	ND	ND	ND
Trichlorofluoromethane	10.0	ND ND	ND	ND	ND ND	ND	ND	ND
2.3-Trichloropropane	10.0	ND ND	ND 1	ND ND	ND ND	ND	ND	ND
1,2,4-Trimethylbenzene	10.0	ND	ND	ND	ND ND	ND ND	ND	ND
1,3,5-Trimethylbenzene	10.0	ND	ND	ND	ND	ND ND	ND	ND ND
/inyl acetate	50.0	ND	ND	ND	ND ND	ND	ND	ND
/inyl chloride (Chloroethene)	30.0	ND	ND	ND	ND ND	ND ND	ND ND	ND ND
p-Xylene	2.00	ND	ND	ND	ND	ND	ND	ND ND
m- & p-Xylenes	4.00	ND	ND	ND	ND	ND	ND	ND ND

NOTES:

VOC = Volatile Organic Compound

PQL = Practical Quantilation Limit

 $\ensuremath{\mathsf{ND}}\xspace$  = Indicated constituents not detected above the PQL

ND<X = Indicated constituents not detected above the PQL of X



VOCs is Soil	Sample ID	821-2.5	1324-5	321 10	B22-2.5	B/22-5	B/22-10	823-2.5
VOCs in Soil by EPA Method 8260B	Date: Pel tug/ist:	5/2/2013	5/2/2013	6/2/2013	5/2/2013	5/2/2013	5/2/2013	5/1/2013
Acetone	50.0	ND	ND	VOCC	oncentration		and the second s	
Benzene	2.00	ND	ND ND	ND ND	ND	ND	ND	ND
Bromobenzene (Phenyl bromide)	10.0	ND	ND	ND	ND ND	ND	ND	ND
Bromochloromethane (Chlorobromomethane)	10.0	ND	ND	ND	ND	ND ND	ND ND	ND
Bromodichloromethane (Dichlorobromomethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Bromoform (Tribromomethane)	50.0	ND	ND :	ND	ND	ND	ND	ND ND
Bromomethane (Methyl bromide)	30.0	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK, Methyl ethyl ketone)	50.0	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	10.0	ND	ND 1	ND	ND	ND	ND	ND
Carbon disulfide	10.0	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride (Tetrachloromethane) Chlorobenzene	10.0	ND	ND :	ND	ND	ND	ND	ND
Chloroethane	10.0	ND	ND .	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	30.0	ND	ND I	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	10.0		ND	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	30.0	ND	ND ND	ND	ND	ND	ND	ND
4-Chlorotoluene (p-Chlorotoluene)	10.0	ND ND	ND ND	ND ND	ND	ND	ND	ND
2-Chlorotoluene (o-Chlorotoluene)	10.0	ND		ND ND	ND ND	ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	50,0	ND	ND ND	ND	ND ND	ND ND	ND ND	ND
Dibromochloromethane	10.0	ND	ND	ND	ND	ND ND	ND ND	ND
1,2-Dibromoethane (EDB, Ethylene dibromide)	10.0	ND	ND	ND	ND	ND ND	ND ND	ND ND
Dibromomethane	10.0	ND	ND	ND	ND	ND	ND	ND ND
1,2-Dichlorobenzene (o-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND ND
1,3-Dichlorobenzene (m-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene (p-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	30.0	ND	ND	ND	ND	ND	ND	ND
1.1-Dichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (1,1-Dichloroethylene) cis-1,2-Dichloroethene	10.0	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	10.0	ND	ND	ND	ND	ND	ND	ND
1.2-Dichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
1.3-Dichloropropane	10.0	ND ND	ND	ND	ND	ND	ND	ND
2.2-Dichloropropane	10.0		ND	ND	ND	ND	ND	ND
1.1-Dichloropropene	10.0	ND	ND ND	ND ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	10.0	ND	ND ND	ND ND	ND ND	ND	ND	ND
trans-1,3-Dichloropropene	10.0	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	2.00	ND	ND	ND	ND	ND ND	ND	ND
Hexachlorobutadiene (1,3-Hexachlorobutadiene)	30.0	ND	ND	ND	ND	ND	ND ND	ND
2-Hexanone	50.0	ND	ND	ND	ND	ND	ND ND	ND
sopropylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND ND
p-Isopropyltoluene (4-Isopropyltoluene)	10.0	ND	ND	ND	ND	ND	ND	ND ND
MTBE	5.00	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)	50.0	ND	ND	ND	ND	ND	ND	ND ND
Methylene chloride (Dichloromethane, DCM)	50.0	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10.0	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Styrene	10.0	ND	ND	ND	ND	ND	ND	ND
1.1,1,2-Tetrachloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,1.2.2-Tetrachloroethane	10.0	ND	ND	ND	ND .	ND	ND	ND
Tetrachloroethene (Tetrachloroethylene) (PCE)	10.0	ND	ND	ND	ND	ND	ND	44
Toluene (Methyl benzene) 1.2.3-Trichlorobenzene	2.00	ND	ND	ND	ND	ND	ND	ND
1.2.4-Trichlorobenzene	10.0	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	10.0 10.0	ND ND	ND	ND	ND	ND	ND	ND
1,1.2-Trichloroethane	10.0	ND ND	ND	ND	ND	ND	ND	ND
Trichloroethene (TCE)	10.0	ND ND	ND ND	ND	ND	ND	ND	ND
Frichlorofluoromethane	10.0	ND	ND .	ND ND	ND	ND	ND ND	ND
1,2,3-Trichloropropane	10.0	ND	ND .	ND ND	ND	ND	ND	ND
1.2,4-Trimethylbenzene	10.0	ND ND	ND ND	ND ND	ND	ND ND	ND	ND
1.3.5-Trimethylbenzene	10.0	ND	ND	ND ND	ND	ND ND	ND ND	ND
Vinyl acetate	50.0	ND	ND	ND ND	ND ND	ND ND	ND ND	ND
Vinyl chloride (Chloroethene)	30.0	ND	ND	ND	ND	ND	ND ND	ND ND
p-Xylene	2.00	ND	ND	ND	ND	ND	ND ND	ND ND
m- & p-Xylenes	4.00	ND	ND	ND	ND	ND	ND	ND

NOTES

VOC = Volatile Organic Compound

PQL = Practical Quantitation Limit

ND = Indicated constituents not detected above the PQL

ND<X = Indicated constituents not detected above the PQL of X



VOCs in Soil by EPA Method 82608	Sample ID: Date:	B23-5 6/1/2013	5/1/2013	Bi28-5 4/25/2013	B28-2,5 4/25/2013	B2842.5	329.5	B29-10
	Piels (applies):	00110010	dinkona.		oncentration	6 1/20/3	5/1/2015	5/1/2013
Acetone	50.0	ND	ND	ND	ND	ND	ND	
Benzene	2.00	ND	ND	ND	2.40	ND	ND	ND ND
Bromobenzene (Phenyl bromide)	10.0	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane (Chlorobromomethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane (Dichlorobromomethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Bromoform (Tribromomethane)	50.0	ND	ND	ND .	ND	ND	ND	ND
Bromomethane (Methyl bromide)	30.0	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK, Methyl ethyl ketone)	50.0	ND	ND .	ND	ND	ND	ND	ND
n-Butylbenzene sec-Butylbenzene	10.0	ND	ND I	ND	ND	ND	ND	ND
tert-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	10.0	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride (Tetrachloromethane)	10.0	ND ND	ND .	ND	ND	ND	ND	ND
Chlorobenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Chloroethane	30.0	ND ND	ND ND	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	50.0	ND	ND	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	10.0	ND	ND 1	ND ND	ND ND	ND	ND	ND
Chloromethane (Methyl chloride)	30.0	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene (p-Chlorotoluene)	10.0	ND ND	ND	ND	ND ND	ND ND	ND	ND
2-Chlorotoluene (o-Chlorotoluene)	10.0	ND	ND	ND	ND ND	NUND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	50.0	ND	ND	ND ND	ND	ND ND	ND ND	ND
Dibromochloromethane	10.0	ND	ND	ND	ND ND	ND ND	ND	ND
1,2-Dibromoethane (EDB, Ethylene dibromide)	10.0	ND	ND	ND	ND	ND ND	ND ND	ND
Dibromomethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene (o-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND ND
1,3-Dichlorobenzene (m-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene (p-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	30.0	ND	ND .	ND	ND	ND	ND	ND
1,1-Dichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
.2-Dichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1.1-Dichloroethene (1,1-Dichloroethylene)	10.0	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	10.0	ND	ND	ND	ND	ND	ND	ND
rans-1,2-Dichloroethene	10.0	ND	ND	ND	ND	ND	ND	ND
2 Dichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
I,3-Dichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	10.0	ND	ND ;	ND	ND	ND	ND	ND
1,1-Dichloropropene	10.0	ND	ND :	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	10.0	ND	ND -	ND	ND	ND	NĎ	ND
Ethylbenzene	10.0	ND	ND 1	ND	ND	ND	ND	ND
lexachlorobutadiene (1,3-Hexachlorobutadiene)	2.00	ND	ND	ND	ND	ND ·	ND	ND
2-Hexanone	30.0	ND	ND I.	ND	ND	ND	ND	ND
sopropylbenzene	50.0	ND	ND 1	ND	ND	ND	ND	ND
-Isopropyltoluene (4-Isopropyltoluene)	10.0	ND	ND	ND	ND	ND	ND	ND
WTBE	10.0	ND	ND	ND	ND	ND	ND	ND
I-Methyl-2-penlanone (MIBK, Methyl isobutyl ketone)	5.00	ND ND	ND	ND	ND	ND	ND	ND
Methylene chloride (Dichloromethane, DCM)	50.0	ND	ND	ND	ND	ND	ND	ND
Vaphthalene	10.0	ND ND	ND ND	ND ND	ND	ND	ND .	ND
n-Propylbenzene	10.0	ND ND	ND	ND ND	ND	ND	ND	ND
Styrene	10.0	ND	ND I	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	10.0	ND	ND ND	ND	ND ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	10.0	ND	ND	ND	ND ND	ND	ND	ND
etrachloroethene (Tetrachloroethylene) {PCE}	10.0	ND	ND	ND		ND	ND	ND
Foluene (Methyl benzene)	2.00	ND	ND	ND	20.9 ND	84.4	ND	ND
1,2,3-Trichlorobenzene	10.0	ND	ND	ND	ND	ND	ND	ND
.2,4-Trichlorobenzene	10.0	ND	ND I	ND	ND ND	ND	ND	ND
.1.1-Trichloroethane	10.0	ND	ND	ND	ND ND	ND	ND	ND
,1,2-Trichloroethane	10.0	ND	ND	ND	ND	ND ND	ND	ND
richloroethene (TCE)	10.0	ND	ND	ND	ND ND	ND	ND	ND
richlorofluoromethane	10.0	ND	ND	ND	ND	ND	ND	ND
.2.3-Trichloropropane	10.0	ND	ND	ND	ND	ND ND	ND	ND
,2,4-Trimethylbenzene	10.0	ND	ND	ND	ND ND	ND ND	ND	ND
,3,5-Trimethylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
/inyl acetate	50.0	ND	ND	ND	ND ND	ND	ND	ND
/inyl chloride (Chloroethene)	30.0	ND	ND	ND	ND	ND	ND ND	ND
p-Xylene	2.00	ND	ND	ND	ND	ND ND	ND ND	ND ND
m-& p-Xylenes								

NoTES: VOC = Volatile Organic Compound PQL = Practical Quantitation Limit

ND = Indicated constituents not detected above the PQL

ND<X # Indicated constituents not detected above the PQL of X



## TABLE 5 Soil Matrix Sample Results for VOCs 12922 Panama Street Los Angeles, California

VOCs In Soil	Sample ID: Date	B31-2,5 5/2/2013	B31-5 8/2/2015	15/3/12(0113	937-215 9/6/2043	B37-5 6/8/2013	6/7/2013	B38-5 8/7/2015
Acetone BPA Method 8260B	(916)): ((((-))(c));				oncentration	and the second se		CO TH
Benzene	50.0	ND	ND	ND	ND	ND	ND	ND
Bromobenzene (Phenyl bromide)	2.00	ND ND	ND	ND	3.9	ND	6.98	ND
Bromochloromethane (Chlorobromomethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane (Dichlorobromomethane)	10.0	ND ND	ND	ND	ND	ND	ND	ND
Bromoform (Tribromomethane)	50.0	ND	ND ND	ND ND	ND	ND	ND .	ND
Bromomethane (Methyl bromide)	30.0	ND	ND	ND ND	ND ND	ND	ND	ND
2-Butanone (MEK, Methyl ethyl ketone)	50.0	ND	ND	ND ND	ND	ND ND	ND ND	ND
n-Butylbenzene	10.0	ND	ND	ND	ND	ND ND	ND ND	ND
sec-Buty/benzene	10.0	ND	ND	ND	ND	ND	ND ND	ND ND
tert-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	10.0	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride (Tetrachloromethane)	10.0	ND	ND	ND	ND	ND	ND	ND ND
Chlorobenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Chloroethane	30.0	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	50.0	ND	ND	ND	ND	ND	ND	ND
Chloroform (Trichloromethane) Chloromethane (Methyl chloride)	10.0	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene (p-Chlorotoluene)	30.0	ND	ND	<u>ND</u>	ND	ND	ND	ND
2-Chlorotoluene (o-Chlorotoluene)	10.0	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	10.0	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	10.0	ND ND	ND .	ND	ND ND	ND	ND	ND
1.2-Dibromoethane (EDB, Ethylene dibromide)	10.0		ND ND	ND	ND	ND	ND	ND
Dibromomethane	10.0	ND	ND ND	ND ND	ND ND	ND	ND	ND
1,2-Dichlorobenzene (o-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND ND	ND	ND
1,3-Dichlorobenzene (m-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND ND	ND
1,4-Dichlorobenzene (p-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND ND	ND
Dichlorodifluoromethane	30.0	ND	ND	ND	ND	ND	ND	ND ND
1.1-Dichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1.2-Dichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (1,1-Dichloroethylene)	10.0	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	10.0	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	10.0	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane 2,2-Dichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
1.1-Dichloropropene	10.0	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	10.0	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	10.0	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	10.0		ND	ND	ND	ND	ND	ND
Hexachlorobutadiene (1.3-Hexachlorobutadiene)	30.0	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	50.0	ND	ND ND	ND	ND	ND	ND	ND
sopropylbenzene	10.0	ND	ND ND	ND ND	ND	ND	ND	ND
p-isopropyitoluene (4-isopropyitoluene)	10.0	ND	ND	ND .	ND	ND	ND	ND
MTBE	5.00	ND	ND	ND	ND ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)	50.0	ND	ND	ND	ND	ND ND	ND	ND
Methylene chloride (Dichloromethane, DCM)	50.0	ND	ND	ND	ND	ND ND	ND ND	ND
Naphthalene	10.0	ND	ND	ND	ND	ND	ND ND	ND ND
n-Propylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Styrene	10.0	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	10.0	ND	ND 1	ND	ND	ND	ND	ND ND
1,1,2,2-Tetrachloroethane	10.0	ND	ND 1	ND	ND	ND	ND	ND
Tetrachloroethene (Tetrachloroethylene) {PCE}	10.0	ND	ND :	ND	45.5	ND	302	ND
Toluene (Methyl benzene)	2.00	ND	ND	ND	2.04	ND	3.96	ND
1,2,3-Trichlorobenzene	10.0	ND	ND I	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1.1.2-Trichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (TCE)	10.0	ND	ND	ND	ND	ND	ND	ND
Frichloroflyoromethane	10.0	· ND	ND I	ND	ND	ND .	ND	ND
1,2,3-Trichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
1,3,6-Trimethylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	10.0	ND	ND I	ND ND	ND	ND	ND	ND
Vinyl chloride (Chloroethene)	50.0 30.0	ND	ND ND	ND	ND	ND	ND	ND
o-Xylene		ND	ND	ND	ND	ND	ND	ND
m- & p-Xylenes	2.00	ND	ND	ND	ND	ND	ND	ND
	4.00	ND	ND !	ND	ND	ND	ND	ND

NOTES:

VOC = Volatile Organic Compound PQL = Practical Quantitation Limit

ND = Indicated constituents not detected above the PQL

ND<X = Indicated constituents not detected above the PQL of X



A SAME AND REAL PROPERTY.	Sample (D.	B39-2,5	1389-5	840 2,4	840-5	348-5	B43-10	B44-5
VOCs in Soil	Date:	6/7/2013	6/7/2013	6/7/2013	61712013	6/6/2013	6/6/2013	010/2013
by EPA Method 8260B		NID	NID		oncentration		and the state of the state	
Benzene	50.0	ND ND	ND	ND	ND	ND	ND	ND
Bromobenzene (Phenyl bromide)	10.0	ND ND	ND ND	ND ND	ND	ND	ND	ND
Bromochloromethane (Chlorobromomethane)	10.0	ND	ND	ND	ND ND	ND ND	ND	ND
Bromodichloromethane (Dichlorobromomethane)	10.0	ND	ND	ND	ND ND	ND	ND ND	ND
Bromoform (Tribromomethane)	50.0	ND	ND	ND	ND	ND		ND ND
Bromomethane (Methyl bromide)	30.0	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK, Methyl ethyl ketone)	50.0	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	10.0	ND	ND .	ND	ND	ND	ND	ND
Carbon disulfide Carbon tetrachloride (Tetrachloromethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	10.0	ND	ND '	ND	ND	ND	ND	ND
Chloroethane	10.0	ND ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	30.0	ND ND	ND ND	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	10.0	ND ND	ND ND	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	30.0	ND	ND .	ND	ND	ND	ND	ND
4-Chlorotoluene (p-Chlorotoluene)	10.0	ND	ND ND	ND ND	ND ND	ND	ND ND	ND
2-Chlorotoluene (o-Chlorotoluene)	10.0	ND	ND ND	ND	ND ND	ND ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	50.0	ND	ND .	ND ND	ND ND	ND ND	ND ND	ND
Dibromochloromethane	10.0	ND	ND	ND	ND ND	ND	ND ND	ND ND
1,2-Dibromoethane (EDB, Ethylene dibromide)	10.0	ND	ND	ND	ND	ND	ND ND	ND ND
Dibromomethane	10.0	ND	ND	ND	ND	ND	ND ND	ND ND
1,2-Dichlorobenzene (o-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND
1.3-Dichlorobenzene (m-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene (p-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	30.0	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	10.0	ND	ND i	ND	ND	ND	ND	ND
1.1-Dichloroethene (1.1-Dichloroethylene)	10.0	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	10.0	26.9	ND	54	21.4	93.2	30	55.2
1,2-Dichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	10.0	ND ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	10.0	ND	ND ND	ND	ND	ND	ND	ND
1.1-Dichloropropene	10.0	ND	ND ND	ND ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	10.0	ND	ND	ND	ND ND	ND	ND	ND
trans-1,3-Dichloropropene	10.0	ND	ND	ND	ND	ND ND	ND	ND
Ethylbenzene	2.00	ND	ND	ND	ND	ND	ND ND	ND
Hexachlorobutadiene (1,3-Hexachlorobutadiene)	30.0	ND	ND	ND	ND	ND	ND	ND ND
2-Hexanone	50.0	ND	ND	ND	ND	ND	ND	ND ND
sopropylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
p-isopropyltoluene (4-isopropyltoluene)	10.0	ND	ND I	ND	ND	ND	ND	ND
MTBE	5.00	ND	ND	ND	ND	ND	ND	ND
1-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)	50.0	ND	ND .	ND	ND	ND	ND	ND
Methylene chloride (Dichloromethane, DCM)	50.0	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10.0	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Styrene	10.0	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	10.0	ND	ND I	ND	ND	ND	ND	ND
Tetrachloroethene (Tetrachloroethylene) {PCE}	10.0	28.9	ND I	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	2.00	ND	ND I	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	10.0	ND	ND :	ND	ND	ND	ND	ND
1.1.1.1-Trichloroethane	10.0	ND	ND '	ND	ND	ND	ND	ND
,1,2-Trichloroethane	10.0	ND	ND 1	ND	ND	ND	ND	ND
richloroethene (TCE)	10.0	ND 159	ND	ND	ND	ND.	ND	ND
Trichlorofluoromethane	10.0	ND	ND ND	<u>11.4</u>	ND	ND	ND	ND
1.2,3-Trichloropropane	10.0	ND ND	ND ND	ND ND	ND	ND	ND	ND
1.2.4-Trimethylbenzene	10.0	ND		ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	10.0	ND	ND :	ND ND	ND	ND ND	ND ND	ND
Vinyl acetate	50.0	ND	ND	ND ND	ND ND	ND ND	ND	ND ND
Vinyl chloride (Chloroethene)	30.0	ND	ND	ND	ND	ND	ND	ND
p-Xylene	2.00	ND	ND	ND	ND	ND	ND ND	ND ND

NOTES:

VOC = Volatile Organic Compound

PQL = Practical Quantitation Limit

ND = Indicated constituents not detected above the PQL

ND<X = indicated constituents not detected above the PQL of X



# TABLE 5 Soil Matrix Sample Results for VOCs 12922 Panama Street Los Angeles, California

VOCs in Soil	Sample (D) Date:	B44-10 6/6/2013	B45-2,5 6/6/20*3	E/8/2018	B46/2.5 6/6/2013	B46-5 6/6/2013	B47-2.5 5/31/2018	B47-5-0
by EPA Method 8260B	1716/L ((19/60))		and the start of the second	the second s	oncentratil	and the second se	C addition 18	5/31/2013
Acetone	50.0	ND	ND	ND	ND	ND	ND	ND
Benzene	2.00	ND	4	ND	ND	ND	5.50	ND
Bromobenzene (Phenyl bromide)	10.0	ND	ND 1	ND	ND	ND	ND	ND
Bromochloromethane (Chlorobromomethane)	10.0	ND	ND I	ND	ND	ND	ND	ND
Bromodichloromethane (Dichlorobromomethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Bromoform (Tribromomethane) Bromomethane (Methyl bromide)	50.0	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK, Methyl ethyl ketone)	30.0	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	50.0	ND	ND	<u>ND</u>	ND	ND	ND	ND
sec-Butylbenzene	10.0	ND ND	ND	ND	ND	<u>ND</u>	ND	ND
tert-Butylbenzene	10.0	ND	ND ND	ND	ND	ND	ND	NDND
Carbon disulfide	10.0	ND	ND ND	ND	ND	ND	ND	ND
Carbon tetrachloride (Tetrachloromethane)	10.0	ND	ND .	ND ND	ND	ND	ND	ND
Chlorobenzene	10.0	ND	ND	ND	ND ND	ND	ND	ND
Chloroethane	30.0	ND	ND	ND	ND	ND ND	ND ND	ND
2-Chloroethyl vinyl ether	50.0	ND	ND	ND	ND	ND	ND ND	ND
Chloroform (Trichloromethane)	10.0	ND	ND	ND	ND	ND	ND	ND ND
Chloromethane (Methyl chloride)	30.0	ND	ND	ND	ND	ND	ND	ND ND
4-Chlorotoluene (p-Chlorotoluene)	10.0	ND	ND	ND	ND	ND	ND	ND ND
2-Chlorotoluene (o-Chlorotoluene)	10.0	ND	ND	ND	ND	ND	ND	ND ND
1.2-Dibromo-3-chloropropane (DBCP)	50.0	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB, Ethylene dibromide)	10.0	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene (o-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene (m-Dichlorobenzene) 1,4-Dichlorobenzene (p-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	10.0	ND	ND	ND	ND	ND	ND	ND
1.1-Dichloroethane	30.0	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	10.0	ND	ND	ND	ND	ND	59.2	ND
1,1-Dichloroethene (1,1-Dichloroethylene)	10.0	ND	ND ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	10.0	ND 46,2	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	10.0	46.2 ND	238	49.7	ND	ND	59.2	ND
1,2-Dichloropropane	10.0	ND	14.5 ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	10.0	ND	ND ND	ND ND	ND	ND	ND	ND
2,2-Dichloropropane	10.0	ND	ND	ND ND	ND	ND	ND	ND
1,1-Dichloropropene	10.0	ND	ND ND	ND	ND ND	ND	ND	ND
cis-1,3-Dichloropropene	10.0	ND	ND	ND	ND ND	ND	ND	ND
trans-1,3-Dichloropropene	10.0	ND	ND	ND ND	ND	ND	ND	ND
Ethylbenzene	2.00	ND	ND	ND	ND	ND ND	ND ND	ND
exachlorobutadiene (1,3-Hexachlorobutadiene)	30.0	ND	ND	ND	ND ND	ND	ND ND	ND
2-Hexanone	50.0	ND	ND -	ND	ND ND	ND ND	ND	ND ND
sopropylbenzene	10.0	ND	ND I	ND	ND	ND	ND	
o-isopropyltoluene (4-isopropyltoluene)	10.0	ND	ND	ND	ND	ND	ND	ND ND
MTBE	5.00	ND	ND	ND	ND	ND		
-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)	50.0	ND	ND I	ND	ND	ND	ND	ND ND
Methylene chloride (Dichloromethane, DCM)	50.0	ND	ND I	ND	ND	ND	ND	ND
Naphthalene	10.0	ND	ND I	ND	ND	ND	ND	ND
n-Propylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Styrene	10.0	ND	ND I	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	10.0	ND	ND :	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (Tetrachloroethylene) (PCE)	10.0	ND	ND	ND	26.5	ND	77.6	ND
Toluene (Methyl benzene)	2.00	ND	2.22	ND	ND	ND	4.08	ND
1,2,3-Trichlorobenzene	10.0	ND	ND	ND	ND	ND	ND	ND
.2.4-Trichlorobenzene	10.0	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
I,1,2-Trichloroethane	10.0	ND	ND I	ND	ND	ND	ND	ND
Frichloroethene (TCE)	10.0	ND	123	ND	42.4	ND	330	15.1
Trichlorofluoromethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,2,3-1 lichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
1,2,4-1 hmethylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
√inyl acetate	10.0	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	50.0	ND	ND .	ND	ND	ND	ND	ND
p-Xylene	30.0	ND	ND :	ND	ND	ND	ND	ND
n- & p-Xylenes	2.00	ND	ND .	ND	ND	ND	ND	ND
n a b-vitalias	4.00	ND	ND I	ND	ND	ND	ND	ND

NoTES:

VOC = Volatile Organic Compound

PQL = Practical Quantitation Limit

ND = Indicated constituents not detected above the PQL

ND<X = Indicated constituents not detected above the PQL of X



VOCs in Soil	Sample (D): Date:	B48-2.5 5/31/2013	B48-5(0 5/31/2013	34912013	E49-5.0	849-10.0 5/81/2018	B60-2.5	850.5
by EPA Method 8260B	Intella (pp//kg))	CALCULAR'S		and the second sec	oncentration		6/6/2013	6/6/2013
Acetone	50.0	ND	ND	ND	ND	ND	ND	ND
Benzene	2.00	ND	ND :	4.18	ND ND	ND	2.84	ND ND
Bromobenzene (Phenyl bromide)	10.0	ND	ND I	ND	ND	ND	ND	ND
Bromochloromethane (Chlorobromomethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane (Dichlorobromomethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Bromoform (Tribromomethane)	50.0	ND	ND !	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	30.0	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK, Methyl ethyl ketone)	50.0	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	10.0	ND	ND :	ND	ND	ND	ND	ND
sec-Butylbenzene	10.0	ND	ND i	ND	ND	ND	ND	ND
tert-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	10.0	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride (Tetrachloromethane) Chlorobenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Chloroethane	10.0	ND	ND I	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	30.0	ND	ND	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	50.0	ND	ND :	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	10.0	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene (p-Chlorotoluene)	30.0	ND	ND :	ND	ND	ND	ND	ND
2-Chlorotoluene (o-Chlorotoluene)	10.0	ND ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	50.0	ND ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	10.0		ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB, Ethylene dibromide)	10.0	ND ND	ND ND	ND	ND	ND	ND	ND
Dibromomethane	10.0	ND ND	ND ND	ND	ND ND	ND	ND	ND
1,2-Dichlorobenzene (o-Dichlorobenzene)	10.0	ND ND		ND ND	ND	ND	ND	ND
1,3-Dichlorobenzene (m-Dichlorobenzene)	10.0	ND	ND ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene (p-Dichlorobenzene)	10.0	ND	ND	ND	ND ND	ND	ND	ND
Dichlorodifluoromethane	30.0	ND	ND	ND		ND	ND	ND
1,1-Dichloroethane	10.0	ND	ND ND	ND	ND ND	ND ND	ND	ND
1,2-Dichloroethane	10.0	ND	ND	ND	ND ND	ND ND	ND	ND
1,1-Dichloroethene (1,1-Dichloroethylene)	10.0	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	10.0	ND	ND .	ND	ND	ND	ND ND	ND
rans-1,2-Dichloroethene	10.0	ND	ND	ND	ND	ND	ND	ND
1.2-Dichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND ND
1,3-Dichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	10.0	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	10.0	ND	ND	ND	ND	ND	ND	ND ND
rans-1,3-Dichloropropene	10.0	ND	ND	ND	ND	ND	ND	ND ND
Ethylbenzene	2.00	ND	ND	ND	ND	ND	ND	ND
lexachlorobutadiene (1,3-Hexachlorobutadiene)	30.0	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	50.0	ND	ND	ND	ND	ND	ND	ND
sopropylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
-Isopropyltoluene (4-Isopropyltoluene)	10.0	ND	ND	ND	ND	ND	ND	ND
MTBE	5.00	ND	ND	ND	ND	ND	ND	ND
-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)	50.0	ND	ND	ND	ND	ND	ND	ND
Methylene chloride (Dichloromethane, DCM)	50.0	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10.0	ND	ND	ND	ND	ND	ND	ND
Propylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Styrene	10.0	ND	ND	ND	ND	ND	ND	ND
I,1,2-Tetrachloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
I,1,2,2-Tetrachloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
etrachloroethene (Tetrachloroethylene) (PCE)	10.0	27.2	22.4	135	47.3	ND	36.1	ND
Coluene (Methyl benzene)	2.00	ND	ND	3.06	ND	ND	2.12	ND
,2,4-Trichlorobenzene	10.0	ND	ND	ND	ND	ND	ND	ND
,1,1-Trichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
richloroethene (TCE)	10.0	ND	ND	ND	ND	ND	ND	ND
richlorofluoromethane	10.0	10	ND	14.1	ND	ND	ND	ND
I.2.3-Trichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
I.2.4-Trimethylbenzene	10.0	ND ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
/inyl acetate	10.0	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	50.0	ND	ND	ND	ND	ND	ND	ND
-Xylene	30.0	ND	ND	ND	ND	ND	ND	ND
n- & p-Xylenes	2.00	ND	ND	ND	ND	ND	ND	ND
	4.00	ND	ND	ND	ND	ND	ND	ND

NOTES.

VOC = Volatile Organic Compound PQL = Practical Quantitation L mit

ND = Indicated constiluents not detected above the PQL

ND<X = Indicated constituents not detected above the PQL of X



VOCs in Soil	Sample ID. Date	B61-2.5 6/6/2013	B61-5 0/6/2013	8/6/2013	B52-4 9/6/2013	B53-2,5 5/6/2013	1353-5 6/6/2013	854 2.5
by EPA Method 8260B	BAL (DOUD)			of the local division in which the real of the local division in which the real division is not the local division in the local division is not the local division in the local division is not the local division in the local division is not the local division in the local division is not the local division in the local division is not the local division in the local division is not the local division in the local division is not the local division in the local division is not the local division in the local division in the local division is not the local division in the local division in the local division is not the local division in the local division in the local division is not the local division in the local divi	oncentration	and the second se	OIGN UNITS	5/31/2013
Acetone	50.0	ND	ND	62	ND	ND	ND	68
Benzene	2.00	2.76	ND	ND	ND	ND	ND	2.78
Bromobenzene (Phenyl bromide)	10.0	ND	ND	ND	ND	ND	ND	2.78 ND
Bromochloromethane (Chlorobromomethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane (Dichlorobromomethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Bromoform (Tribromomethane)	50.0	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	30.0	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK, Methyl ethyl ketone)	50.0	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	10.0	14.2	ND	ND	ND	ND	ND	ND
Carbon tetrachloride (Tetrachloromethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Chloroethane	30.0	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	50.0	ND	ND I	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	30.0	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene (p-Chlorotoluene)	10.0	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene (o-Chlorotoluene)	10.0	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	50.0	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB, Ethylene dibromide)	10.0	ND	ND I	ND	ND	ND	ND	ND ND
Dibromomethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene (o-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	23.1
1,3-Dichlorobenzene (m-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND
1.4-Dichlorobenzene (p-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND ND
Dichlorodifluoromethane	30.0	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	10.0	ND	ND	ND	ND	ND	ND ND	ND
1,1-Dichloroethene (1,1-Dichloroethylene)	10.0	ND	ND	ND	ND	ND	ND ND	ND
cis-1,2-Dichloroethene	10.0	ND	ND	24.4	ND	132	ND	204
trans-1,2-Dichloroethene	10.0	ND	ND	ND	ND	ND	ND ND	
1.2-Dichloropropane	10.0	ND	ND	ND	ND	ND	ND	10.6
1,3-Dichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND ND
2,2-Dichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	10.0	ND	ND	ND	ND	ND	ND ND	ND
cis-1,3-Dichloropropene	10.0	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	10.0	ND	ND	ND	ND	ND		ND
Ethylbenzene	2.00	ND	ND	ND	ND	ND	ND ND	ND ND
Hexachlorobutadiene (1,3-Hexachlorobutadiene)	30.0	ND	ND	ND	ND	ND		ND ND
2-Hexanone	50.0	ND	ND	ND	ND	ND	ND	ND
sopropylbenzene	10.0	ND	ND	ND	ND		ND	ND
p-isopropyltoluene (4-isopropyltoluene)	10.0	ND	ND	ND		ND	ND	ND
MTBE	5.00	ND	ND	ND	ND	ND	ND	ND
-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)	50.0	ND	ND	ND ND	ND	ND	ND	ND
Methylene chloride (Dichloromethane, DCM)	50.0	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10.0	ND	ND		ND ND	ND	ND	ND
n-Propylbenzene	10.0	ND	ND ND	ND ND	ND	ND	ND	ND
Styrene	10.0	ND	ND ND		ND	ND	ND	ND
1,1,2-Tetrachioroethane	10.0	ND	ND ND	ND ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	10.0	ND ND		ND	ND	ND	ND	ND
Tetrachloroethene (Tetrachloroethylene) {PCE}			ND	ND	ND	ND	ND	ND
Toluene (Methyl benzene)	10.0	89.3	ND	ND	ND	ND	ND	107
1,2,3-Trichlorobenzene	2.00	ND ND	ND	ND	ND ND	ND	ND	ND
1.2.4-Trichlorobenzene	10.0	ND ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,2-Trichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (TCE)	10.0	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	10.0	21.4	ND	ND	ND	ND	ND	107
I.2.3-Trichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
	10.0	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
1.3.5-Trimethylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	50.0	ND	ND .	ND	ND	ND	ND	ND
Vinyl chloride (Chloroethene)	30.0	ND	ND	ND	ND	ND	ND	ND
o-Xylene	2.00	ND	ND ;	ND	ND	ND	ND	2.24
m- & p-Xylenes	4.00	ND	ND	ND	ND	ND	ND	ND

NOTES:

VOC = Volatile Organic Compound

PQL = Practical Quantitation Limit

ND = Indicated constituents not detected above the PQL

ND<X = Indicated constituents not detected above the PQL of X



	Sample (D)	864-6.0	B55-2-5	866-5	856-2.5	12/56 5.0	E1:7 2.5	357-5
VOCs in Soil	Dates	5/31/2013	6(6/2013	6(6)204.3	544/2013	5/84/2013	6///2013	6/7/ 3
by EPA Method 8260B	(120): ((cc/kg)).	ALC: NO	ALC: NO		oncontration			
Benzene	<u>50.0</u> 2.00	ND ND	ND	ND	66.8	ND	ND	ND
Bromobenzene (Phenyl bromide)	10.0	12.9	ND ND	ND ND	ND	ND	ND	ND
Bromochloromethane (Chlorobromomethane)	10.0	ND	ND	ND	ND ND	ND ND	ND ND	ND
Bromodichloromethane (Dichlorobromomethane)	10.0	ND	ND	ND	ND	ND	ND ND	ND ND
Bromoform (Tribromomethane)	50.0	ND	ND	ND	ND	ND	ND	ND ND
Bromomethane (Methyl bromide)	30.0	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK, Methyl ethyl ketone)	50.0	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	10.0	ND ND	ND ND	ND	ND	ND	ND	ND
Carbon tetrachloride (Tetrachloromethane)	10.0	ND	ND	ND ND	ND ND	ND	ND	ND
Chlorobenzene	10.0	ND	ND	ND ND	ND ND	ND ND	ND	ND
Chloroethane	30.0	ND	ND	ND	ND	ND ND	ND ND	ND
2-Chloroethyl vinyl ether	50.0	ND	ND	ND	ND	ND	ND ND	ND ND
Chloroform (Trichloromethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	30.0	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene (p-Chlorotoluene)	10.0	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene (o-Chlorotoluene) 1,2-Dibromo-3-chloropropane (DBCP)	10.0	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	50.0	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB, Ethylene dibromide)	10.0	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	10.0	ND ND	ND ND	ND	ND	ND	ND	ND
1.2-Dichlorobenzene (o-Dichlorobenzene)	10.0	10	ND ND	ND ND	ND ND	ND ND	ND	ND
1.3-Dichlorobenzene (m-Dichlorobenzene)	10.0	ND	ND	ND		ND ND	ND	ND
1.4-Dichlorobenzene (p-Dichlorobenzene)	10.0	ND	ND .	ND	ND	ND	ND ND	ND
Dichlorodifluoromethane	30.0	ND	ND	ND	ND	ND	ND	ND ND
1,1-Dichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1.2-Dichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (1,1-Dichloroethylene)	10.0	12.9	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	10.0	ND	3060	210	ND	ND	ND	ND
1,2-Dichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
2.2-Dichloropropane	10.0	ND ND	ND .	ND	ND	ND	ND	ND
1.1-Dichloropropene	10.0	ND	ND ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	10.0	ND	ND	ND ND	ND ND	ND	ND	ND
rans-1,3-Dichloropropene	10.0	ND	ND	ND	ND	ND ND	ND ND	ND
Ethylbenzene	2.00	ND	ND	ND	ND	ND	ND ND	ND ND
exachlorobutadiene (1.3-Hexachlorobutadiene)	30.0	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	50.0	ND	ND	ND	ND	ND	ND	ND
sopropylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
o-Isopropyltoluene (4-Isopropyltoluene)	10.0	ND	ND	ND	ND	ND	ND	ND
MTBE	5.00	ND	ND	ND	ND	ND	ND	ND
-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone) Methylene chloride (Dichloromethane, DCM)	50.0	ND	ND	ND	ND	ND	ND	ND
Vaphthalene	50.0	ND ND	ND	ND	ND	ND	ND	ND
h-Propylbenzene	10.0	ND ND	ND ND	ND	ND	ND	ND	ND
Styrene	10.0	ND	ND ND	ND ND	ND ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	10.0	ND	ND	ND	ND ND	ND ND	ND	ND
1,1,2,2-Tetrachloroethane	10.0	ND	ND	ND	ND	ND	ND ND	ND
Fetrachloroethene (Tetrachloroethylene) {PCE}	10.0	ND	ND	ND	21.7	ND	12.3	ND ND
Toluene (Methyl benzene)	2.00	ND	ND	ND	ND	ND	ND	ND ND
.2.3-Trichlorobenzene	10.0	ND	ND	ND	ND	ND	ND	ND ND
2.4-Trichlorobenzene	10.0	ND	ND	ND	ND	ND	ND	ND
.1,1-Trichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
,1.2-Trichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
richloroethene (TCE)	10.0	ND	ND	ND	53.1	ND	ND	ND
.2,3-Trichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
,2,4-Trimethylbenzene	10.0	ND ND	ND	ND	ND	ND	ND	ND
.3.5-Trimethylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
/invl acetate	10.0 50.0	ND ND	ND .	ND	ND	ND	ND	ND
/invi chloride (Chloroethene)	30.0	ND ND	ND ND	ND ND	ND ND	ND	ND	ND
p-Xylene	2.00	ND	ND	ND ND	ND ND	ND	ND	ND
m- & p-Xylenes	4.00	ND	ND	ND	ND	ND ND	ND ND	ND ND

NOTES:

VOC = Volatile Organic Compound

PQL = Practical Quantitation Limit

ND = Indicated constituents not detected above the PQL

ND<X = Indicated constituents not detected above the PQL of X



# TABLE 5 Soil Matrix Sample Results for VOCs 12922 Panama Street Los Angeles, California

VOCs in Soll	Bample ID: Date:	B58-2,6 6/7/2013	B58-6 6/7/2013	B61-2,5 5/31/2013	861-5.0 5/31/2011	862-2.5 5/31/2013	B62-6.0 5/34/2013	B63-2.5 6/7/2013
EPA Method 8260B	PAL (UP/ic):			AT A DESCRIPTION OF THE OWNER OWNER OF THE OWNER OWNE OWNER OWNE	oncentration		and the second of the	0/1/20/13
Acetone	50.0	ND	ND	ND	ND	ND	ND	ND
Benzene	2.00	ND	ND	ND	ND	2.54	ND	ND
Bromobenzene (Phenyl bromide)	10.0	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane (Chlorobromomethane)	10.0	ND	ND I	ND	ND	ND	ND	ND
Bromodichloromethane (Dichlorobromomethane) Bromoform (Tribromomethane)	10.0	ND	ND I	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	50.0	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK, Methyl ethyl ketone)	30.0	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	50.0	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	10.0	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride (Tetrachloromethane)	10.0	ND ND	ND	ND .	ND	ND	ND	ND
Chlorobenzene	10.0		ND	ND	ND	ND	ND	ND
Chloroethane	30.0	ND	ND I	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	50.0	ND	ND I	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	30.0	ND	ND	ND ND	ND	ND	ND	ND
4-Chlorotoluene (p-Chlorotoluene)	10.0	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene (o-Chlorotoluene)	10.0	ND	ND 1	ND ND	ND ND	ND	ND ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	50.0	ND	ND .	ND ND	ND	ND ND	ND	ND
Dibromochloromethane	10.0	ND	ND	ND	ND	ND ND	ND	ND
1,2-Dibromoethane (EDB, Ethylene dibromide)	10.0	ND	ND	ND	ND	ND ND	ND	ND
Dibromomethane	10.0	ND	ND	ND	ND	ND	ND ND	ND
1,2-Dichlorobenzene (o-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND ND	ND ND	ND ND
1,3-Dichlorobenzene (m-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND ND
1,4-Dichlorobenzene (p-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND ND	
Dichlorodifluoromethane	30.0	ND	ND	ND	ND	ND	ND	ND ND
1,1-Dichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	10,0	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (1,1-Dichloroethylene)	10.0	ND	ND	ND	ND	ND	ND	ND ND
cis-1,2-Dichloroethene	10.0	ND	ND .	ND	ND	ND	ND	ND
rans-1,2-Dichloroethene	10.0	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	10.0	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	10.0	ND	ND	ND	ND	ND	ND	ND
rans-1,3-Dichloropropene	10.0	ND	ND .	ND	ND	ND	ND	ND
Ethylbenzene	2.00	ND	ND	ND	ND	ND	ND	ND
-lexachlorobutadiene (1,3-Hexachlorobutadiene) 2-Hexanone	30.0	ND	ND	ND	ND	ND	ND	ND
sopropyibenzene	50.0	ND	ND	ND	ND	ND	ND	ND
p-lsopropyltoluene (4-lsopropyltoluene)	10.0	ND	ND	ND	ND	ND	ND	ND
MTBE	10.0	ND	ND	ND	ND	ND	ND	ND
-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)	5.00	ND	ND	ND	ND	ND	ND	ND
Methylene chloride (Dichloromethane, DCM)	50.0	ND	ND	ND	ND	ND	ND	ND
Vaphthalene	50.0	ND ND	ND	ND	ND	ND	ND	ND
h-Propylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Styrene	10.0	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
Fetrachloroethene (Tetrachloroethylene) {PCE}		ND 42.6	ND 10.2	ND	ND	ND	ND	ND
Foluene (Methyl benzene)	10.0 2.00	42.6 ND	12.3	33.9	34	71.8	13.3	ND
1,2,3-Trichlorobenzene	10.0	ND ND	ND	ND	ND	ND	ND	ND
,2,4-Trichlorobenzene	10.0	ND ND	ND ND	ND	ND	ND	ND	ND
1,1-Trichloroethane	10.0	ND		ND	ND	ND	ND	ND
,1,2-Trichloroethane	10.0	ND	ND ND	ND	ND	ND	ND	ND
richloroethene (TCE)	10.0	ND ND	ND ND	ND	ND	ND	ND	ND
richlorofluoromethane	10.0	ND	ND ND	ND	ND	22	ND	ND
,2,3-Trichloropropane	10.0	ND ND		ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	10.0		ND	ND ND	ND	ND	ND	ND
3,5-Trimethylbenzene	10.0	ND	ND ND	ND	ND	ND	ND	ND
Vinyl acetate	50.0	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (Chloroethene)	30.0	ND		ND	ND ND	ND	ND	ND
p-Xylene	2.00	ND	ND ND	ND	ND	ND	ND	ND
n- & p-Xylenes	4.00	ND	ND	ND	ND	ND	ND	ND
	4.00	ND.	NU	ND	ND	ND	ND	ND

NOTES:

VOC = Volatile Organic Compound PQL = Practical Quantilation Limit

ND = Indicated constituents not detected above the PQL

ND<X = Indicated constituents not detected above the PQL of X



VOCs in Soll by EPA Method 8260B		B63-5	\$66-215	B66-5	A05-10	15741.215	EN PATH	B64-5
by EPA Method 8260B	Date:	67/2019	5/28/2013	0+28/20 13	0/28/2013	6/28/2013	6/28/2013	6/28/20/14
Acetone	POL (re(ifs))	1-20 L			oncentration	aller aller aller and		A . ACCOUNTING ON A
Benzene	50.0	ND ND	ND I	ND	ND	69.6	ND	ND
Bromobenzene (Phenyl bromide)	10.0	ND	ND I	ND ND	ND ND	ND ND	ND	ND
Bromochloromethane (Chlorobromomethane)	10.0	ND	ND	ND	ND	ND ND	ND ND	ND ND
Bromodichloromethane (Dichlorobromomethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Bromoform (Tribromomethane)	50.0	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	30.0	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK. Methyl ethyl ketone)	50.0	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	10.0	ND ND	ND	ND ND	ND	ND	ND	ND
tert-Butylbenzene	10.0	ND	ND ND	ND ND	ND ND	ND	ND	ND
Carbon disulfide	10.0	ND	ND .	ND	ND	ND ND	ND ND	ND
Carbon tetrachloride (Tetrachloromethane)	10.0	ND	ND	ND	ND	ND	ND	ND ND
Chlorobenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Chloroethane	30.0	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether Chloroform (Trichloromethane)	50.0	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	10.0	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene (p-Chlorotoluene)	30.0	ND ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene (o-Chlorotoluene)	10.0	ND ND	ND ND	ND ND	ND ND	ND ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	50.0	ND	ND	ND	ND ND	ND ND	ND ND	ND
Dibromochloromethane	10.0	ND	ND .	ND	. ND	ND	ND ND	ND ND
1,2-Dibromoethane (EDB, Ethylene dibromide)	10.0	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene (o-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene (m-Dichlorobenzene) 1,4-Dichlorobenzene (p-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	10.0	ND ND	ND	ND	ND	ND	ND	ND
1.1-Dichloroethane	10.0	ND	ND ND	ND ND	ND ND	ND	ND	ND
1,2-Dichloroethane	10.0	ND	ND	ND	ND	ND ND	ND ND	ND
1,1-Dichloroethene (1,1-Dichloroethylene)	10.0	ND	ND	ND	ND	ND ND	ND ND	ND ND
cis-1,2-Dichloroethene	10.0	ND	ND	ND	ND	ND	ND	ND
rans-1,2-Dichloroethene	10.0	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	10.0	ND ND	ND ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	10.0	ND	ND ND	ND ND	ND	ND	ND	ND
rans-1,3-Dichloropropene	10.0	ND	ND	ND ND	ND ND	ND ND	ND	ND
Ethylbenzene	2.00	ND	ND	ND	ND I	ND	ND ND	ND ND
lexachlorobutadiene (1,3-Hexachlorobutadiene)	30.0	ND	ND	ND	ND	ND	ND	ND ND
2-Hexanone	50.0	ND	ND	ND	ND	ND	ND	ND
sopropylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
o-Isopropyltoluene (4-Isopropyltoluene)	10.0	ND	ND 1	ND	ND	ND	ND	ND
-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)	5.00	ND	ND	ND	ND	ND	ND	ND
Methylene chloride (Dichloromethane, DCM)	50.0	ND ND	ND :	ND	ND	ND	ND	ND
Naphthalene	10.0	ND	ND I	ND ND	ND ND	ND	ND	ND
n-Propylbenzene	10.0	ND	ND I	ND	ND ND	ND ND	ND	ND ND
Styrene	10.0	ND	ND 1	ND	ND	ND	ND ND	ND ND
1,1,1,2-Tetrachloroethane	10.0	ND	ND	ND	ND	ND	ND	ND ND
1,1,2,2-Tetrachloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
Fetrachloroethene (Tetrachloroethylene) {PCE}	10.0	ND	ND :	ND	ND	125	ND	ND
Toluene (Methyl benzene)	2.00	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	10.0	ND	ND	ND	ND	ND	ND	ND
1.1.1-Trichloroethane	10.0	ND ND	ND	ND	ND	ND	ND	ND
I,1,2-Trichloroethane	10.0	ND	ND ND	ND	ND	ND ND	ND	ND
Trichloroethene (TCE)	10.0	ND	ND	ND ND	ND ND	ND ND	ND	ND
Frichlorofluoromethane	10.0	ND	ND	ND ND	ND	ND ND	ND ND	ND
1,2,3-Trichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND ND
1,2,4-Trimethylbenzene	10.0	ND	ND	ND	ND	ND	ND ND	ND ND
	10.0	ND	ND	ND	ND	ND	ND	ND
1.3.5-Trimethylbenzene								
1.3.5-Trimethylbenzene /inyl acetate	50.0	ND	ND [	ND	ND	ND	ND	ND
1.3.5-Trimethylbenzene		ND ND ND	ND ND ND	ND ND ND		ND ND ND		

NOTES:

VOC = Volatile Organic Compound

PQL = Practical Quantitation Limit

ND = Indicated constiluents not detected above the PQL

ND<X = Indicated constituents not detected above the PQL of X



VOCs in Soil	Sample ID: Date	B64-10	866.2.5	866.5	866-10	667-2.5	B67-5	B67-10
by EPA Method 8260B	PQL (pullin)	6/28/2013	5/28/2013			8/28/2043	6/28/2013	6/28/20416
Acetone	50.0	ND	ND	ND	oncentration ND		LIG.	
Benzene	2.00	ND	ND	ND	ND	67 2.36	ND ND	ND
Bromobenzene (Phenyl bromide)	10.0	ND	ND	ND	ND	ND	ND	ND ND
Bromochloromethane (Chlorobromomethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane (Dichlorobromomethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Bromoform (Tribromomethane)	50.0	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	30.0	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK, Methyl ethyl ketone)	50.0	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	10.0	ND	<u>ND</u>	ND	ND	ND	ND	ND
tert-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	10.0	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride (Tetrachloromethane)	10.0	ND ND	ND I	ND	ND	23.2	ND	ND
Chlorobenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Chloroethane	30.0	ND ND	ND	ND ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	50.0	ND	ND I	ND	ND ND	ND ND	ND	ND
Chloroform (Trichloromethane)	10.0	ND	ND	ND	ND	ND	ND ND	ND ND
Chloromethane (Methyl chloride)	30.0	ND	ND	ND	ND	ND ND	ND	ND ND
4-Chlorotoluene (p-Chlorotoluene)	10.0	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene (o-Chlorotoluene)	10.0	ND	ND	ND	ND	ND	ND	ND ND
1,2-Dibromo-3-chloropropane (DBCP)	50.0	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB, Ethylene dibromide)	10.0	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene (o-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene (m-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene (p-Dichlorobenzene) Dichlorodifluoromethane	10.0	ND	ND i	ND	ND	ND	ND	ND
1.1-Dichloroethane	30.0	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (1,1-Dichloroethylene)	10.0	ND ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	10.0	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	10.0	ND	ND ND	ND ND	ND ND	ND	ND	ND
1,2-Dichloropropane	10.0	ND	ND	ND	ND	ND ND	ND	ND
1,3-Dichloropropane	10.0	ND	ND	ND		ND	ND	ND
2.2-Dichloropropane	10.0	ND	ND	ND	ND	ND		ND ND
1,1-Dichloropropene	10.0	ND	ND	ND	ND	ND	ND	ND ND
cis-1.3-Dichloropropene	10.0	ND	ND I	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	10.0	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	2.00	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene (1,3-Hexachlorobutadiene)	30.0	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	50.0	<u>ND</u>	ND j	ND	ND	ND	ND	ND
sopropylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene (4-Isopropyltoluene)	10.0	ND	ND	ND	ND	ND	ND	ND
MTBE	5.00	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone) Methylene chloride (Dichloromethane, DCM)	50.0	ND	ND	ND	ND	ND	ND	ND
Naphthalene	50.0	ND ND	ND :	ND	ND .	ND	ND	ND
n-Propylbenzene	10.0	ND ND	ND .	ND	ND	ND	ND	ND
Styrene	10.0	ND ND	ND ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	10.0	ND ND	ND i	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	10.0		ND :	ND ND	ND	ND	ND	ND
Tetrachloroethene (Tetrachloroethylene) {PCE}	10.0	ND	ND ND	ND ND	ND ND	ND	ND	ND
Toluene (Methyl benzene)	2.00	ND	ND ND		ND ND	62.0	ND	ND
1,2,3-Trichlorobenzene	10.0	ND	ND	ND	ND ND	ND ND	ND	ND
1,2,4-Trichlorobenzene	10.0	ND	ND	ND	ND	ND ND	ND	ND
1,1,1-Trichloroethane	10.0	ND	ND	ND	ND	ND ND	ND ND	ND
1,1.2-Trichloroethane	10.0	ND	ND	ND	ND	ND ND	ND	ND ND
Trichloroethene (TCE)	10.0	ND	ND	ND	ND	56.0	ND	ND
Trichlorofluoromethane	10.0	ND	ND	ND	ND	ND	ND	ND ND
1.2,3-Trichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
1.3.5-Trimethylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	50.0	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride (Chloroethene)	30.0	ND	ND	ND	ND	ND	ND	ND
0-Xylene	2.00	ND	ND	ND	ND	ND	ND	ND
m-&p-Xylenes	4.00	ND	ND	ND	ND	ND	ND	ND

NOTES:

VOC = Volatile Organic Compound

PQL = Practical Quantitation Limit

ND = Indicated constituents not detected above the PQL

ND<X = indicated constituents not detected above the PQL of X



	Sample ID:	B68-2.5	B68-6	18/69/2/5	B69-6	669-40	a /1.5	B70-5
VOCs in Soil	0].1(c)	6/28/2013	6/28/2013	6/28/2018	6/28/2013	6/28/20/13	80 280218 * 3	6/28/2013
by EPA Method 8260B	PQL (golko)			VOC C	oncentration	(HEIMA)		the state of the second
Acetone	50.0	50.4	ND	74	ND	ND	71.8	ND
Bromobenzene (Phenyl bromide)	2.00	ND	ND	6.06	ND	ND	3.28	ND
Bromochloromethane (Chlorobromomethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane (Dichlorobromomethane)	10.0	ND ND	ND ND	ND	ND	ND	ND	ND
Bromoform (Tribromomethane)	50.0	ND	ND	ND ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	30.0	ND	ND	ND	ND ND	ND	ND	ND
2-Butanone (MEK, Methyl ethyl ketone)	50.0	ND	ND I	ND	ND ND	ND ND	ND	ND
n-Butylbenzene	10.0	ND	ND	ND	ND	ND ND	ND ND	ND ND
sec-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND ND	ND
Carbon disulfide	10.0	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride (Tetrachloromethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene Chloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	30.0	ND	ND	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	50.0	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	10.0	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene (p-Chlorotoluene)	30.0	ND ND	ND I	ND	ND	ND	ND	ND
2-Chlorotoluene (o-Chlorotoluene)	10.0	ND ND	ND ND	ND	ND ND	ND ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	50.0	ND ND		ND ND	ND	ND	ND	ND
Dibromochloromethane	10.0	ND	ND i	ND ND	ND ND	ND	ND	ND
1,2-Dibromoethane (EDB, Ethylene dibromide)	10.0	ND	ND	ND	ND ND	ND ND	ND	ND ND
Dibromomethane	10.0	ND	ND	ND	ND	ND ND	ND ND	ND
1,2-Dichlorobenzene (o-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND ND
1,3-Dichlorobenzene (m-Dichlorobenzene)	10.0	ND	ND i	ND	ND	ND	ND ND	ND
1,4-Dichlorobenzene (p-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	30.0	ND	ND	ND	ND	ND	ND	ND
1.1-Dichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (1,1-Dichloroethylene)	10.0	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	10.0	ND	ND .	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	10.0	ND	ND	ND	ND	ND	ND	ND
1.2-Dichloropropane	10.0	ND ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	10.0	ND ND	ND	ND ND	ND	ND	ND	ND
2,2-Dichloropropane	10.0	ND	ND I	ND	ND ND	ND	ND	ND
1,1-Dichloropropene	10.0	ND	ND	ND	ND	ND ND	ND	ND
cis-1,3-Dichloropropene	10.0	ND	ND I	ND	ND	ND	ND ND	ND
trans-1,3-Dichloropropene	10.0	ND	ND	ND	ND	ND	ND	ND ND
Ethylbenzene	2.00	ND	ND	ND	ND	ND		ND
Hexachlorobutadiene (1,3-Hexachlorobutadiene)	30.0	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	50.0	ND	ND	ND	ND	ND	ND	ND
sopropylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene (4-Isopropyltoluene) MTBE	10.0	ND	ND	ND	ND	ND	ND	ND
MITOE Methyl-2-pentanone (MIBK, Methyl isobutyl kelone)	5.00	ND	ND	ND	ND	ND	ND	ND
Methylene chloride (Dichloromethane, DCM)	50.0 50.0	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10.0	ND ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	10.0	ND	ND I	ND	ND	ND	ND	ND
Styrene	10.0	ND	ND ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	10.0	ND		ND ND	ND ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	10.0	ND	ND I	ND ND	ND ND	ND	ND	ND
Tetrachloroethene (Tetrachloroethylene) {PCE}	10.0	11.5	ND	102	ND ND	ND 24.7	ND	ND
Toluene (Methyl benzene)	2.00	ND	ND	3.1	ND	24.7 ND	286 ND	ND
1.2.3-Trichlorobenzene	10.0	ND	ND	ND	ND	ND	ND ND	ND ND
1.2.4-Trichlorobenzene	10.0	ND	ND	ND	ND	ND	ND	ND ND
I,1,1-Trichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (TCE)	10.0	ND	ND	ND	ND	ND	16	ND
Frichlorofluoromethane	10.0	ND	ND	ND	ND	ND	ND	ND
	10.0	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane			ND	ND	ND	ND	ND	
1,2,3-Trichloropropane 1,2,4-Trimethylbenzene	10.0	ND						ND
1,2,3-Trichloropropane 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene	10.0 10.0	ND	ND	ND	ND	ND	ND	ND ND
1,2,3-Trichloropropane 1.2,4-Trimethylbenzene 1.3,5-Trimethylbenzene Vinyl acetate	10.0 10.0 50.0	ND ND	ND ND	ND ND	ND ND	ND ND		
1,2,3-Trichloropropane 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene Vinyl acetate Vinyl acetate o-Xviene	10.0 10.0	ND	ND	ND	ND	ND	ND	ND

NOTES:

VOC = Volatile Organic Compound

PQL = Practical Quantitation Limit

ND = Indicated constituents not detected above the PQL

ND<X = Indicated constituents not detected above the PQL of X



# TABLE 5 Soil Matrix Sample Results for VOCs 12922 Panama Street Los Angeles, California

VOCs in Soil	Sample ID: Date	E70 10	157/1-6	871-10	1272-2.8	Byle is	372-10	B73-2.6
by EPA Method 8260B	The second	6/28/2013	5/28/2013	(5/28//2(01/4)	0/28/2013	8/28/2013	6/28/2013	6/28/2013
Acetone	<sup>(1)</sup> , ((1)) 50.0	ND	ND	ND ND	oncentration			
Benzene	2.00	ND	ND	ND ND	70 5.18	61.4 ND	ND	ND
Bromobenzene (Phenyl bromide)	10.0	ND	ND	ND		ND	ND ND	8.52
Bromochloromethane (Chlorobromomethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane (Dichlorobromomethane)	10.0	ND	ND	ND	ND	ND	ND	ND ND
Bromoform (Tribromomethane)	50.0	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	30.0	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK, Methyl ethyl ketone)	50.0	ND	ND	ND	ND	ND	ND	ND
n-Butyibenzene	10.0	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene Carbon disulfide	10.0	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride (Tetrachloromethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Chloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	30.0	ND	ND	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)		ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene (p-Chlorotoluene)	30.0	ND ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene (o-Chlorotoluene)	10.0		ND ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	50.0	ND	ND	ND ND	ND ND	ND	ND	ND
Dibromochloromethane	10.0	ND	ND	ND	ND ND	ND	ND	ND
1,2-Dibromoethane (EDB, Ethylene dibromide)	10.0	ND	ND	ND ND	ND ND	ND	ND	ND
Dibromomethane	10.0	ND	ND	ND	ND ND	ND ND	ND	ND
1,2-Dichlorobenzene (o-Dichlorobenzene)	10.0	ND	ND	ND	ND ND	ND ND	ND ND	ND
1,3-Dichlorobenzene (m-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND ND	ND
1,4-Dichlorobenzene (p-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND ND
Dichlorodifluoromethane	30.0	ND	ND		ND	ND	ND	ND ND
1,1-Dichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (1,1-Dichloroethylene)	10.0	ND	ND i	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	10.0	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	10.0	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	10.0	ND	ND ;	ND	ND	ND	ND	ND
2,2-Dichloropropane	10.0	ND	ND ,	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	10.0	ND	ND ;	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	10.0	ND	ND j	ND	ND	ND	ND	ND
Ethylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene (1,3-Hexachlorobutadiene)		ND	ND .	ND	ND	ND	ND	ND
2-Hexanone	30.0 50.0	ND	ND	ND	ND	ND	ND	ND
sopropylbenzene	10.0	ND ND	ND ND	ND	ND	ND	ND	ND
p-Isopropyltoluene (4-Isopropyltoluene)	10.0	ND ND	ND		ND ND	ND	ND	ND
MTBE	5.00	ND .	ND 1	ND ND	ND ND	ND	ND	ND
-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)	50.0	ND	ND	ND		ND ND	ND	ND
Methylene chloride (Dichloromethane, DCM)	50.0	ND	ND	ND	ND ND	ND ND	ND	ND
Naphthalene	10.0	ND	ND	ND		ND	ND ND	ND
n-Propylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Styrene	10.0	ND	ND	ND	ND ND	ND	ND	ND ND
1,1,1,2-Tetrachloroethane	10.0	ND	ND	ND	ND	ND	ND	
1.1,2,2-Tetrachloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (Tetrachloroethylene) {PCE}	10.0	ND	32.0	75.4	400	18.7	31.2	210
Toluene (Methyl benzene)	2.00	ND	ND	ND	2.48	ND	ND	4.04
1,2,3-Trichlorobenzene	10.0	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	10.0	ND	ND	ND	ND	ND	ND	ND
1.1.1-Trichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
I,1.2-Trichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (TCE)	10.0	ND	ND	ND	ND	ND	ND	ND
Frichlorofluoromethane	10.0	ND	ND	ND	ND	ND	ND	ND
2.3-Trichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
,2,4-Trimethylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
/inyl acetate	50.0	ND	ND	ND	ND	ND	ND	ND
/invl chloride (Chloroethene)	30.0	ND	ND	ND	ND	ND	ND	ND
p-Xylene	2.00	ND	ND	ND	ND	ND	ND	ND
m- & p-Xylenes	4.00	ND	ND	ND	ND			

NOTES:

VOC = Volatile Organic Compound

PQL = Practical Quantitation Limit

ND = Indicated constituents not detected above the PQL

ND<X = Indicated constituents not detected above the PQL of X



VOCs in Soil	Sample ID: Date:	B73-5 6/28/2013	873-10 6/28/2013	VA1-10	VAI-16	VA1-20	GW1-2.6	GW1 5
by EPA Method 8260B	(up/kg)	0040(2003)	0/20/2013	6/7/2013	117/2018	37/94013	6/4/2013	6/4/2013
Acetone	50.0	ND	ND I	ND	ncentration ND			
Benzene	2.00	ND	ND	ND	ND	ND ND	109.00	ND
Bromobenzene (Phenyl bromide)	10.0	ND	ND	ND	ND	ND	3.24 ND	ND
Bromochloromethane (Chlorobromomethane)	10.0	ND	ND	ND	ND	ND	ND	ND ND
Bromodichloromethane (Dichlorobromomethane)	10.0	ND	ND	ND	ND	ND	ND	ND ND
Bromoform (Tribromomethane)	50.0	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	30.0	NĎ	ND	ND	ND	ND	ND	ND
2-Butanone (MEK, Methyl ethyl ketone)	50.0	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene sec-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	10.0	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride (Tetrachloromethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Chloroethane	30.0	ND ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	50.0	ND	ND	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	10.0	ND	ND ND	ND ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	30.0	ND	ND	ND ND	ND ND	ND	ND	ND
4-Chlorotoluene (p-Chlorotoluene)	10.0	ND	ND		ND ND	ND	ND	ND
2-Chlorotoluene (o-Chlorotoluene)	10.0	ND	ND	ND ND	ND ND	ND ND	ND ND	ND ND
1.2-Dibromo-3-chloropropane (DBCP)	50.0	ND	ND	ND	ND	ND	ND ND	ND ND
Dibromochloromethane	10.0	ND	ND	ND	ND	ND	ND	ND ND
1,2-Dibromoethane (EDB, Ethylene dibromide)	10.0	ND	ND	ND	ND	ND	ND	ND ND
Dibromomethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene (o-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene (m-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND
1.4-Dichlorobenzene (p-Dichlorobenzene)	10.0	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	30.0	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (1,1-Dichloroethylene)	10.0	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	10.0	ND ND	ND	ND	ND	ND	ND	ND
trans-1.2-Dichloroethene	10.0	ND ND	ND :	11.1	ND	ND	120	10.5
1.2-Dichloropropane	10.0	ND	ND ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	10.0	ND	ND	ND ND	ND	ND	ND	ND
2,2-Dichloropropane	10.0	ND	ND	ND	ND ND	ND	ND	ND
1,1-Dichloropropene	10.0	ND	ND	ND	ND	ND ND	ND	ND
cis-1.3-Dichloropropene	10.0	ND	ND	ND	ND	ND	ND ND	ND
trans-1.3-Dichloropropene	10.0	ND	ND	ND	ND	ND	ND ND	ND ND
Ethylbenzene	2.00	ND	ND	ND	ND	ND	ND	ND
lexachlorobutadiene (1,3-Hexachlorobutadiene)	30.0	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	50.0	ND	ND	ND	ND	ND	ND	ND
sopropylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene (4-Isopropyltoluene)	10.0	ND	ND	ND	ND	ND	ND	ND
MTBE	5.00	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-penianone (MiBK, Methyl isobutyl ketone)	50.0	ND	ND	ND	ND	ND	ND	ND
Methylene chloride (Dichloromethane, DCM)	50.0	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10.0	ND	ND	ND	ND	ND	ND	ND
Styrene	10.0	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	10.0	ND ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (Tetrachloroethylene) {PCE}	10.0	ND ND	ND 29.6	ND 45.7	ND	ND	ND	ND
Toluene (Methyl benzene)	2.00		29.6 ND	45.7 ND	ND	ND	31.4	ND
1.2.3-Trichlorobenzene	10.0	ND	ND ND	ND ND	ND	ND	2.28	ND
1.2,4-Trichlorobenzene	10.0	ND	ND	ND	ND ND	ND	ND	ND
1,1,1-Trichloroethane	10.0	ND	ND	ND ND	ND ND	ND	ND	ND
1.1.2-Trichloroethane	10.0	ND	ND	ND	ND	ND ND	ND	ND
Trichloroethene (TCE)	10.0	ND	ND	ND	ND	ND ND	ND 24.6	ND ND
frichlorofluoromethane	10.0	ND	ND	ND	ND	ND ND	31.6 ND	ND
1,2,3-Trichloropropane	10.0	ND	ND	ND	ND	ND	ND ND	ND
1,2,4-Trimethylbenzene	10.0	ND	ND	ND	ND	ND	ND ND	ND
1,3,5-Trimethylbenzene	10.0	ND	ND	ND	ND ND	ND	ND ND	ND
/inyl acetate	50.0	ND	ND	ND	ND	ND	ND ND	ND
/inyl chloride (Chloroethene)	30.0	ND	ND	ND	ND	ND	ND	ND ND
p-Xylene	2.00	ND	ND	ND	ND	ND	ND	ND
m- & p-Xylenes	4.00	ND	ND .	ND	ND	ND	ND	ND

NOTES:

VOC = Volatile Organic Compound

PQL = Practical Quantitation Limit

ND = Indicated constituents not detected above the PQL

ND<X = Indicated constituents not detected above the PQL of  $X^{\!\times}$ 



VOCs in Soil	Sample (9)	GW/I 10	CW/14#	GW2-2.5	GW/2-5	GW/2-110	CN12-18	CW3-2.5
by EPA Method 8260B	POL (un/ka):	6/4/2013	6/4/2013	6/4/2013	8/5/2013	6/6/2013	6/5/2013	6/4/2013
Acetone	50.0	ND	ND		oncentration			
Benzene	2.00	ND	ND	ND ND	ND	ND	ND	ND
Bromobenzene (Phenyl bromide)	10.0	ND	ND	ND	ND ND	ND	ND	ND
Bromochloromethane (Chlorobromomethane)	10.0	ND	ND	ND	ND	ND ND	ND	ND
Bromodichloromethane (Dichlorobromomethane)	10.0	ND	ND	ND	ND	ND	ND ND	ND
Bromoform (Tribromomethane)	50.0	ND	ND	ND	ND	ND ND	ND	ND ND
Bromomethane (Methyl bromide)	30.0	ND	ND .	ND	ND	ND	ND	ND
2-Butanone (MEK, Methyl ethyl ketone)	50.0	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
ert-Butylbenzene	10.0	ND	ND	ND	NĎ	ND	ND	ND
Carbon disulfide	10.0	<u>ND</u>	ND	ND	ND	ND	ND	ND
Carbon tetrachloride (Tetrachloromethane)	10.0	ND	ND	ND	ND	ND	ND	ND
Chloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	30.0	ND	ND	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	50.0	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	10.0	ND	ND	ND	ND	ND	ND	ND
-Chlorotoluene (p-Chlorotoluene)	30.0	ND	ND :	ND	ND	ND	ND	ND
-Chlorotoluene (o-Chlorotoluene)	10.0	ND ND	ND i	ND ND	ND ND	ND	ND	ND
.2-Dibromo-3-chloropropane (DBCP)	50.0	ND ND	ND !	ND	ND	ND	ND	ND
Dibromochloromethane	10.0	ND ND	ND	ND	ND	ND	ND	ND
.2-Dibromoethane (EDB, Ethylene dibromide)	10.0	ND ND	ND	ND	ND	ND	ND	ND
Dibromomethane	10.0	ND ND		ND ND	ND ND	ND	ND	ND
.2-Dichlorobenzene (o-Dichlorobenzene)	10.0	ND	ND	ND ND		ND	ND	<u>ND</u>
,3-Dichlorobenzene (m-Dichlorobenzene)	10.0	ND	ND I	ND	ND ND	ND	ND	ND
.4-Dichlorobenzene (p-Dichlorobenzene)	10.0	ND	ND	ND	ND ND	ND ND	ND ND	ND
Dichlorodifluoromethane	30.0	ND	ND	ND	ND ND	ND	ND	ND
,1-Dichloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
,2-Dichloroethane	10.0	ND	ND I	ND	ND	ND	ND ND	ND
1,1-Dichloroethene (1,1-Dichloroethylene)	10.0	ND	ND	ND	ND .	ND	ND	ND ND
cis-1,2-Dichloroethene	10.0	ND	12.9	ND	ND	ND	ND	ND ND
rans-1,2-Dichloroethene	10.0	ND	ND	ND	ND	ND	ND	ND
.2-Dichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
,3-Dichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	10.0	ND	ND	ND	ND	ND	ND	ND
1-Dichloropropene	10.0	ND	ND	ND	ND	ND	ND	ND
is-1,3-Dichloropropene	10.0	ND	ND	ND	ND	ND	ND	ND
rans-1,3-Dichloropropene	10.0	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	2.00	ND	ND	ND	ND	ND	ND	ND
lexachlorobutadiene (1,3-Hexachlorobutadiene)	30.0	ND	ND	ND	ND	ND	ND	ND
	50.0	ND	ND	ND	ND	ND	ND	ND
sopropylbenzene sopropyltoluene (4-isopropyltoluene)	10.0	ND	ND	ND	ND	ND	ND	ND
Атве	10.0	ND	ND	ND	ND	ND	ND	ND
-Methyl-2-penlanone (MIBK, Methyl isobutyl ketone)	5.00	ND	ND	ND	ND	ND	ND	ND
Aethylene chloride (Dichloromethane, DCM)	50.0	ND	ND	ND	ND	ND	ND	ND
laphthalene	50.0	ND	ND	ND	ND	ND	NĎ	ND
-Propylbenzene	10.0	ND	ND	ND	ND	ND	ND	ND
Styrene	10.0	ND ND	ND	ND	ND	ND	ND	ND
,1,1,2-Tetrachloroethane	10.0	ND	ND	ND	ND	ND	ND	ND
1.2.2-Tetrachloroethane	10.0	ND ND	ND	ND	ND	ND	ND	ND
etrachloroethene (Tetrachloroethylene) {PCE}				ND	ND	ND	ND	ND
oluene (Methyl benzene)	10.0	ND ND	ND ND	ND	ND	ND	ND	2,960
,2,3-Trichlorobenzene	10.0	ND	ND	ND	ND	ND	ND	ND
2.4-Trichlorobenzene	10.0	ND	ND ND	ND ND	ND	ND	ND	ND
1,1-Trichloroethane	10.0	ND	ND		ND	ND	ND	ND
1.2-Trichloroethane	10.0	ND	ND ND	ND	ND ND	ND	ND	ND
richloroethene (TCE)	10.0	ND	ND	ND ND	ND ND	ND	ND	ND
richlorofluoromethane	10.0	ND	ND I	ND	ND	ND	ND	56.0
2,3-Trichloropropane	10.0	ND	ND 1	ND ND	ND ND	ND	ND	ND
,2,4-Trimethylbenzene	10.0	ND	ND I		ND	ND ND	ND	ND
3,5-Trimethylbenzene	10.0	ND	ND	ND ND	ND ND	ND ND	ND ND	ND
inyl acetate	50.0	ND	ND 1	ND ND	ND	ND	ND	ND
/inyl chloride (Chloroethene)	30.0	ND .	ND 1	ND	ND	ND ND	ND	ND
ing chone (onloroculone)			110	IND	NU	ND	ND	ND
-Xylene	2.00	ND	ND	ND	ND	ND	ND	ND

NOTES:

VOC = Volatile Organic Compound PQL = Practical Quantitation Limit

ND = Indicated constituents not detected above the PQL ND<X = Indicated constituents not detected above the PQL of X



# TABLE 5 Soil Matrix Sample Results for VOCs 12922 Panama Street Los Angeles, California

VOCs in Soil	Sample ID; Date:	GIN3-6 6/4/2013	CW3 10 8/4/2013	GW8-16 6/4/20/8
by EPA Method 8260B	Tell (ugfkg)		oncen ration	
Acetone	50.0	ND	ND	ND
Benzene	2.00	ND	ND	ND
Bromobenzene (Phenyl bromide)	10.0	ND	ND	ND
Bromochloromethane (Chlorobromomethane) Bromodichloromethane (Dichlorobromomethane)	10.0	ND	ND	ND
Bromoform (Tribromomethane)	10.0	ND	ND	ND
Bromomethane (Methyl bromide)	<u>50.0</u> 30.0	ND ND	ND	ND
2-Butanone (MEK, Methyl ethyl ketone)	50.0	ND	ND ND	ND
n-Butylbenzene	10.0	ND	ND ND	ND ND
sec-Butylbenzene	10.0	ND	ND	ND
tert-Butylbenzene	10.0	ND	ND	ND
Carbon disulfide	10.0	ND	ND	ND
Carbon tetrachloride (Tetrachloromethane)	10.0	ND	ND	ND
Chlorobenzene	10.0	ND	ND	ND
Chloroethane	30.0	ND	ND	ND
2-Chloroethyl vinyl ether	50.0	ND	ND	ND
Chloroform (Trichloromethane)	10.0	ND	ND	ND
Chloromethane (Methyl chloride)	30.0	ND	ND	ND
4-Chlorotoluene (p-Chlorotoluene) 2-Chlorotoluene (o-Chlorotoluene)	10.0	ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	10.0	ND	ND	ND
Dibromochloromethane	50.0	ND ND	ND	ND ND
1,2-Dibromoethane (EDB, Ethylene dibromide)	10.0	ND ND	ND	ND
Dibromomethane	10.0	ND ND	ND ND	ND
1,2-Dichlorobenzene (o-Dichlorobenzene)	10.0	ND	ND	ND ND
1,3-Dichlorobenzene (m-Dichlorobenzene)	10.0	ND	ND	ND
1,4-Dichlorobenzene (p-Dichlorobenzene)	10.0	ND	ND	ND
Dichlorodifluoromethane	30.0	ND	ND	ND
1,1-Dichloroethane	10.0	ND	ND	ND
1.2-Dichloroethane	10.0	ND	ND	ND
1,1-Dichloroethene (1,1-Dichloroethylene)	10.0	ND	ND	ND
cis-1,2-Dichloroethene	10.0	ND	ND	ND
trans-1,2-Dichloroethene	10.0	ND	ND	ND
1,2-Dichloropropane	10.0	ND	ND	ND
1,3-Dichloropropane 2,2-Dichloropropane	10.0	ND	ND	ND
1,1-Dichloropropene	10.0	ND	ND	ND
cis-1,3-Dichloropropene	10.0	ND	ND	ND
trans-1,3-Dichloropropene	10.0	ND	ND	ND
Ethylbenzene	10.0	ND	ND	ND
Hexachlorobutadiene (1,3-Hexachlorobutadiene)	2.00	ND ND	ND	ND
2-Hexanone	30.0 50.0	ND	ND	ND
Isopropylbenzene	10.0	ND	ND ND	ND
p-Isopropyltoluene (4-Isopropyltoluene)	10.0	ND	ND	ND ND
MTBE	5.00	ND	ND	ND
4-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)	50.0	ND	ND	ND ND
Methylene chloride (Dichloromethane, DCM)	50.0	ND	ND	ND
Naphthalene	10.0	ND	ND	ND
n-Propylbenzene	10.0	ND	ND	ND
Styrene	10.0	ND	ND	ND
1,1,1.2-Tetrachloroethane	10.0	ND	ND	ND
1.1,2,2-Tetrachloroethane	10.0	ND	ND	ND
Tetrachloroethene (Tetrachloroethylene) {PCE}	10.0	56.4	324	71.2
Toluene (Methyl benzene)	2.00	ND	ND	ND
1,2,3-Trichlorobenzene	10.0	ND	ND	ND
1,2.4-Trichlorobenzene	10.0	ND	ND	ND
1.1.1-Trichloroethane	10.0	ND	ND	ND
Trichloroethene (TCE)	10.0	ND	ND	ND
Trichlorofluoromethane	10.0	ND	ND	ND
1,2,3-Trichloropropane	10.0	ND	ND	ND
1,2,4-Trimethylbenzene	10.0	ND	ND	ND
1,3,5-Trimethylbenzene	10.0	ND	ND	ND
Vinyl acetate	10.0	ND	ND	ND
Vinyl chloride (Chloroethene)	50.0	ND	ND	ND
o-Xylene	30.0	ND ND	ND ND	ND
m- & p-Xylenes	4.00	ND ND	ND ND	ND ND

NOTES:

VOC = Volatile Organic Compound

PQL = Practical Quantitation Limit

ND = Indicated constituents not detected above the PQL

ND<X = Indicated constituents not delected above the PQL of X



VOCs in Soli Vapor	Sample (D) Date:	SV/1-5 5/8/2013	5V1-10 5/8020065	SV2-4 5/6/2018	SV/2-6	SV3-5 5/6/2013	SV8-10 5/6/2013
by EPA Method 8260B	POL (UPIL)	and the second s	the state of the s		trations (Lg( )	BUDINUTS)	1 Energina 3
Benzene	0.010	ND		•			1
Bromobenzene	0.010	ND					•
Bromodichloromethane	0.010	ND		•			· ·
Bromoform	0.010	ND			•	•	
Butylbenzene	0.010	ND		•	•	•	•
sec-Butylbenzene			·	•	•	•	
ert-Butylbenzene	0.010	ND	•	•	•		
	0.010	ND	•	•	•	•	
Carbon tetrachloride	0.010	ND	•		•	•	•
Chlorobenzene	0.010	ND	•	•	•	•	
Chloroethane	0.010	ND	•		•	•	
Chloroform	0.010	ND			•		
Chloromethane	0.010	ND					
2-Chlorotoluene	0.010	ND					
-Chlorotoluene	0.010	ND					
Dibromochloromethane	0.010	ND					•
,2-Dibromo-3-chloropropane	0.010	ND				•	
,2-Dibromoethane (EDB)	0.010				•		•
Dibromomethane		ND	•		•	•	a
	0.010	ND	•	•	•	•	
,2- Dichlorobenzene	0.010	ND					
1,3-Dichlorobenzene	0.010	ND	•	•	•	•	
,4-Dichlorobenzene	0.010	ND	•		•		
Dichlorodifluoromethane	0.010	ND					
1.1-Dichloroethane	0.010	ND					
1,2-Dichloroethane	0.010	ND					
1,1-Dichloroethene	0.010	ND					
sis-1,2-Dichloroethene	0.010	ND				•	· · ·
rans-1,2-Dichloroethene	0.010	ND				•	
.2-Dichloropropane			•	•	•	•	
,3-Dichloropropane	0.010	ND	•		•	•	
	0.010	ND	•	•	•	•	
2,2-Dichloropropane	0.010	ND				•	
1-Dichloropropene	0.010	ND	•	•			
sis-1,3-Dichloropropene	0.010	ND					
rans-1,3-Dichloropropene	0.010	ND					
thylbenzene	0.010	ND					
reon 113	0.010	2.82				•	
lexachlorobutadiene	0.010	ND					•
sopropylbenzene	0.010	ND				•	•
-Isopropyltoluene	0.010	ND				•	•
Aethylene chloride				•	•		
Vaphthalene	0.010	ND	•	•			•
	0.010	ND	•	•	•	•	•
n-Propylbenzene	0.010	ND		. •	•	•	•
Styrene	0.010	ND	•	. •	•		
,1,1,2-Tetrachloroethane	0.010	ND					
1,2,2-Tetrachloroethane	0.010	ND	•				
etrachloroethylene (PCE)	0.010	ND		•	•		
oluene	0.010	ND					•
2,3-Trichlorobenzene	0.010	ND					•
2,4-Trichlorobenzene	0.010	ND		•	· ·	•	•
1,1,1-Trichloroethane	0.010		· · ·	•	•	•	•
		ND	· · ·	•			•
,1,2-Trichloroethane	0.010	ND	•		•		•
richloroethylene (TCE)	0.010	ND	•	•		•	
richlorofluoromethane	0.010	ND	•	•	•	•	
,2,3-Trichloropropane	0.010	ND	•				
,2,4-Trimethylbenzene	0.010	ND	•		•		
,3,5-Trimethylbenzene	0.010	ND					
inyl chloride	0.010	ND	•	•			•
(ylenes	0.010				•	•	•
ATBE		ND	· · ·	•	•	•	•
	0.010	ND	•	•			•
thyl-tert-butylether	0.010	ND	•			•	•
Di-isopropylether	0.010	ND	•				
ert-amylmethylether	0.010	ND	•			•	
ert-Butylalcohol	0.050	ND	•				
Dilution Factor		1	•				

NOTES: VOC - Volatile Organic Compound POLs - Practical Quantitation Limits ND - Not Detected Above the PQL - No Sample Collected Due to Lack of Flow - Dilutions for these compounds P - Purge Volume



VOCs in Soll Vapor	Sample ID Daros	SV6.5 5/6/2013	SV6-10	SV6 10 RGF	SVE F	SV/a-10	SW015
by EPA Method 8260B	PIDL (Lig.L)	STOLEL 19	5(6)\$207(8)	5/6/2018	句历9013	5/6/2013	54542011
Benzene	0.010	ND	ND	VOC Concern			
Bromobenzene	0.010	ND	ND	ND ND	ND	ND	ND
Bromodichloromethane	0.010	ND	ND	ND	ND	ND	ND
Bromoform	0.010	ND	ND	ND	ND	ND ND	ND
-Butylbenzene	0.010	ND	ND	ND	ND	ND	ND
ec-Butylbenzene	0.010	ND	ND	ND	ND	ND	ND
ert-Butylbenzene	0.010	ND	ND		ND	ND	ND
Carbon tetrachloride	0.010	ND	ND	ND	ND	ND	ND
Chlorobenzene	0.010	ND	ND	ND ND	0.092	0.037	ND
Chloroethane	0.010	ND	ND	ND	ND	ND	ND
Chloroform	0.010	ND	ND	ND	ND	ND	ND
Chloromethane	0.010	ND	ND		ND	ND	ND
-Chlorotoluene	0.010	ND	ND	ND ND	ND	ND	ND
-Chlorotoluene	0.010	ND	ND		ND	ND	ND
Dibromochloromethane	0.010	ND ND	ND	ND	ND	ND	ND
2-Dibromo-3-chloropropane	0.010	ND ND		ND	ND	ND	ND
,2-Dibromoethane (EDB)	0.010	ND	ND	ND	ND	ND	ND
Dibromomethane			ND	ND	ND	ND	ND
,2- Dichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
3-Dichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
.4-Dichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
Jichlorodifluoromethane	0.010	ND	ND	ND	ND	ND	ND
.1-Dichloroethane	0.010	ND	ND	ND	ND	ND	ND
,2-Dichloroethane	0.010	ND	ND	0.05	ND	ND	2.24
,1-Dichloroethene	0.010	ND	ND	ND	ND	ND	ND
	0.010	ND	ND	ND	ND	ND	ND
is-1,2-Dichloroethene	0.010	ND	0.287	0.052	0.859	1.79	386*
rans-1,2-Dichloroethene	0.010	ND	ND	4.01	ND	ND	ND
,2-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
,3-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
2-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
,1-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
is-1,3-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
ans-1,3-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
thylbenzene	0.010	ND	ND	ND	ND	NO	ND
reon 113	0.010	6.47	8.35	7.35	690*	848*	23.6*
lexachlorobutadiene	0.010	ND	ND	ND	ND	ND	ND
sopropylbenzene	0.010	ND	ND	ND	ND	ND	ND
Isopropyltoluene	0.010	ND	ND	ND	ND	ND	ND
lethylene chloride	0.010	ND	ND	ND	ND	ND	ND
laphthalene	0.010	ND	ND	ND	ND	ND	ND
-Propylbenzene	0.010	ND	ND	ND	ND	ND	ND
Slyrene	0.010	ND	ND	ND	ND	ND	ND
1,1,2-Tetrachloroethane	0.010	ND	ND	ND	ND	ND	ND
1,2,2-Tetrachloroethane	0.010	ND	ND	ND	ND	ND	ND
etrachloroethylene (PCE)	0.010	2.61	3.53	3.96	79.5*	107*	31.9*
oluene	0.010	ND	ND	ND	ND	ND	
,2,3-Trichlorobenzene	0.010	ND	ND	ND	ND		
2,4-Trichlorobenzene	0.010	ND	ND	ND	ND ND	ND ND	ND ND
1,1-Trichloroethane	0.010	0.132	0,046	0.118	3.27	2.71	ND ND
1,2-Trichloroethane	0.010	ND	ND	ND	0.468	0.588	
richloroethylene (TCE)	0.010	9.51	11.4	12.4	7.46		ND
richlorofluoromethane	0.010	ND	ND	ND	ND	8.77	27.7*
2,3-Trichloropropane	0.010	ND	ND	ND		ND	ND
2,4-Trimethylbenzene	0.010	ND	ND	ND	ND	ND	ND
3,5-Trimethy/benzene	0.010	ND	ND		ND	ND	ND
inyl chloride	0.010	ND		ND	ND	ND	ND
vlenes	0.010		ND	ND	ND	ND	ND
1TBE		ND	ND	ND	ND	NO	ND
thyl-tert-butylether	0.010	ND	ND	ND	ND	ND	ND
	0.010	ND	ND	ND	ND	ND	ND
Di-isopropylether	0.010	ND	ND	ND	ND	ND	ND
ert-amylmethylether	0.010	ND	ND	ND	ND	ND	ND
ert-Butylalcohol	0.050	ND	ND	ND	ND	ND	ND
Dilution Factor	and the second sec	1	1	1	1/20*	1/20*	1/10*

NOTES:

NOTES: VOC - Volatile Organic Compound PQLs - Practical Quantitation Limits ND - Not Detected Above the PQL \* - No Sample Collected Due to Lack of Flow \* - Dilutions for these compounds P - Purge Volume



VOCs in Soll Vapor	Sample 10 Dates	<u>399-00</u>	SV10 5 1P	SV10-5-3F	SV404 NOP	SVAN-5	SW/60-40
by EPA Method 8260B	POL (ngll.)	attenget atte	562018	5(6-201-3	5/17/20118	5/802013	9.6720%3
Benzene	0.010	ND	L NR	VCC Concent			-
romobenzene	0.010	ND	ND	ND	ND	ND	ND
romodichloromethane		ND	ND	ND	ND	ND	ND
romoform	0.010	ND	ND	ND	ND	ND	ND
-Butylbenzene	0.010	ND	ND	ND	ND	ND	ND
ec-Butylbenzene	0.010	ND	ND	ND	ND	ND	ND
ert-Butylbenzene		ND	ND	ND	ND	ND	ND
arbon tetrachloride	0.010	ND	ND	ND	ND	ND	ND
chlorobenzene		ND	0.047	0.053	0.134	ND	ND
hloroethane	0.010	ND	ND	ND	ND	ND	ND
hloroform	0.010	ND	ND	IND	ND	ND	ND
hloromethane	0.010	ND	0.245	0.036	0.032	ND	ND
-Chlorotoluene	0.010	ND	ND	ND	ND	ND	ND
-Chlorotoluene	0.010	ND	ND	ND	ND	ND	ND
	0.010	ND	ND	ND	ND	ND	ND
ibromochloromethane	0.010	ND	ND	ND	ND	ND	ND
2-Dibromo-3-chloropropane	0.010	ND	ND	ND	ND	ND	ND
2-Dibromoethane (EDB)	0.010	ND	ND	ND	ND	ND	ND
bromomethane	0.010	ND	ND	ND	ND	ND	ND
2- Dichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
3-Dichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
4-Dichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
ichlorodifluoromethane	0.010	ND	ND	ND	ND	ND	ND
1-Dichloroethane	0.010	2.25	ND	ND	ND	ND	ND
2-Dichloroethane	0.010	ND	ND	ND	ND	ND	ND
1-Dichloroethene	0,010	ND	ND	ND	ND	ND	ND
s-1,2-Dichloroethene	0.010	281*	0.665	0.628	2.00	27.1*	14.4*
ans-1,2-Dichloroethene	0.010	0.866	ND -	ND	ND	67.9*	68.1
2-Dichloropropane	0,010	ND	ND	ND	ND	ND	ND
3-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
2-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
1-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
s-1,3-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
ans-1,3-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
thylbenzene	0.010	ND	ND	ND	ND	ND	ND
reon 113	0.010	22.9*	ND	ND	ND	ND	ND
exachlorobutadiene	0.010	ND	31.5	35.8	62.7	ND	ND
opropylbenzene	0.010	ND	ND	ND	ND	ND	ND
isopropyltoluene	0.010	ND	ND	ND	ND	ND	ND
ethylene chloride	0.010	ND	ND	ND	ND	ND	ND
aphthalene	0.010	ND	ND	ND	ND	ND	ND
Propylbenzene	0.010	ND	ND	ND	ND	ND	ND
lyrene	0.010	ND	ND	ND	ND	ND	ND
1,1,2-Tetrachloroethane	0.010	ND	ND	ND	ND	ND	ND
1,2,2-Tetrachloroethane	0.010	ND	ND	ND	ND	ND	ND
etrachloroethylene (PCE)	0.010	19.4*	3,040*	5,280*	6,400*	3.53*	9.98*
pluene	0,010	ND	ND	ND	ND	ND	9.96 ND
2,3-Trichlorobenzene	0.010	ND	ND	ND	ND	ND	
2,4-Trichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
1,1-Trichloroethane	0.010	ND	0.624	0.907	2.36	ND	ND
1,2-Trichloroethane	0.010	0.163	ND	ND	ND	0.116	ND
ichloroethylene (TCE)	0.010	25.4*	9,25	10.8	29.0	5.84	0.131
ichlorofluoromethane	0.010	ND	ND	ND	ND		6.68
2,3-Trichloropropane	0.010	ND	ND	ND	ND	ND	ND ND
2,4-Trimethylbenzene	0.010	ND	ND	ND		ND ND	ND
3,5-Trimethylbenzene	0.010	ND	ND	ND	ND	ND ND	ND
nyl chloride	0.010	ND ND	ND	ND	ND	ND	ND
lenes	0.010	ND	ND		ND	ND	ND
TBE	0.010			ND	ND	ND	ND
hyl-tert-bulylether	0.010	ND ND	ND	ND	ND	ND	ND
-isopropylether	0.010	ND	ND	ND	ND	ND	ND
rt-amylmethylether		ND ND	ND	ND	ND	ND	ND
rt-Butylaicohoi	0.010	ND	ND	ND	ND	ND	ND
Dilution Factor	0.050	ND	ND	ND	ND	ND	ND
		1/20*	1/200*	1/200*	1/200*	1/5*	1/50*

NOTES:

VOC - Volatile Organic Compound

POLs - Practical Quanitation Limits ND - Not Detected Above the PQL - No Sample Collected Due to Lack of Flow - Dilutions for these compounds P - Purge Volume





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VOCs in Soll Vapor	Sampit (D) Date:	SV43-5 56 (2013)	SV03-70 5/6/2033	SV10.5 5/8/2013	S)//44 10 https://40	SV16.5	SW15.5 DHE
by EPA Method 8260B	PIOL GUILT	the state of the s	It started as		trations (µg/L)	108010	TORNUS
Benzene	0.010	ND	ND	ND	ND	ND	
Bromobenzene	0.010	ND	ND	ND	ND	ND ND	ND
Bromodichloromethane	0.010	ND	ND	ND	ND	ND	ND
Bromoform	0.010	ND	ND	ND	ND	ND	ND
-Butylbenzene	0.010	ND	ND	ND	ND	ND	ND
ec-Butylbenzene	0.010	ND	ND	ND	ND	ND	ND
ert-Butylbenzene	0.010	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	0.010	ND	ND	ND	ND	ND	ND
Chlorobenzene	0.010	ND	ND	ND	ND	ND	ND
Chloroethane	0.010	ND	ND	ND	ND	ND	ND
Chloroform	0.010	ND	0.057	ND	ND		ND
Chioromethane	0.010	ND	ND	ND	ND	ND ND	ND
-Chlorotoluene	0.010	ND	ND	ND	ND		ND
-Chlorotoluene	0.010	ND	ND	ND	ND	ND	ND
Dibromochloromethane	0.010	ND	ND	ND	ND	ND	ND
,2-Dibromo-3-chloropropane	0.010	ND	ND	ND		ND	ND
2-Dibromoethane (EDB)	0.010	ND	ND	ND	ND	ND	ND
libromomethane	0.010	ND	ND	ND	ND	ND	ND
2- Dichlorobenzene	0,010	ND	ND		ND	ND	ND
,3-Dichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
.4-Dichlorobenzene	0.010	ND ND	ND	ND ND	ND	ND	ND
Dichlorodifluoromethane	0.010	ND	ND		ND	ND	ND
1-Dichloroethane	0.010	0.041	0.176	ND	ND	ND	ND
,2-Dichloroethane	0.010	ND	ND	ND	ND	ND	ND
.1-Dichlorgethene	0.010	1,14	1,54	ND	ND	ND	ND
is-1,2-Dichloroethene	0.010	358*		ND	ND	ND	ND
ans-1,2-Dichloroethene	0.010	9.7	368*	ND	ND	1.97	1.79
2-Dichloropropane	0.010		11.2	ND	ND	ND	ND
3-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
2-Dichloropropane	0.010		ND	ND	ND	ND	ND
1-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
is-1,3-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
ans-1,3-Dichloropropene	0,010	ND	ND	ND	ND	ND	ND
thylbenzene		ND	ND	ND	ND	ND	ND
reon 113	0.010	ND	ND	ND	ND	ND	ND
lexachlorobutadiene	0.010	ND	ND	ND	ND	ND	ND
	0.010	ND	ND	ND	ND	ND	ND
sopropylbenzene -Isopropyltoluene	0.010	ND	ND	ND	ND	ND	ND
	0.010	ND	ND	ND	ND	ND	ND
lethylene chloride	0.010	ND	ND	ND	ND	ND	ND
laphthalene	0.010	ND	ND	<u>:ND</u>	ND	ND	ND
-Propylbenzene	0.010	ND	ND	,ND	ND	ND	ND
tyrene	0.010	NDND	ND	ND ND	ND	ND	ND
,1,1,2-Tetrachloroethane	0.010	ND	ND	ND	ND	ND	ND
,1,2,2-Tetrachloroethane	0.010	ND	ND	ND	ND	ND	ND
etrachloroethylene (PCE)	0.010	ND	1.21	6.37	2.64	1.97	1.84
oluene	0.010	ND	ND	ND	ND	ND	ND
2,3-Trichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
2,4-Trichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
1,1-Trichloroethane	0.010	0.500*	ND	ND	ND	ND	ND
1,2-Trichloroethane	0.010	ND	ND	ND	ND	ND	ND
richtoroethylene (TCE)	0.010	0.858	3.42	1.55	1,49	1.18	1.31
richlorofluoromethane	0.010	ND	ND	ND	ND	ND	ND
2.3-Trichloropropane	0.010	ND	ND	ND	ND	ND	ND
2,4-Trimethylbenzene	0.010	ND	ND	ND	ND	ND	ND
3,5-Trimethylbenzene	0.010	ND	ND	ND	ND	ND	ND
inyl chloride	0.010	1.57	2.21	ND	ND	ND	
ylenes	0.010	ND	ND	ND	ND	ND	ND ND
TBE	0.010	ND	ND	ND	ND	ND	ND ND
thyl-tert-butylether	0.010	ND	ND	ND	ND	ND	ND
i-isopropylether	0.010	ND	ND	ND	ND	ND ND	ND ND
riooproprotitoi					IND		
rt-amylmethylether	0.010	ND					
		ND ND	ND ND	ND ND	ND ND	ND ND	ND ND

NOTES:

VOC - Volatile Organic Compound PCLs - Practical Quantitation Limits ND - Not Detected Above the PQL - No Sample Collected Due to Lack of Flow \* - Dilutions for lhese compounds-P - Purge Volume



VOCs in Soll Vapor	Sample ID Date:	SV15-10 5/0/2013	SV16-5/ 5/8/2013	SV 6-E DUP	-SV46-10	SV47-5	SV17-1
by EPA Method 8250B	POLIMAL		STORUS ST	5/6/2088	5/8//2013	5602013	5/6/201
Benzene	0.010	ND	ND	VOL Concenti			
Bromobenzene	0.010	ND	ND ND	ND	ND	ND	ND
Bromodichloromethane	0.010	ND		ND	ND	ND	ND
Bromoform	0.010	ND ND	ND	ND	ND	ND	ND
n-Butylbenzene	0.010		ND	ND	ND	ND	ND
sec-Butylbenzene		ND	ND	ND	ND	ND	ND
ert-Butylbenzene	0.010	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	0.010	ND	ND	ND	ND	ND	ND
Chlorobenzene	0.010	ND	ND	ND	ND	ND	ND
	0.010	ND	ND	ND	ND	ND	ND
Chloroethane	0.010	ND	ND	ND	ND	ND	ND
Chloroform	0.010	ND	ND	ND	ND	ND	ND
Chloromethane	0.010	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	0.010	ND	ND	ND	ND	ND	ND
-Chiorotoluene	0.010	ND	ND	ND	ND	ND	ND
Dibromochloromethane	0.010	ND	ND	ND	ND	ND	ND
,2-Dibromo-3-chloropropane	0.010	ND	ND	ND	ND	ND	ND
2-Dibromoethane (EDB)	0.010	ND	ND	ND	ND	ND	ND
Dibromomethane	0.010	ND	ND	ND	ND	ND	ND
.2- Dichlerobenzene	0.010	ND	ND	ND	ND	ND	ND ND
,3-Dichlorobenzene	0.010	ND	ND	ND	ND	ND	
,4-Dichlorobenzene	0.010	ND	ND	ND	ND	ND ND	ND
Dichlorodifluoromethane	0.010	ND	ND	ND	ND	ND ND	ND
1-Dichloroethane	0,010	ND	ND	ND	0.442		ND
2-Dichloroethane	0,010	ND	ND	ND		ND	ND
1-Dichloroelhene	0.010	ND	1.88		ND	ND	ND
is-1,2-Dichloroethene	0.010			0.959	1.16	ND	<u>ND</u>
rans-1,2-Dichloroethene	0.010	ND	152*	157*	179*	ND	0.025
2-Dichloropropane		4.37	ND	ND	ND	ND	ND
.3-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
	0.010	ND	ND	ND	ND	ND	ND
2-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
1-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
is-1,3-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
rans-1,3-Dichloropropene	0.010	ND ND	ND	ND	ND	ND	ND
thylbenzene	0.010	ND	ND	ND	ND	ND	ND
reon 113	0.010	ND	1.88	2.02	1.88	ND	0.606
exachlorobutadiene	0,010	ND	ND	ND	ND	ND	ND
sopropylbenzene	0.010	ND	ND	ND	ND	ND	ND
Isopropyltoluene	0.010	ND	ND	ND	ND	ND	ND
Aethylene chloride	0.010	ND	ND	ND	ND	ND	ND
laphthalene	0.010	ND	ND	ND	ND	ND	
-Propylbenzene	0.010	ND	ND	ND	ND		ND
Styrene	0.010	ND	ND	ND		ND	ND
1,1,2-Tetrachloroethane	0,010	ND	ND		ND	ND	ND
.1,2,2-Tetrachloroethane	0.010	ND	ND	ND	ND	ND	ND
etrachloroethylene (PCE)	0.010	0,737	5,86	ND	ND	ND	ND
oluene	0,010			6,11	4.97	ND	0.356
,2,3-Trichlorobenzene		ND	ND	ND	ND	ND	ND
,2,4-Trichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
,1,1-Trichloroethane	0.010	ND	ND	ND	ND	ND	ND
	0.010	ND	ND	ND	ND	ND	ND
,1,2-Trichloroethane	0.010	0.11	ND	ND	ND	ND	ND
richloroethylene (TCE)	0.010	0.536	19.4	20.6	21.6	ND	ND
richlorofluoromethane	0.010	ND	ND	ND	ND	ND	ND
2,3-Trichloropropane	0.010	ND	ND	ND	ND	ND	ND
2,4-Trimethylbenzene	0.010	ND	ND	ND	ND	ND	ND
,3,5-Trimethylbenzene	0.010	ND	ND	ND	ND	ND	ND
inyl chloride	0.010	ND	ND	ND	ND	ND	
ylenes	0.010	ND	ND	ND	ND		ND
ATBE	0.010	ND	ND	ND		ND	ND
thyl-tert-butylether	0.010	ND	ND		ND	ND	ND
anyi-tett-butyletner			the second se	ND	ND	ND	ND
	0.010	MD I					
Di-isopropylether	0.010	ND	ND	ND	ND	ND	ND
	0.010 0.010 0.050	ND ND ND	ND ND ND	ND ND ND	ND ND ND	ND ND ND	

NOTES: VOC - Volatile Organic Compound POLs - Practical Quanitation Limits ND - Not Detected Above the POL - No Sample Callected Due to Lack of Flow - Dilutions for these compounds P - Purge Volume



Op/End/End/OP/End/End/End/End/End/End/End/End/End/End	VOCs in Soll Vapor	Sample ID Date	5/6/2013	SV18-10	SV19-5	SW/19/40	5,929-5	Stys (0- 10
Biozone         0.010         ND	by EPA Method 8260B	and the second se	providence -	0/65/013	and the second se	and the owner where the party of the local division of the local d	6/8/2013	elekton.
Borndenzene         0.010         NO	Benzene	the second s	ND	ND		And in case of the local division of the loc		· 6
internationame         0.010         ND								ND
Stondorm         0.010         NO								ND
BulyBargen         0.010         ND								ND
ope-Butygenzene         0.010         ND								ND
aft-BuyGenzane         0.010         ND								ND
Zabon terrachinida         0.010         ND         ND </td <td></td> <td></td> <td></td> <td></td> <td>· · · · · · · · · · · · · · · · · · ·</td> <td></td> <td></td> <td>ND</td>					· · · · · · · · · · · · · · · · · · ·			ND
District         ND         <								ND
Determinant         0.010         ND							ND	ND
Dataretem         0.010         ND							ND	ND
Discretatione         Do 10         ND							ND	ND
Collisorolusing         Dotion         ND         ND <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.046</td> <td>0.03</td> <td>ND</td>						0.046	0.03	ND
Chorobusen         0.010         ND						ND	ND	ND
Disconsolutionmethane         0.010         ND         N						ND	ND	ND
2.20Erono-3-chiroropopane         0.010         ND         <					ND	ND	ND	ND
12 Disconnentiane (EDB)         0.010         ND         ND <th< td=""><td></td><td></td><td></td><td></td><td>ND</td><td>ND</td><td>ND</td><td>ND</td></th<>					ND	ND	ND	ND
Discontrophane         0 010         ND				ND	ND	ND	ND	ND
Ditromomellane         0.010         ND			the second se		ND	ND	ND	ND
2.2. Dichlorodenzene         0.010         ND					ND	ND		ND
3-Dichlorobenzene         0.010         ND         ND <td></td> <td></td> <td></td> <td>ND</td> <td>ND</td> <td>ND</td> <td>ND</td> <td>ND</td>				ND	ND	ND	ND	ND
4-Dichlorochangene         0.010         ND         ND         ND         ND         ND         ND           1-Dichlorochane         0.010         ND         ND         ND         ND         ND         ND         ND           2-Dichlorochane         0.010         ND         ND         ND         ND         ND         ND         ND           2-Dichlorochane         0.010         ND         ND         ND         ND         ND         ND         ND           1-Dichlorochane         0.010         ND         ND         ND         ND         Alles         Alles <td></td> <td></td> <td></td> <td>ND</td> <td>ND</td> <td>ND</td> <td></td> <td>ND</td>				ND	ND	ND		ND
Vichtorafiluoramethane         0.010         ND				ND	ND			ND
1-Dehlorechane         0.010         ND		0.010	ND	ND	ND			ND
2.2.Dichloroethane         0.010         ND         ND </td <td></td> <td>0.010</td> <td>ND</td> <td>ND</td> <td>ND</td> <td></td> <td></td> <td>ND</td>		0.010	ND	ND	ND			ND
1-Dichloroethene         0.010         ND         A.99         55.           ars-1_2-Dichloroethene         0.010         ND         N	2-Dichloroethane	0.010	ND	ND	ND			ND
is-1,2-bickioroethene         0.010         ND         ND         ND         ND         4.99         5.           ars-1,2-bickioroethene         0.010         ND         <	1-Dichloroethene	0.010	ND	ND				ND
rans-1_2-Dichloroelhene         0.010         ND         ND         ND         ND         0.02         N           2-Dichloropropane         0.010         ND         N	is-1,2-Dichloroethene	0.010	ND					5.26
2.Dichloropropane         0.010         ND         ND <td>rans-1,2-Dichloroethene</td> <td>0.010</td> <td>ND</td> <td>and the second se</td> <td></td> <td></td> <td></td> <td></td>	rans-1,2-Dichloroethene	0.010	ND	and the second se				
3-Dichloropropane         0.810         ND         ND <td>,2-Dichloropropane</td> <td>0.010</td> <td>ND</td> <td></td> <td></td> <td></td> <td></td> <td></td>	,2-Dichloropropane	0.010	ND					
2.2-Dichloropropane         0.010         ND         ND<	,3-Dichloropropane	0.010						
1-Dickloppopene         0,010         ND	2-Dichloropropane							
is.1.3-Dichloropropene         0.010         ND	1-Dichloropropene							ND
ans-1,3-Dichloropropene         0.010         ND         ND <th< td=""><td>is-1.3-Dichloropropene</td><td></td><td></td><td></td><td></td><td></td><td></td><td>ND</td></th<>	is-1.3-Dichloropropene							ND
Ithylenzene         0.010         ND								ND
ireon 113         0.010         ND								ND
texachlorobutadiene         0.010         ND         ND         ND         ND         ND         ND           sopropylbenzene         0.010         ND								ND
sopropylbenzene         0.010         ND         ND <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>ND</td>								ND
Lisopropylloluene         0.010         ND         ND <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>ND</td>								ND
Atthylene chloride         0.010         ND         ND </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>ND</td>								ND
Itel         ND         N								ND
Propybenzene         0.010         ND         ND         ND         ND         ND         ND         ND           styrene         0.010         ND         ND         ND         ND         ND         ND         ND           styrene         0.010         ND         ND         ND         ND         ND         ND         ND           1,1,2.7 Tetrachloroethane         0.010         ND							ND	ND
Atyrene         0.010         ND				and the second s			ND	ND
1,1,2-Tetrachloroethane         0.010         ND         ND <th< td=""><td></td><td></td><td></td><td></td><td></td><td>ND</td><td>ND</td><td>ND</td></th<>						ND	ND	ND
11.2,2-Tetrachloroethane         0.010         ND         ND <t< td=""><td></td><td></td><td></td><td></td><td>ND</td><td>ND</td><td>ND</td><td>ND</td></t<>					ND	ND	ND	ND
etrachloroethylene (PCE)         0.010         0.049         0.104         3.58         2.01         1.56         2.1           oluene         0.010         ND         ND <td< td=""><td></td><td></td><td></td><td>ND</td><td>ND</td><td>ND</td><td>ND</td><td>ND</td></td<>				ND	ND	ND	ND	ND
oluene         0.010         ND				ND	ND	ND	ND	ND
2.3-Trichlorobenzene         0.010         ND				0.104	3.58	2.01	1.56	2.08
2.3-Trichlorobenzene         0.010         ND		0.010	ND	ND	ND	ND	ND	ND
2,2.4-Trichlorobenzene         0.010         ND		0.010	ND	ND	ND	ND	ND	ND
1.1-Trichloroethane         0.010         ND         ND         0,065         0.055         ND         0.0           1.2-Trichloroethane         0.010         ND         <		0.010	ND	ND				ND
1.2-Trichloroethane         0.010         ND         ND<	1.1-Trichloroethane	0.010	ND	ND	0.065			0.042
richloroethylene (T CE)         0.010         ND         0.072         7.75         5.66         1.1         1.1           richlorofuoromethane         0.010         ND		0.010	ND	ND				ND
richlorofluoromethane         0.010         ND         N	richloroethylene (TCE)	0.010		the second se				1.26
2.3-Trichloropropane         0.010         ND	richlorofluoromethane	0.010			the second se			ND
2.4-Trimethylbenzene         0.010         ND	2,3-Trichloropropane							
3.5-Trimethylbenzene         0.010         ND								ND
Introduction         0.010         ND								ND
vienes         0.010         ND         ND         ND         ND         ND         ND           ITBE         0.010         ND         ND         ND         ND         ND         ND         ND           ItBE         0.010         ND								ND
TBE         0.010         ND         ND <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>ND</td></th<>								ND
Ithyl-terl-butylether         0.010         ND         N								ND
ii-isopropylether         0.010         ND         ND <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>ND</td>								ND
art-amyimethylether         0.010         ND         ND<								ND
Dilution Factor         1         1         1         1         1								ND
Ditution Factor 1 1 1 1 1 1								ND
Dilution Factor 1 1 1 1 1 1		0.050					ND	ND
	Dilution Factor		1	1	1	1	1	1

NOTES:

VOC - Volatile Organic Compound POLs - Practicel Quantilation Limits ND - Nol Detected Above the POL - - No Sample Collected Due to Lack of Flow \* - Dilutions for these compounds P - Purge Volume





VOCs In Soll Vapor	Sample (D) Date:	8/21/5 5/10/2018	SV21-10 5/10/2013	SV22-5 5/10/2013	SV22-10 5/(0)2013	SV23 5	51V-36-40
by EPA Method &260B	POL (m/L)	Contexteene.	5110(2015			F/8/2016	0/5/2018
Benzene	0.010	ND	ND	VUC Concent ND	and the second se		
Bromobenzene	0.010	ND	ND	ND	ND	ND	ND
Bromodichloromethane	0.010	ND	ND		ND	ND	ND
Bromoform	0.010	ND		ND	ND	ND	ND
Butylbenzene	0.010		ND	ND	ND	ND	ND
sec-Butylbenzene		ND	ND	ND	ND	ND	ND
ert-Bulylbenzene	0.010	ND	ND	ND	ND	ND	ND
Carbon tetrachionde	0.010	ND	ND	ND	ND	ND	ND
	0.010	ND	ND	ND	ND	ND	ND
Chlorobenzene	0.010	ND	ND	ND	ND	ND	ND
Chloroethane	0.010	ND	ND	ND	ND	ND	ND
Chloroform	0.010	ND	ND	0.03	ND	ND	ND
Chloromethane	0.010	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	0.010	ND	ND	ND	ND	ND	ND
-Chlorotoluene	0.010	ND	ND	ND	ND	ND	ND
Dibromochloromethane	0.010	ND	ND	ND	ND	ND	ND
,2-Dibromo-3-chloropropane	0.010	ND	ND	ND	ND	ND	ND ND
,2-Dibromoethane (EDB)	0.010	ND	ND	ND	ND	ND	
Dibromomethane	0.010	ND	ND	ND	ND		ND
.2- Dichlorobenzene	0.010	ND	ND			ND	ND
.3-Dichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
4-Dichlorobenzene				ND	ND	ND	ND
Dichlorodifluoromethane	0.010	ND	ND	ND	ND	ND	ND
		ND	ND	ND	ND	ND	ND
,1-Dichloroethane	0,010	ND	ND	ND	ND	ND	ND
2-Dichlo oethane	0.010	ND	ND	ND	ND	ND	ND
1-Dichloroethene	0.010	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	0.010	ND	ND	ND	ND	ND	ND
rans-1,2-Dichloroethene	0.010	ND	ND	ND	ND	ND	ND
2-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
1.1-Dichloropropene	0.010	ND	ND	ND	ND	ND	
is-1,3-Dichloropropene	0.010	ND	ND	ND	ND		ND
rans-1,3-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
thylbenzene	0.010	ND	ND			ND	ND
Freon 113	0.010	0,61		ND	ND	ND	ND
lexachlorobutadiene			ND	ND	0.519	0.41	0.294
	0.010	ND	ND	ND	ND	ND	ND
sopropylbenzene	0.010	ND	ND	ND	ND	ND	ND
Isopropyltoluene	0.010	ND	ND	ND	ND	ND	ND
Aethylene chloride	0.010	ND	ND	ND	ND	ND	ND
Vaphthalene	0.010	ND	ND	ND	ND	ND	ND
1-Propylbenzene	0.010	ND	ND	ND	ND	ND	ND
Styrene	0.010	ND	ND	ND	ND	ND	ND
1,1,2-Tetrachloroethane	0.010	ND	ND	ND	ND	ND	ND
1,2,2-Tetrachloroethane	0.010	ND	ND	ND	ND	ND	
etrachloroethylene (PCE)	0.010	0.153	0.853	1.25	ND		ND
oluene	0.010	ND	ND	ND		86,2*	69.9*
,2,3-Trichlorobenzene	0.010	ND	ND		ND	ND	ND
2,4-Trichlorobenzene		the second se		ND	ND	ND	ND
	0.010	ND	ND	ND	ND	ND	ND
1.1.1-Trichloroethane	0.010	ND	ND	ND	ND	ND	ND
,1,2-Trichloroethane	0.010	ND	ND	ND	ND	ND	ND
richloroethylene (TCE)	0.010	ND	ND	ND	ND	0.254	0.154
richlorofluoromethane	0.010	ND	ND	ND	ND	ND	ND
,2,3-Trichloropropane	0.010	ND	ND	ND	ND	ND	ND
2,4-Trimethylbenzene	0.010	ND	ND	ND	ND	ND	ND
,3,5-Trimethylbenzene	0.010	ND	ND	ND	ND	ND	ND
/inyl chloride	0.010	ND	ND	ND	ND	ND	
ylenes	0.010	ND	ND	ND			ND
ATBE	0.010	ND			ND	ND	ND
thyl-tert-butylether	0.010		ND	ND	ND	ND	ND
Di-isopropylether		ND	ND	ND	ND	ND	ND
	0.010	ND	ND	ND	ND	ND	ND
ert-amylmethylether	0.010	ND	ND	ND	ND	ND	ND
ert-Butylalcohol	0.050	ND	ND	ND	ND	ND	ND
Dilution Factor		1	1	1	1	1/5*	

VOC - Volatile Organic Compound

PQLs - Practical Quantitation Limits ND - Not Detected Above the PQL - No Sample Collected Due to Lack of Flow

\* - Dilutions for these compounds P - Purge Volume



VOCs in Soll Vapor	Sample 10. Date	SV24-5 5/6-2016	SV24-10 5/6/2018	SV25-6	8W25-10	SV26.5	
by EPA Method 8260B	INON (LIGHL)	Succepto	are 2013	56012013	11512010	(7/3/2013	STERKON
Benzene	and the second se	····	······································	the second se	rajitoris (µglit.)		
	0.010		•	ND	ND	ND	•
Bromobenzene	0.010	•	•	ND	ND	ND	•
Bromodichloromethane	0.010	•		ND	ND	ND	•
Bromoform	0.010	•		ND	ND	ND	
n-Butylbenzene	0.010	•		ND	ND	ND	
sec-Butylbenzene	0.010		•	ND	ND	ND	
tert-Butylbenzene	0.010		•	ND	ND	ND	
Carbon tetrachloride	0.010			ND	ND	ND	
Chlorobenzene	0.010			ND	ND	ND	
Chloroethane	0.010			ND	ND		
Chloroform	0.010			0.32		ND	· · ·
Chloromethane	0.010				0.03	ND	•
2-Chlorotoluene	0.010			ND	ND	ND	•
4-Chlorotoluene		-	•	ND	ND	ND	
Dibromochloromethane	0.010	•	•	ND	ND	ND	
	0.010	•	•	ND ND	ND	ND	•
2-Dibromo-3-chloropropane	0.010	•		ND	ND	ND	
,2-Dibromoethane (EDB)	0.010	•	•	ND	ND	ND	
Dibromomethane	0,010	•	•	ND	ND	ND	
,2- Dichlorobenzene	0.010		•	ND	ND	ND	
3-Dichlorobenzene	0,010		•	ND	ND	ND	
I 4-Dichlorobenzene	0.010	•		ND	ND	ND	
Dichlorodifluoromethane	0.010		•	ND	ND	ND	
.1-Dichloroethane	0.010			ND	ND		
.2-Dichloroethane	0.010		•	ND	ND	ND	· ·
1,1-Dichloroethene	0.010			0.454		ND	
sis-1,2-Dichloroethene	0.010				ND	ND	
rans-1,2-Dichloroethene	0.010			30.9	38.6*	ND	
.2-Dichloropropane			•	51.3	48.2*	ND	
,3-Dichloropropane	0.010	•	•	ND	ND	ND	•
	0.010	•	•	ND	ND	ND	
2,2-Dichloropropane	0.010	•	•	ND	ND	ND	
1,1-Dichloropropene	0.010	•	•	ND	ND	ND	
sis-1,3-Dichloropropene	0.010			ND	ND	ND	
rans-1,3-Dichloropropene	0.010	•		ND	ND	ND	
thylbenzene	0.010			ND	ND	ND	
Freon 113	0,010			0.843	36,8*	ND	
lexachlorobutadiene	0.010			ND	ND		
sopropylbenzene	0.010			ND		ND	•
I-Isopropyltoluene	0.010		•		ND	ND	•
Aethylene chloride	0.010			ND	ND	ND	•
Vaphthalene	0.010		•	ND	ND	ND	•
			•	ND	ND	ND	
-Propylbenzene	0.010	•	•	ND	ND	ND	•
Styrene	0.010	•	•	ND	ND	ND	
,1,1,2-Tetrachloroethane	0.010	•	•	ND	ND	ND	
1,2,2-Tetrachloroethane	0.010	•	•	ND	ND	ND	
etrachloroethylene (PCE)	0.010	•	•	0.562	4.69	251*	
oluene	0.010		•	ND	ND	ND	
2,3-Trichlorobenzene	0.010	•		ND	ND	ND	
,2,4-Trichlorobenzene	0.010			ND	ND	ND	
,1.1-Trichloroethane	0.010			ND	ND		· ·
1,2-Trichloroethane	0.010		•	ND		ND	· ·
richloroethylene (TCE)	0.010				ND	ND	•
richlorofluoromethane	0.010			1.73	11.2	1.15	
,2,3-Trichloropropane			•	ND	ND	ND	•
	0.010	•	•	ND	ND	ND	•
2.4-Trimethylbenzene	0.010	•	•	ND	ND	ND	
,3,5-Trimethylbenzene	0.010	•	•	ND	ND	ND	
/inyl chloride	0.010	•	•	1.1	2.12	ND	
ylenes	0.010	•	•	ND	ND	ND	
ATBE	0.010	•		ND	ND	ND	
thyl-tert-butylether	0.010			ND	ND		
Di-isopropylether	0.010		•	ND ND		ND	•
ert-amylmethylether	0.010				ND	ND	•
ert-Butylalcohol	0.010			ND	ND	ND	•
Dilution Factor	0,000	•	•	ND	ND	ND	•
				1	1	1/20*	

VOC - Volatile Organic Compound

POLs - Practical Quantitation Limits ND - Not Detected Above the PQL - No Sample Collected Due to Lack of Flow

\* - Dilutions for these compounds P - Purge Volume





VOCs in Soil Vapor	ISLAND.	510 5201 0	SV27-8 5/6/2013	SV20-5 S1602013	\$\$1/201140 \$7(\$1/20143)	SV20.5 5/10/2013	5W29
by EPA Method 8260B	POL (USIL)	and the second sec		VUC Cancent		1 0210/2201(3)	5010/20:
Benzene	0.010	ND		ND	ND	I ND	ND
Bromobenzene	0.010	ND		ND	ND	ND	ND ND
Bromodichloromethane	0.010	ND		ND	ND	ND	ND
Bromoform	0.010	ND		ND	ND	ND	ND
n-Butylbenzene	0,010	ND		ND	ND	ND ND	
sec-Butylbenzene	0.010	ND		ND	ND	ND	ND
ert-Butylbenzene	0.010	ND		ND	ND	ND	ND
Carbon tetrachloride	0.010	ND		ND	ND		ND
Chlorobenzene	0.010	ND		ND	ND	ND ND	ND
Chioroethane	0.010	ND		ND	ND	ND	ND
Chloroform	0.010	ND		ND	ND	ND	ND
Chloromethane	0.010	ND		ND	ND	ND	ND
2-Chlorotoluene	0.010	ND		ND	ND	ND	ND
-Chlorotoluene	0.010	ND		ND	ND	ND ND	ND
Dibromochloromethane	0.010	ND		ND	ND		ND
,2-Dibromo-3-chloropropane	0.010	ND	•	ND	ND	ND	ND
,2-Dibromoethane (EDB)	0.010	ND		ND		ND	ND
Dibromomethane	0.010	ND		ND	ND	ND	ND
.2- Dichlorobenzene	0.010	ND		ND ND	ND ND	ND	ND
"3-Dichlorobenzenė	0.010	ND		ND ND	ND	ND	ND
1.4-Dichlorobenzene	0.010	ND		ND ND	ND	ND	ND
Dichlorodifluoromethane	0.010	ND		ND	ND	ND	ND
1-Dichloroethane	0.010	ND		ND	ND	ND	ND
2-Dichloroethane	0.010	ND		ND ND	ND ND	ND	ND
,1-Dichloroethene	0.010	ND			ND	ND	ND
is-1,2-Dichloroethene	0,010	ND	· ·	ND	ND	ND	ND
rans-1,2-Dichloroethene	0.010	ND		ND	ND	ND	ND
1.2-Dichloropropane	0.010	ND		ND	ND	ND	ND
1.3-Dichloropropane	0.010	ND	•	ND	ND	ND	ND
2.2-Dichloropropane	0,010	ND	•	ND	ND	ND	ND
1,1-Dichloropropene	0,010		•	ND	ND	ND	ND
sis-1,3-Dichloropropene	0.010	ND	•	ND	ND	ND	ND
rans-1,3-Dichloropropene	0.010	ND ND	· · ·	ND	ND	ND	ND
thylbenzene	0.010	ND	•	ND	ND	ND	ND
Freon 113	0.010		· · ·	ND	ND	ND	ND
lexachlorobutadiene		ND	•	ND	ND	53.6*	24.1*
sopropylbenzene	0.010	ND	•	ND	ND	ND	ND
-Isopropyltoluene	0.010	ND		ND	ND	ND	ND
	0.010	ND	•	ND	ND	ND	ND
Methylene chloride	0.010	ND	•	ND	ND	ND	ND
Naphthalene	0.010	ND	•	ND	ND	ND	ND
	0.010	ND	•	ND	ND	ND	ND
Styrene	0.010	ND	•	ND	ND	ND	ND
1.1.1.2-Tetrachloroethane	0.010	ND	•	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	0.010	ND	•	ND	ND	ND	ND
etrachloroethylene (PCE)	0.010	0.205	•	4.12	2.58	104*	115*
oluene	0.010	ND	•	ND	ND	ND	ND
,2,3-Trichlorobenzene	0.010	ND	•	ND	ND	ND	ND
,2,4-Trichlorobenzene	0.010	ND	•	ND	ND	ND	ND
1.1-Trichloroethane	0.010	ND	•	ND	ND	ND	ND
1,1,2-Trichloroethane	0.010	ND	•	ND	ND	ND	ND
richloroethylene (TCE)	0.010	0.018	•	0.19	0.139	0.366	0.237
richlorofluoromethane	0.010	ND	•	ND	ND	ND	ND
,2,3-Trichloropropane	0.010	ND	•	ND	ND	ND	ND
,2,4-Trimethylbenzene	0,010	ND	•	ND	ND	ND	ND
,3.5-Trimethylbenzene	0.010	ND	•	ND .	ND	ND	ND
/inyl chloride	0.010	ND		0,592	ND	0.604	ND
ylenes	0.010	ND		ND	ND	ND	ND
ИТВЕ	0.010	ND	•	ND	ND	ND	ND
thyl-tert-butylether	0.010	ND	•	ND	ND	ND	ND
)i-Isopropylether	0.010	ND	•	ND	ND	ND	ND
ert-amylmethylether	0.010	ND		ND	ND	ND	
ert-Butylalcohol	0.050	ND		ND	ND	ND	ND ND
					170	IND IND	N I

VOC - Volatile Organic Compound

PQLs - Practical Quantitation Limits ND - Not Detected Above the PQL, - - No Sample Collected Due to Lack of Flow

\* - Dilulions for these compounds P - Purge Volume





VOCs in Soll Vapor	Sample IID Pator	SV 30-5 5/8/20 15	SV30-10 5/9/2013	SV01-5	SW-SH- de	SV&1-10 DUP	SWEN2 IS
by EPA Method 8260B	POL (UR L)	CHER AD IS	00/3013	5/10/2013	5/10/2043	5/10/2013	5/8/4014
enzene	0.010	ND	ND	VOC Concent ND		-	
romobenzene	0.010	ND	ND	ND	ND	ND	ND
romodichloromethane	0.010	ND	ND	ND	ND	ND	ND
Bronoform	0.010	ND	ND		ND	ND	ND
n-Butylbenzene	0.010	ND	ND	ND	ND	ND	ND
ec-Butybenzene	0.010	ND	ND	ND	ND	ND	ND
ert-Butylbenzene	0.010	ND	ND ND	ND	ND	ND	ND
Carbon tetrachloride	0.010	ND		ND	ND	ND	ND
Chlorobenzene	0.010	ND	ND ND	ND	ND	ND	ND
Chloroethane	0.010	ND	ND	ND	ND	ND	ND
Chloroform	0.010	ND	ND	ND	ND	ND	ND
Chioromethane	0.010	ND	ND	ND	ND	ND	ND
-Chlorotoluene	0.010	ND	ND	ND	ND	ND	ND
Chlorotoluene	0.010	ND	ND	ND	ND	ND	ND
Dibromochloromethane	0.010		ND	ND	ND	ND	ND
2-Dibromo-3-chloropropane	0.010	ND	ND	ND	ND	ND	ND
,2-Dibromoethane (EDB)	0.010	ND	ND	ND	ND	ND	ND
Dibromomethane		ND	ND	ND	ND	ND	ND
,2- Dichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
.4-Dichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	0.010	ND	ND	ND	ND	ND	ND
	0.010	ND	ND	ND	ND	ND	ND
1-Dichloroethane	0.010	ND	ND	ND	ND	ND	ND
2-Dichloroethane	0.010	ND	ND	ND	ND	ND	ND
1-Dichloroethene	0.010	ND	ND	ND	ND	ND	ND
is-1,2-Dichloroethene	0.010	ND	ND	ND	ND	ND	ND
rans-1,2-Dichloroethene	0.010	ND	ND	ND	ND	ND	ND
2-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
3-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
2.2-Dichtoropropane	0.010	ND	ND	ND	ND	ND	ND
,1-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
is-1,3-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
rans-1,3-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
thylbenzene	0.010	ND	ND	ND	ND	ND	ND
Freon 113	0.010	6.66	8.67	ND	ND	ND	ND
lexachlorobutadiene	0.010	ND	ND	ND	ND	ND	ND
sopropylbenzene	0.010	ND	ND	ND	ND	ND	ND
-Isopropyltoluene	0.010	ND	ND	ND	ND	ND	
Aethylene chloride	0.010	ND	ND	ND	ND	ND	ND
Vaphthalene	0,010	ND	ND	ND	ND		ND
-Propylbenzene	0.010	ND	ND	ND		ND	ND
Styrene	0.010	ND	ND	ND	ND	ND	ND
1,1,2-Tetrachloroethane	0.010	ND	ND	ND	ND ND	ND	ND
1,2,2-Tetrachloroethane	0.010	ND	ND		ND	ND	ND
etrachloroethylene (PCE)	0.010	10,7	11.3	ND	ND	ND	ND
oluene	0.010			ND	0.248	0.852	ND
2.3-Trichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
2,4-Trichlorobenzene		ND	ND	ND	ND	ND	ND
1,1-Trichloroethane	0.010	ND	ND ND	ND	ND	ND	ND
1,2-Trichloroethane	0.010	ND	ND	ND	ND	ND	ND
	0.010	ND	ND	ND	ND	ND	ND
richloroethylene (TCE)	0.010	0.144	0.156	ND	ND	ND	ND
richlorofluoromethane	0.010	ND	ND	ND	ND	ND	ND
2,3-Trichloropropane	0.010	ND	ND	ND	ND	ND	ND
2,4-Trimethylbenzene	0.010	ND	ND	ND	ND	ND	ND
3,5-Trimethylbenzene	0.010	ND	ND	ND	ND	ND	ND
/inyl chloride	0.010	ND	ND	ND	ND	ND	ND
ylenes	0.010	ND	ND	ND	ND	ND	ND
ATBE	0.010	ND	ND	ND	ND	ND	ND
thyl-tert-butylether	0.010	ND	ND	ND	ND	ND	ND
Di-isopropylether	0.010	ND	ND	ND	ND	ND	ND
ert-amylmethylether	0.010	ND	ND	ND	ND	ND	ND ND
	0.040						
ert-Butylalcohol	0.050	ND	ND	ND	ND	ND	ND

VOC - Volatile Organic Compound PQLs - Practical Quantitation Limits

ND - Not Detected Above the PQL

• No Sample Collected Due to Lack of Flow
 \* - Dilutions for these compounds
 P - Purge Volume



DISCUSSION DRAFT

VOCs in Soll Vapor	Sample ID:	SV82-10	SV33-6	SV38-10	943446	SN/64110	SV85-5
by EPA Method 8260B	Pet (milt)	50/2013	5/8/2013	5/08013	5682013	5/3/2013	5/8/2011
Benzene	0.010	ND	ND	VQC Concent	and the second se		
Bromobenzene	0.010	ND	1	ND	ND	ND	ND
Bromodichloromethane	0.010	ND	ND ND	ND	ND	ND	ND
Bromoform	0.010	ND	ND	ND	ND	ND	ND
Butylbenzene	0.010	ND		ND	ND	ND	ND
sec-Butylbenzene	0.010	ND	ND ND	ND	ND	ND	ND
ert-Butylbenzene	0.010	ND		ND	ND	ND	ND
Carbon tetrachloride	0.010	ND	ND	ND	ND	ND	ND
Chlorobenzene	0.010	ND	ND	ND	ND	ND	ND
Chloroethane	0.010	ND ND	ND	ND	ND	ND	ND
Chloroform	0.010		ND	ND	ND	ND	ND
Chloromethane	0.010	ND	ND	ND	ND	ND	ND
-Chlorotoluene	0.010	ND ND	ND	ND	ND	ND	ND
Chlorotoluene		ND	ND	ND	ND	ND	ND
Dibromochloromethane	0.010	ND	ND	ND	ND	ND	ND
,2-Dibromo-3-chloropropane	0.010	ND	ND	ND	ND	ND	ND
,2-Dibromoethane (EDB)	0.010	ND	ND	ND	ND	ND	ND
	0.010	ND	ND	ND	ND	ND	ND
Dibromomethane	0.010	ND	ND	ND	ND	ND	ND
2- Dichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
3-Dichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
4-Dichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	0.010	ND	ND	ND	ND	ND	ND
,1-Dichloroethane	0.010	ND	ND	ND	ND	ND	ND
2-Dichloroethane	0.010	ND	ND	ND	ND	ND	ND
1-Dichloroethene	0.010	ND	ND	ND	ND	ND	ND
is-1,2-Dichloroethene	0.010	ND	ND	ND	ND	ND	ND
rans-1,2-Dichloroethene	0.010	ND	ND	ND	ND	ND	ND
2-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
,3-Dichtoropropane	0.010	ND	ND	ND	ND	ND	ND
,2-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
1-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
is-1,3-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
ans-1,3-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
thylbenzene	0.010	ND	ND	ND	ND	ND	ND
reon 113	0.010	2.29	2.79	0.913	ND	ND	3.33
lexachlorobutadiene	0.010	ND	ND	ND	ND	ND	ND
sopropylbenzene	0.010	ND	ND	ND	ND	ND	ND
Isopropyltoluene	0.010	ND	ND	ND	ND	ND	ND
Aethylene chloride	0.010	ND	ND	ND	ND	ND	ND
laphthalene	0.010	ND	ND	ND	ND	ND	ND ND
-Propylbenzene	0.010	ND	ND	ND	ND	ND	ND
ityrene	0.010	ND	ND	ND	ND	ND	ND
,1,1,2-Tetrachloroethane	0.010	ND	ND	ND	ND	ND	ND ND
,1,2,2-Tetrachloroethane	0.010	ND	ND	ND	ND	ND	ND
etrachloroethylene (PCE)	0.010	0.301	ND	ND	ND	ND	
oluene	0.010	ND	ND	ND	ND	ND	0.863
,2,3-Trichlorobenzene	0.010	ND	ND	ND			ND
2,4-Trichlorobenzene	0.010	ND	ND	ND	ND ND	ND ND	ND
1,1-Trichloroethane	0.010	ND	ND	ND	ND ND	ND	ND
1,2-Trichloroethane	0.010	ND	ND	ND	ND ND	ND ND	ND
richloroethylene (TCE)	0.010	ND	ND	ND		ND	ND
richlorofluoromethane	0.010	ND	ND ND	ND	ND	ND	ND
,2,3-Trichloropropane	0.010	ND ND	ND ND		ND ND	ND	ND
,2,4-Trimethylbenzene	0.010	ND ND		ND	ND	ND ND	ND
3,5-Trimethylbenzene	0.010		ND	ND	ND	ND	ND
inyl chloride		ND ND	ND	ND	ND	ND	ND
vlenes	0.010	ND ND	ND	ND	ND	ND	ND
	0.010	ND ND	ND	ND	ND	ND	ND
ITBE	0.010	ND	ND	ND	ND	ND	ND
thyl-tert-butylether	0.010	ND	ND	ND	ND	ND	ND
i-isopropylether	0,010	ND	ND	ND	ND	ND	ND
ert-amylmethylether	0.010	ND	ND	ND	ND	ND	ND
art Rub/Joleehel	0.050	ND	ND	L'O			
ert-Butylalcohol Dilution Factor	0.000	ND	ND	ND	ND	ND	ND

NOTES:

VOC - Volatile Organic Compound

PQLs - Practical Quantitation Limits ND - Nol Delected Above the PQL

- No Sample Collected Due to Lack of Flow

\* - Difutions for these compounds P - Purge Volume



VOCs In Solt Vapor	Sample 161	SV-6-10 5/8/20-3	SV36-5 5/5/2015	5(8/2015	03278043	SV87-10	SV08-4
by EPA Method 8260B	POL (mult ):	olenko is	0,000,00,00			6/7/2013	£77/2018
Benzene	0,010	ND	ND	VOC Concert ND	ND	No	1 31 - 1977
Bromobenzene	0.010	ND	ND	IND		ND	ND
Bromodichloromethane	0.010	ND	ND	ND	ND	ND	ND
Bromoform	0,010	ND	ND	ND	ND	ND	ND
-Bulylbenzene	0.010	ND	ND		ND	ND	ND
ec-Butylbenzene	0.010	ND	ND	ND	ND	ND	ND
ert-Butylbenzene	0.010	ND		ND	ND	ND	ND
Carbon tetrachloride	0.010	ND	ND ND	ND	ND	ND	ND
Chlorobenzene	0.010	ND		ND	ND	ND	ND
Chloroethane	0.010	ND	ND	ND	ND	ND	ND
Chloroform	0.010	ND	ND ND	ND	ND	ND	ND
Chloromethane	0.010	ND		ND	ND	ND	ND
2-Chlorotoluene	0.010	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	0.010		ND	ND	ND	ND	ND
Dibromochloromethane		ND	ND	ND	ND	ND	ND
,2-Dibromo-3-chloropropane	0.010	ND	ND	ND	ND	ND	ND
,2-Dibromoethane (EDB)	0.010	ND	ND	ND	ND	ND	ND
Dibromomethane	0.010	ND	ND	ND	ND	ND	ND
.2- Dichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
I.3-Dichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
I.4-Dichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	0.010	ND	ND	ND	ND	ND	ND
	0.010	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	0.010	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.010	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	0.010	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	0.010	ND	ND	ND	ND	ND	ND
rans-1,2-Dichloroethene	0,010	ND	ND	ND	ND	ND	ND
,2-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
rans-1,3-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
Ethylbenzene	0.010	ND	ND	ND	ND	ND	ND
Freon 113	0.010	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	0.010	ND	ND	ND	ND	ND	ND
sopropylbenzene	0.010		ND	ND	ND	ND	ND
I-Isopropyltoluene	0.010	ND	ND	ND	ND	ND	ND
Methylene chloride	0.010	ND	ND	ND	ND	ND	ND
Naphthalene	0.010	ND	ND	ND	ND	ND	ND
I-Propylbenzene	0.010	ND	ND	ND	ND	ND	ND
Styrene	0.010	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	0.010	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	0.010	ND	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	0.010	ND	ND	ND	2.15	8.91	2.33
Toluene	0.010	ND	ND	ND	ND	ND	ND
2,3-Trichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	0.010	ND	ND	ND	ND	ND	ND
,1,2-Trichloroethane	0.010	ND	ND	ND	ND	ND	ND
richloroethylene (TCE)	0.010	ND	ND	ND	ND	ND	ND
richlorofluoromethane	0.010	ND	ND	ND	ND	ND	ND
,2,3-Trichloropropane	0.010	ND	ND	ND	ND	ND	ND
,2,4-Trimethylbenzene	0.010	ND	ND	ND	ND	ND	ND
3,5-Trimethylbenzene	0.010	ND	ND	ND	ND	ND	ND
/inyl chloride	0.010	ND	ND	ND	ND	ND	
(ylenes	0.010	ND	ND	ND	ND	ND	ND
MTBE	0.010	ND ND	ND	ND			ND
Ethyl-tert-butylether	0.010	ND ND	ND		ND	ND	ND
Di-Isopropylether	0.010	ND	ND	ND	ND	ND	ND
ert-amylmethylether	0.010	ND	ND	ND	ND	ND	ND
ert-Butylalcohol	0.010	ND ND		ND	ND	ND	ND
	0.050	ND	ND	ND	ND	ND	ND

NOTES:

VOC - Volatile Organic Compound

PQLs - Practical Quantitation Limits

ND - Not Detected Above the PQL

• - No Sample Collected Due to Lack of Flow
 \* - Dilutions for these compounds
 P - Purge Volume



VOCs in Soll Vapor	Sample Di Instas	SVSC 8 6/7/20/13	SV32.4	SV69-8	SV40 (	SW40-P	SV45-4
by EPA Method 8260B	PON (LORL):	- BRATERINES	614/2013	497/2013	6 10/20113	6/10/2013	07/201
Benzene	0.010	ND	The second second		rations (point)		
Bromobenzene	0.010		ND	ND	ND	ND	ND
Bromodichloromethane	0.010	ND ND	ND	ND	ND	ND	ND
Bromoform	0.010	ND	ND	ND	ND	ND	ND
n-Butylbenzene	0.010	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	0.010	ND	ND	ND	ND	ND	ND
ert-Butylbenzene	0.010		ND	ND	ND	ND	ND
Carbon tetrachloride	0.010	ND ND	ND	ND	ND	ND	ND
Chlorobenzene	0.010	ND	ND	ND	ND	ND	ND
Chloroethane	0.010	ND ND	ND	ND	ND	ND	ND
Chloroform	0.010		ND	ND	ND	ND	ND
Chloromethane	0.010	ND	ND	ND	ND	ND	ND
2-Chlorotoluene		ND	ND	ND	ND	ND	ND
I-Chlorotoluene	0.010	ND	ND	ND	ND	ND	ND
Dibromochloromethane	0.010	ND	ND	ND	ND	ND	ND
,2-Dibromo-3-chloropropane	0.010	ND	ND	ND	ND	ND	ND
,2-Dibromoethane (EDB)	0.010	ND	ND	ND	ND	ND	ND
Dibromomethane	0.010	ND	ND	ND	ND	ND	ND
,2- Dichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
.3-Dichlorobenzene	0.010	NO	ND	ND	ND	ND	ND
,4-Dichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	0.010	ND	ND	ND	ND	ND	ND
,1-Dichloroethane	0.010	ND	ND	ND	17.1	15.6	ND
.2-Dichloroethane	0.010	ND	ND	ND	0.86	0.319	ND
	0.010	ND	ND	ND	ND	ND	ND
1-Dichloroethene	0.010	ND	ND	ND	4.47	3.94	ND
cis-1,2-Dichloroethene	0.010	ND	0.267	2.73	69.6*	46.7*	74,0*
rans-1,2-Dichloroethene	0.010	ND	ND	ND	ND	ND	ND
,2-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
,3-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
2.2-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
1-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
is-1,3-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
rans-1,3-Dichloropropene	0,010	ND	ND	ND	ND	ND	ND
thylbenzene	0.010	ND	ND	ND	ND	ND	ND
reon 113	0.010	ND	6.65	284*	ND	ND	ND
lexachlorobutadiene.	0.010	ND	ND	ND	ND	ND	ND
sopropylbenzene	0.010	ND	ND	ND	ND	ND	ND
Isopropyltoluene	0.010	ND	ND -	ND	ND	ND	ND
Aethylene chloride	0.010	ND	ND	ND	ND	ND	ND
laphthalene	0.010	ND	ND	ND	ND	ND	ND
-Propylbenzene	0.010	ND	ND	ND	ND	ND	ND
Styrene	0.010	ND	ND	ND	ND	ND	ND
,1,1,2-Tetrachloroethane	0.010	ND	ND	ND	ND	ND	ND
,1,2,2-Tetrachloroethane	0.010	ND	ND	ND	ND	ND	ND
etrachloroethylene (PCE)	0.010	7.49	0.083	1,0.6*	ND	0.293	0.206
oluene	0.010	ND	ND	ND	0.488	1.01	ND
,2,3-Trichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
2,4-Trichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
1,1-Trichloroethane	0.010	ND	ND	ND	ND	ND	ND
1,2-Trichloroethane	0.010	ND	ND	ND	ND	ND	ND
richloroethylene (TCE)	0.010	ND	0,5	13.1	5.46	8.66	0.074
richlorofluoromethane	0.010	ND	ND	ND	ND	ND	0.074
2,3-Trichloropropane	0.010	ND	ND	ND	ND	ND	ND
2,4-Trimethylbenzene	0.010	ND	ND	ND	ND	ND	ND ND
,3,5-Trimethylbenzene	0.010	ND	ND	0.041	ND	ND	
/inyl chloride	0.010	ND	ND	ND	6.78		ND
(ylenes	0,010	ND	ND	ND	0.78 ND	5.73	ND
ИТВЕ	0.010	ND	ND	ND ND		ND	ND
thyl-tert-butylether	0.010	ND	ND	ND	ND	ND	ND
Di-isopropylether	0.010	ND			ND	ND	ND
ert-amylmethylether	0.010	ND	ND	ND	ND	ND	ND
ert-Butylalcohol	0.050	ND	ND	ND	ND	ND	ND
	0.000	NU	ND	ND	ND	ND	ND

VOC - Volatile Organic Compound POLs - Practical Quantitation Limits ND - Not Detected Above the PQL

No Sample Collected Due to Lack of Flow
 Dilutions for these compounds
 P - Purge Volume



VOCs in Soil Vapor	Sample ID-	SV45(8 (5)7/2018)	SV44-10 6/2/2013	SV45.5	SV46-10 6/910/2013	SV46-4	1914/48 1. DE
by EPA Method 8260B	POL HUNDER		L SILLAGUS		trations (µgil.)	10 <sup>11</sup> (0)20113	6/10/2011
Benzene	0.010	ND	ND	ND	And and a state of the second state of the second		
Bromobenzene	0.010	ND	ND		ND	ND	ND
Bromodichloromethane	0.010	ND	ND	ND ND	ND	ND	ND
Bromoform	0.010	ND	ND	ND	ND	ND	ND
n-Butylbenzene	0.010	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	0.010	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	0.010	ND	ND		ND	ND	ND
Carbon tetrachloride	0.010	ND	ND	ND	ND	ND	ND
Chlorobenzene	0.010	ND	ND	ND	ND	ND	ND
Chloroethane	0.010	ND		ND	ND	ND	ND
Chloroform	0.010	ND	ND	ND	ND	ND	ND
Chloromethane	0.010	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	0.010		ND	ND	ND	ND	ND
4-Chiorotoluene		ND	ND	ND	ND	ND	ND
Dibromochloromethane	0.010	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	0.010	ND	ND	ND	ND	ND	ND
	0.010	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	0.010	ND	ND	ND	ND	ND	ND
Dibromomethane	0.010	ND	ND	ND	ND	ND	ND
1,2- Dichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
1.4-Dichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	0.010	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	0.010	0.365	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.010	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	0.010	1.06	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	0.010	329*	88.0*	105*	212*	0,159	0.494
rans-1,2-Dichloroethene	0.010	ND	ND	ND	ND	ND	
1,2-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	0.010	ND	ND	ND	ND		ND
cis-1,3-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
rans-1,3-Dichloropropene	0.010	ND	ND	ND		ND	ND
Ethylbenzene	0.010	ND	ND	ND	ND ND	ND	ND
Freon 113	0.010	ND	ND	ND		ND	ND
lexachlorobutadiene	0.010	ND	ND		ND	5.73	5.91
sopropylbenzene	0.010	ND	ND	ND	ND	ND	ND
4-Isopropyltoluene	0.010	ND	ND	ND	ND	ND	ND
Methylene chloride	0.010	ND		ND	ND	ND	ND
Naphthalene	0.010		ND	ND	ND	ND	ND
-Propylbenzene	0.010	ND	ND	ND	ND	ND	ND
Styrene		ND	ND	ND	ND	ND	ND
1,1,1.2-Tetrachloroethane	0.010	ND	ND	ND	ND	ND	ND
	0.010	ND	ND	ND	ND	ND	ND
1,1,2.2-Tetrachloroethane	0.010	ND	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	0.010	2.46	5.97	0.055	0.714	24.7	24
foluene	0.010	ND	ND	0.545	0.553	0.384	0.378
,2,3-Trichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
,2,4-Trichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
1.1-Trichloroethane	0.010	ND	ND	ND	ND	0.168	0.18
1,2-Trichloroethane	0.010	ND	ND	ND	ND	ND	ND
richloroethylene (TCE)	0.010	10.3	8.95	10.7	19.1	10.6	11.1
richlorofluoromethane	0.010	ND	ND	ND	ND	ND	ND
2,3-Trichloropropane	0.010	ND	ND	ND	ND	ND	ND
2,4-Trimethylbenzene	0.010	ND	ND	ND	ND	ND	ND ND
,3,5-Trimethylbenzene	0.010	ND	ND	ND	ND	ND	
/inyl chloride	0.010	2.34	ND	23	21.5	ND ND	ND
lylenes	0.010	ND	ND	ND	ND		ND
ATBE	0.010	ND	ND			ND	ND
thyl-tert-butylether	0.010	ND	ND	ND	ND	ND	ND
)i-isopropylether	0.010	ND		ND	ND	ND	ND
art-amylmethylether	0.010		ND	ND	ND	ND	ND
		ND ND	ND ND	ND	ND	ND	ND
ert-Butylalcohol	0.050			ND	ND	ND	

1

VOC - Volatile Organic Compound PQLs - Practical Quantilation Limits

ND - Not Detected Above the PQL

· - No Sample Collected Due to Lack of Flow \* - Dilutions for these compounds P - Purge Volume



**DISCUSSION DRAFT** 

VOCs in Soll Vapor	Sample (D	SV46 8	SV47-	SV47-10	S(V40) 41	SV48 8	SV49-4
by EPA Method 8260B	Date: :::::::::::::::::::::::::::::::::::	6/10/2013	6/8/2013	· (076/2016)	BI 1/20HIS	673/2013	(1)-12.016
Benzene		NIC			ranions (µg/L)		
Bromobenzene	0.010	ND	ND	ND	ND	ND	ND
Bromodichloromethane	0.010	ND	ND	ND	ND	ND	ND
Bromoform	0.010	ND	ND	ND	ND	ND	ND
1-Butylbenzene	0.010	ND	ND	ND	ND	ND	ND
	0.010	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	0.010	ND	ND	ND	ND	ND	ND
ert-Butylbenzene	0.010	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	0.010	ND	ND	ND	ND	ND	ND
Chlorobenzene	0.010	ND	ND	ND	ND	ND	ND
Chloroethane	0.010	ND	ND	ND	ND	ND	ND
Chloroform	0.010	ND	ND	ND	0.034	ND	ND
Chloromethane	0.010	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	0.010	ND	ND	ND	ND	ND	ND
1-Chiorotoluene	0.010	ND	ND	ND	ND	ND	ND
Dibromochloromethane	0.010	ND	ND	ND	ND	ND	ND
2-Dibromo-3-chloropropane	0.010	ND	ND	ND	ND	ND	ND
2-Dibromoethane (EDB)	0.010	ND	ND	ND	ND	ND	ND
Dibromomethane	0.010	ND	ND	ND	ND	ND	ND
2- Dichlorobenzene	0.010	ND	1.04*	0.101	ND	ND	ND
,3-Dichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
4-Dichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	0.010	ND	ND	ND	ND	ND	ND
,1-Dichloroethane	0.010	ND	ND	ND	ND	6.62*	ND
,2-Dichloroethane	0.010	ND	ND	ND	ND	ND	ND
1-Dichloroethene	0.010	ND	0.233	ND	ND	0.063	
is-1,2-Dichloroethene	0.010	0.785	24.9*	22,9*	57.8*		ND
rans-1,2-Dichloroethene	0.010	ND	ND	ND	ND	65.3*	ND
,2-Dichloropropane	0.010	ND	1.79	1.79	36.6*	ND	ND
3-Dichloropropane	0.010	ND	ND	ND		36.5*	ND
,2-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
1-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
is-1,3-Dichloropropene	0.010	ND			ND	ND	ND
ans-1,3-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
thylbenzene	0.010		ND	ND	ND	ND	ND
reon 113	0.010	ND	ND	ND	ND	ND	ND
lexachlorobutadiene	0,010	10.8	0.033	0.268	9.96	14	8.43
sopropylbenzene	0,010	ND	ND	ND	ND	ND	ND
-Isopropyltoluene		ND	ND	ND	ND	ND	ND
	0.010	ND	ND	ND	ND	ND	ND
Aethylene chloride	0.010	ND	ND	ND	ND	ND	ND
laphthalene	0.010	ND	ND	ND	ND	ND	ND
-Propylbenzene	0.010	ND	ND	ND	ND	ND	ND
Styrene	0.010	ND	ND	ND	ND	ND	ND
,1,1,2-Tetrachloroethane	0.010	ND	ND	ND	ND	ND	ND
,1,2,2-Tetrachioroethane	0.010	ND	ND	ND	ND	ND	ND
etrachloroethylene (PCE)	0.010	6.61	11.0*	4.59*	247*	212*	34,7
oluene	0.010	0.168	ND	ND	ND	ND	ND
2,3-Trichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
,2,4-Trichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
1,1-Trichloroethane	0.010	0.294	ND	ND	0.043	ND	0.67
1,2-Trichloroethane	0.010	ND	ND	ND	ND	ND	ND
richloroethylene (TCE)	0.010	10,1	104*	68.7*	127	98.3*	2.74
richlorofluoromethane	0.010	ND	ND	ND	ND	ND	
2,3-Trichloropropane	0.010	ND	ND	ND	ND ND		ND
2,4-Trimethylbenzene	0.010	ND	ND	ND	ND ND	ND	ND
3,5-Trimethylbenzene	0.010	ND	ND	ND		ND	ND
inyl chloride	0.010	ND	ND		ND ND	ND	ND
ylenes	0.010			ND	ND	ND	ND
ITBE	0.010	ND	ND ND	ND	ND	ND	ND
thyl-tert-butylether		ND	ND	ND	ND	ND	ND
	0.010	ND	ND	ND	ND	ND	ND
li-isopropylether	0,010	ND	ND	ND	ND	ND	ND
art-amylmethylether	0.010	ND	ND	ND	ND	ND	ND
ert-Butylalcohol	0.050	ND	ND	ND	ND	ND	ND
Dilution Factor		1	1/10*	1/10*	1/20*	1/20*	1

NOTES:

VOC - Volatile Organic Compound

PQLs - Practical Quantitation Limits ND - Nol Detected Above the PQL

- No Sample Collected Due to Lack of Flow

\* - Dilutions for these compounds P - Purge Volume



VOCs In Soil Vapor	Sample ID: Date:	SV49(6) 5/3/2013	SV60-4 6/7/2013	S (250) 8 (6/7/2013)	SV51-4	5V51-4 bai	SV61-8
by EPA Method 8260B	Tatele (HULE)	Contraction	0000015	Statistics of the local division of the loca	6)72620313	6/7/2015	5-7420-13
Benzene	0.010	ND	ND	ND	trations (Paril)	ND	NIC .
romobenzene	0,010	ND	ND	ND	ND	ND	ND
romodichloromethane	0.010	ND	ND	ND	ND	ND	ND
Bromoform	0.010	ND	ND	ND	ND	ND	ND
-Butylbenzene	0.010	ND	ND	ND ND	ND		ND
ec-Butylbenzene	0.010	ND	ND	IND IND	ND	ND	ND
ert-Butylbenzene	0.010	ND	ND	IND		ND	ND
Carbon tetrachloride	0.010	ND	ND	ND	ND ND	ND	ND
Chlorobenzene	0,010	ND	ND	ND	1	ND	ND
Chloroethane	0.010	ND	ND	'ND	ND	ND	ND
Chloroform	0.010	ND	ND	ND ND	ND	ND	ND
Chloromethane	0.010	ND	ND		ND	ND	ND
-Chiorotoluene	0.010	ND	ND	ND	ND	ND	ND
-Chlorotoluene	0.010	ND	ND	ND	ND	ND	ND
Dibromochloromethane	0.010	ND	ND	ND	ND	ND	ND
,2-Dibromo-3-chloropropane	0.010	ND	ND	ND	ND	ND	ND
2-Dibromoethane (EDB)	0.010		1	ND	ND	ND	ND
Dibromomethane	0.010	ND ND	ND	ND	ND	ND	ND
,2- Dichlorobenzene	0.010	ND ND	ND	ND	ND	ND	ND
,3-Dichlorobenzene	0.010		ND	ND	ND	ND	ND
,4-Dichlorobenzene	0,010	ND ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	0.010	ND ND	ND	ND	ND	ND	ND
1-Dichloroethane	0.010		ND	ND	ND	ND	ND
.2-Dichloroethane		ND	ND	ND	ND	ND	ND
1-Dichloroethene	0.010	ND	ND	ND	ND	ND	ND
is-1,2-Dichloroethene		ND	ND	ND	ND	ND	ND
ans-1,2-Dichloroethene	0.010	ND	ND	0.293	ND	ND	ND
,2-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
,3-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
2-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
	0.010	ND	ND	ND	ND	ND	ND
1-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
is-1,3-Dichloropropene	0,010	ND	ND	ND	ND	ND	ND
ans-1,3-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
thylbenzene	0.010	ND	ND	ND	ND	ND	ND
reon 113	0.010	ND	3.21	16.6	17,5	16.4	80,7
lexachlorobutadiene	0.010	ND	ND	ND	ND	ND	ND
sopropylbenzene	0.010	ND	ND	ND	ND	ND	ND
-Isopropyltoluene	0.010	ND	ND	ND	ND	ND	ND
Aethylene chloride	0.010	ND	ND	ND	ND	ND	ND
laphthalene	0.010	ND	ND	ND	ND	ND	ND
-Propylbenzene	0.010	ND	ND	ND	ND	ND	ND
styrene	0.010	ND	ND	ND	ND	ND	ND
1,1,2-Tetrachloroethane	0.010	ND	ND	ND	ND	ND	ND
1,2,2-Tetrachloroethane	0.010	ND	ND	ND	ND	ND	ND
etrachloroethylene (PCE)	0.010	35.3	ND	7.57	1.07	1.15	11.2
oluene	0.010	ND	ND	ND	ND	ND	ND
2,3-Trichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
2,4-Trichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
1,1-Trichloroethane	0.010	0.645	ND	0.209	0.99	0.949	ND
1,2-Trichloroethane	0.010	ND	ND	ND	ND	ND	ND
richloroethylene (TCE)	0.010	2.69	ND	0.263	0.112	0.125	3.06
richlorofluoromethane	0.010	ND	ND	ND	ND	ND	<u>3.06</u>
2,3-Trichloropropane	0.010	ND	ND	ND	ND	ND	ND
2,4-Trimethylbenzene	0.010	ND	ND	ND	ND	ND	ND ND
3,5-Trimethylbenzene	0.010	ND	ND	ND	ND	ND	
inyl chloride	0.010	ND	ND	ND	ND		ND
ylenes	0.010	ND	ND	ND ND		ND	ND
TBE	0,010	ND	ND	ND ND	ND	ND	ND
thyl-tert-butylether	0,010	ND			ND	ND	ND
i-isopropylether	0.010	ND ND	ND	ND	ND	ND	ND
rt-amylmethylether	0.010		ND	ND	ND	ND	ND
ert-Butylalcohoi		ND	ND	ND	ND	ND	ND
	0.050	ND	ND	ND	ND	ND	ND
Dilution Factor OTES:		1	1	1	1	1	1/20*

NOTES:

VOC - Volatile Organic Compound

PQLs - Practical Quantitation Limits

ND - Not Detected Above the PQL - No Sample Callected Above the Lack of Flow - Dilutions for these compounds P - Purge Volume





VOCs In Soll Vapor	Sample ID: Date:	SV62-4 677/2013	SV52-8 662(2013	SV53-0 6/10/2013	SVES N	SW60.5	SVEC 11
by EPA Method 8260B	1200 U (Light):	and some	Consolo		(1(0) 19(0)9	0/3/2010	(113)/2016
Benzene	0.010		1	VQG Concent			
Bromobenzene			•	ND	•	ND	ND
Bromodichloromethane	0.010	•	•	ND		ND	ND
Bromoform	0.010	•	•	ND	*)	ND	ND
	0.010	•	•	ND		ND	ND
n-Butylbenzene	0.010	•	•	ND	•	ND	ND
sec-Butylbenzene	0.010	•	•	ND		ND	ND
ert-Butylbenzene	0.010	•	•	ND		ND	ND
Carbon tetrachloride	0.010		•	ND		ND	ND
Chlorobenzene	0.010		•	ND		ND	ND
Chloroethane	0.010		•	ND		ND	ND
Chloroform	0.010		•	ND	•	ND	
Chloromethane	0,010			ND			ND
2-Chlorotoluene	0.010			ND		ND	ND
Chlorotoluene	0.010			ND		ND	ND
Dibromochloromethane	0,010				•	ND	ND
2-Dibromo-3-chloropropane	0.010			ND	•	ND	ND
		•		ND	•	ND	ND
2-Dibromoethane (EDB)	0.010		•	ND	•	ND	ND
Dibromomethane	0.010	•	•	ND		ND	ND
,2- Dichlorobenzene	0.010	•	•	ND	•	1.49*	2.13*
3-Dichlorobenzene	0.010	•	•	ND	•	ND	ND
,4-Dichlorobenzene	0.010		•	ND	•	ND	ND
Dichlorodifluoromethane	0.010		•	ND		ND	ND
,1-Dichloroethane	0.010			ND		ND	7.88
,2-Dichloroethane	0.010	•		ND		ND	
1-Dichloroethene	0.010			ND	•		ND
cis-1,2-Dichloroethene	0.010			11.3		0.533	0.641
rans-1,2-Dichloroethene	0.010					102*	60.6*
,2-Dichloropropane	0.010			ND	•	ND	ND
,3-Dichloropropane	0.010		· · · · · · · · · · · · · · · · · · ·	ND	•	18.2*	17.7*
2,2-Dichloropropane			•	ND	•	ND	ND
	0.010	•	•	ND	•	ND	ND
1-Dichloropropene	0.010	•	•	ND	•	ND	ND
as-1,3-Dichloropropene	0.010	•	•	ND	•	ND	ND
rans-1,3-Dichloropropene	0.010	•		ND		ND	ND
Ethylbenzene	0,010	•	•	ND		ND	ND
Freon 113	0.010	•	•	0.436		95.6*	99,3*
lexachlorobutadiene	0.010			ND		ND	ND
sopropylbenzene	0.010		•	ND		ND	
I-Isopropyltoluene	0.010			ND			ND
Aethylene chloride	0.010			ND		ND	ND
aphthalene	0.010					ND	ND
Propylbenzene	0.010			ND	•	ND	ND
Styrene			•	ND		ND	ND
1,1,2-Tetrachloroethane	0.010	•	•	ND		ND	ND
	0.010	•	•	ND	•	ND	ND
1,2,2-Tetrachloroethane	0.010	•		ŃD ND		ND	ND
etrachloroethylene (PCE)	0.010	•	•	0,548	•	10.3*	8.00*
oluene	0.010	•		0,486	•	ND	ND
,2,3-Trichlorobenzene	0.010		•	ND		ND	ND
2,4-Trichlorobenzene	0.010			ND		ND	ND
,1,1-Trichloroethane	0.010		•	ND		ND	
1,2-Trichloroethane	0.010			ND			ND
richloroethylene (TCE)	0.010	•		10.8		ND 10.4t	ND
richlerofluoromethane	0.010					19.1*	12.2*
,2,3-Trichloropropane	0.010			ND	· · ·	ND	ND
,2,4-Trimethylbenzene			•	ND	•	ND	ND
,3,5-Trimethylbenzene	0.010	· · ·	•	ND	•	ND	ND
	0.010	•	•	ND	•	ND	ND
/inyl chloride	0.010	•	•	ND		0.368	ND
ylenes	0.010	•	•	ŅD		ND	ND
ATBE	0.010		•	ND		ND	ND
thyl-tert-butylether	0.010			ND		ND	ND
)i-isopropylether	0.010			ND			
erl-amylmethylether	0.010			ND .		ND	ND
ert-Butylalcohol	0.050					ND	ND
Dilution Factor	0.000		•	ND	•	ND	ND
IOTES:		•	•	1	•	1/10*	1/10*

NOTES: VOC - Volatile Organic Compound PQLs - Practical Quantilation Limits ND - Not Detected Above the PQL - No Sample Collected Due to Lack of Flow - Dilutions for these compounds P - Purge Volume



by BPA Method 8200B         Outc.         64102033         64702013         602013         622013         622013           Benzene         0.010         ND	D         ND
Jenzene         0.010         ND	D         ND           D         ND
isomobenzene         0.010         ND	D         ND           D         ND
Iromodichioromethane         0.010         ND	D         ND
inamoform         0.010         ND	D         ND
Butybenzene         0.010         ND	D         ND
iec-Butylbenzene         0.010         ND         ND <td>D         ND           D         ND</td>	D         ND
ert-Butybenzene         0.010         ND	D         ND
Carbon tetrachloride         0.010         ND	D         ND
Chlorobenzene         0.010         ND         ND         ND         ND         ND         ND           Ndorobentane         0.010         ND         ND         ND         ND         ND         ND           Ndoroform         0.010         ND         ND         ND         ND         ND         ND           Shloroform         0.010         ND         ND         ND         ND         ND         ND           Shloroform         0.010         ND         ND         ND         ND         ND         ND           Chlorotoluene         0.010         ND         ND         ND         ND         ND         ND           Jibromo-Schloropropane         0.010         ND         ND         ND         ND         ND         ND           2-Dibromoethane (EDB)         0.010         ND	D         ND
Chloroethane         0.010         ND         ND         ND         ND         ND         ND           Chloroform         0.010         ND         ND         ND         ND         ND         ND           Chloroform         0.010         ND         ND         ND         ND         ND         ND           Chlorofulene         0.010         ND         ND         ND         ND         ND           Chlorofulene         0.010         ND         ND         ND         ND         ND           2-Dibromos-thioroprepane         0.010         ND         ND         ND         ND         ND           2-Dibromosthane         0.010         ND         ND         ND         ND         ND           2-Dibromosthane         0.010         ND         ND         ND         ND         ND           2-Dibromosthane         0.010         ND         ND         ND         ND         ND         ND           2-Dichlorobenzene         0.010         ND	D         ND
Chloroform         0.010         ND	D         ND
Chloromethane         O.010         ND	D         ND
-Chiorotoluene         0.010         ND	D         ND
-Chiorotoluene         0.010         ND         ND         ND         ND         ND         ND           2-Dibrono-3-chioropropane         0.010         ND         ND         ND         ND         ND         ND           2-Dibrono-3-chioropropane         0.010         ND         ND         ND         ND         ND         ND           2-Dibrono-3-chioropropane         0.010         ND         ND         ND         ND         ND         ND           2-Dibrono-stance (EDB)         0.010         ND         ND         ND         ND         ND         ND           2-Dichlorobenzene         0.010         ND	D         ND
Dibromochloromethane         0.010         ND	D         ND
2-Dibromo-3-chloropropane         0.010         ND         ND         ND         ND         ND         ND           2-Dibromoethane (EDB)         0.010         ND	D         ND
22-Dibromoethane (EDB)         0.010         ND	D         ND
Ibbromomethane         0.010         ND	D         ND
2- Dichlorobenzene         0.010         ND         ND         ND         ND         ND         ND           3-Dichlorobenzene         0.010         ND         ND         ND         ND         ND           4-Dichlorobenzene         0.010         ND         ND         ND         ND         ND         ND           4-Dichlorobenzene         0.010         ND         ND         ND         ND         ND         ND           1-Dichloroethane         0.010         ND         ND         ND         ND         ND         ND           2-Dichloroethane         0.010         ND         ND         ND         ND         ND         ND           2-Dichloroethene         0.010         ND         ND         ND         ND         ND         ND           2-Dichloroethene         0.010         ND         ND         ND         ND         ND         ND           2-Dichloroethene         0.010         ND         ND         ND         ND         ND         ND           2-Dichloroptopane         0.010         ND         ND         ND         ND         ND         ND           2-Dichloropropane         0.010         ND <td< td=""><td>D         ND           D         ND           D         ND           D         ND           D         ND           D         ND           D         ND</td></td<>	D         ND
3-Dichlorobenzene         0.010         ND         ND         ND         ND         ND         ND           4-Dichlorobenzene         0.010         ND         ND         ND         ND         ND         ND           4-Dichlorobenzene         0.010         ND         ND         ND         ND         ND         ND         ND           1-Dichloroethane         0.010         ND         ND         ND         ND         ND         ND           2-Dichloroethane         0.010         ND         ND         ND         ND         ND         ND           1-Dichloroethene         0.010         ND         1.9         ND         ND         ND         ND           2-Dichloroethene         0.010         ND         ND         ND         ND         ND         ND           3-Dichloroethene         0.010         ND         ND         ND         ND         ND         ND         ND           3-Dichloroptopane         0.010         ND	D ND D ND D ND D ND D ND D ND
4-Dichlorobenzene         0.010         ND         ND <td>D ND D ND D ND D ND</td>	D ND D ND D ND D ND
Inchlorodifluoromethane         0.010         ND         ND <th< td=""><td>D ND D ND D ND</td></th<>	D ND D ND D ND
1-Dichloroethane         0.010         2.2         ND         ND         ND         ND         ND           2-Dichloroethane         0.010         ND	D ND D ND
2-Dichloroethane         0.010         ND         ND <td>D ND</td>	D ND
1-Dichloroethene         0.010         ND         ND <td></td>	
Is-1,2-Dichloroethene         0.010         120*         269*         ND         ND         ND         ND           ans-1,2-Dichloroethene         0.010         ND         ND         ND         ND         ND         ND           ans-1,2-Dichloroethene         0.010         ND         ND         ND         ND         ND         ND         ND           ,2-Dichloropropane         0.010         ND	D ND
ans-1,2-Dichloroethene         0.010         ND	- 1 110
2-Dichloropropane         0.010         ND         ND <td>D 0.034</td>	D 0.034
3-Dichloropropane         0.010         ND         ND <td>D ND</td>	D ND
2-Dichforopropane         0.010         ND         ND <td>D ND</td>	D ND
1-Dichloropropene         0.010         ND         ND <td>D ND</td>	D ND
is-1,3-Dichloropropene         0.010         ND	
ans-1,3-Dichloropropene         0.010         ND         ND <th< td=""><td></td></th<>	
Ind         Ind <td></td>	
ND10         ND         N	
reon 113         0.010         0.793         0.139         3.62         4.1         3.1           lexachlorobutadiene         0.010         ND         ND <td></td>	
sopropylbenzene         0.010         ND	
Isopropyltoluene         0.010         ND         ND         ND         ND         ND           Aethylene chloride         0.010         ND         ND         ND         ND         ND         ND           Aethylene chloride         0.010         ND         ND         ND         ND         ND         ND           Aethylene chloride         0.010         ND         ND         ND         ND         ND         ND           Propylbenzene         0.010         ND         ND         ND         ND         ND         NI           Altrane         0.010         ND         ND         ND         ND         NI           Altrane         0.010         ND         ND         ND         ND         NI           Altrane         0.010         ND         ND         ND         ND         NI	
Isopropylitoluene         0.010         ND         ND         ND         ND         NI           Iethylene chloride         0.010         ND	710
lethylene chloride         0.010         ND         ND         ND         ND         ND         NI           aphthalene         0.010         ND         ND         ND         ND         ND         ND         ND           Propylbenzene         0.010         ND         ND         ND         ND         ND         ND         ND           tyrene         0.010         ND         ND         ND         ND         ND         NI	
Image         0.010         ND         <	110
Propylbenzene         0.010         ND         ND         ND         ND         ND         NI           tyrene         0.010         ND         ND<	
tyrene 0.010 ND ND ND ND ND ND ND ND	
112-Tetrachloroethone 0.040 ND ND	
1,2,2-Tetrachloroethane 0.010 ND ND ND ND ND ND ND	
etrachloroethylene (PCE) 0.010 ND 0.098 0,378 0.431 0.4	
oluene 0.010 0.645 0.09 ND ND ND	
2,3-Trichlorobenzene 0.010 ND ND ND ND ND ND	01002
2,4-Trichlorobenzene 0.010 ND ND ND ND ND ND	
1,1-Trichloroethane 0.010 ND ND ND ND ND ND	
1,2-Trichloroethane 0.010 ND ND ND ND ND	
2.3.Trichloropropage 0.010 ND ND ND ND ND ND	
24.Trimethyleenzone 0.040 ND ND ND ND ND	
35-Trimethylbenzene 0.010 ND ND ND ND ND	
Ind chloride	
Venes 0.010 ND ND ND ND ND	
TPE DOGO NO NO NO NO	
by ter-bublethor 0.000 ND ND ND ND	
Lisopropulation NU NU NU NU NU	
d am/moth/delbor 0.040 tip	
rt-Bublatopol	
Dilution Exchange And	D ND
Dilution Factor 1/100* 1/100* 1 1 1	1

NOTES:

VOC - Volatile Organic Compound PQLs - Practical Quantitation Limits

ND - Noi Delected Above the PQL

- - No Sample Collected Due to Lack of Flow \* - Dilutions for these compounds P - Purge Volume





# TABLE 6 Soil Gas Sample Results for VDCs 12922 Panama Street Los Angeles, California

VOCs In Soll Vapor	Sample 10 Date:	SV5749.6" 6/10/2013	SB55 5' 3/10/2013	SV58-10 6/10/2013	SV6 5	OF HAVE	SV622
by EPA Method 8260B	intel (rente)	GHUNKU 15			6 3/2 13	38/2013	0/3/2015
enzene	0.010	ND	ND	VOC Concent		NIC	
romobenzene	0.010	ND	ND	ND	ND	ND	ND
romodichloromethane	0.010	ND	ND	ND	ND	ND	ND
Bromoform	0.010	ND	ND	IND	ND	ND	ND
Butylbenzene	0.010	ND	ND		ND	ND	ND
ec-Butylbenzene	0.010	ND ND	ND ND	ND ND	ND	ND	ND
ert-Butylbenzene	0.010	ND	ND		ND	ND	ND
Carbon tetrachloride	0.010	ND	ND	ND	ND	ND	ND
Chlorobenzene	0.010	ND	ND	ND	ND	ND	ND
Chloroethane	0.010	ND	ND	ND	ND	ND	ND
Chloroform	0.010	ND	ND	ND	ND	ND	ND
Chloromethane	0.010	ND		ND	ND	ND	ND
2-Chlorotoluene	0.010	ND	ND	ND	ND	ND	ND
-Chlorotoluene	0.010	ND	ND	ND	ND	ND	ND
Dibromochloromethane	0.010	ND	ND	ND	ND	ND	ND
,2-Dibromo-3-chloropropane	0.010	ND	ND	ND	ND	ND	ND
2-Dibromoethane (EDB)	0.010	-	ND	ND	ND	ND	ND
Dibromomethane	0.010	ND	ND	ND	ND	ND	ND
2- Dichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
3-Dichlorobenzene	0,010	ND	ND	ND	ND	ND	ND
.4-Dichlorobenzene		ND ND	ND	ND	ND	ND	ND
Jichlorodifluoromethane	0.010	ND	ND	ND	ND	ND	ND
.1-Dichloroethane	0.010	ND	ND	ND	ND	ND	ND
	0.010	ND	ND	ND	ND	ND	ND
.2-Dichloroethane	0.010	ND	ND	ND	ND	ND	ND
1-Dichloroethene	0.010	ND	ND	ND	ND	ND	ND
is-1,2-Dichloroethene	0.010	ND	ND	ND	ND	ND	ND
rans-1,2-Dichloroethene	0.010	ND	ND	ND	ND	ND	ND
,2-Dichloropropane	0.010	2.97	ND	ND	ND	ND	ND
.3-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	0.010	ND	ND	ND	ND	ND	ND
,1-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
is-1,3-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
rans-1,3-Dichloropropene	0.010	ND	ND	ND	ND	ND	ND
thylbenzene	0.010	ND	ND	ND	ND	ND	ND
reon 113	0.010	ND	0.272	0.466	ND	ND	0.374
lexachlorobutadiene	0.010	ND	ND	ND	ND	ND	ND
sopropylbenzene	0.010	ND	ND	ND	ND	ND	ND
-Isopropyitoluene	0.010	ND	ND	ND	ND	ND	ND
Aethylene chloride	0.010	ND	ND	ND	ND	ND	ND
laphthalene	0.010	ND	ND	ND	ND	ND	ND
-Propylbenzene	0.010	ND	ND	ND	ND	ND	ND
Styrene	0.010	ND	ND	ND	ND	ND	ND
,1,1,2-Tetrachloroethane	0.010	ND	ND	ND	ND	ND	ND
1,2,2-Tetrachloroethane	0.010	ND	ND	ND	ND	ND	ND
etrachloroethylene (PCE)	0.010	1.52	2.12	2.02	3,89	9.78	17.4
oluene	0.010	0.098	0.096	0.117	ND	ND	ND
2,3-Trichlorobenzene	0.010	ND	ND	ND	ND	ND	ND
2.4-Trichlorobenzene	0.010	ND	ND	ND	ND	ND	ND ND
1.1-Trichloroethane	0.010	ND	ND	ND	ND	ND	ND
1.2-Trichloroethane	0.010	ND	ND	ND	ND	ND	ND
richloroethylene (TCE)	0.010	0.046	ND	ND	ND	ND	6.43
richlorofluoromethane	0.010	ND	ND	ND	ND	ND	
,2,3-Trichloropropane	0.010	ND	ND	ND	ND	ND	ND
2,4-Trimethylbenzene	0.010	ND	ND	ND	ND		ND
3,5-Trimethylbenzene	0.010	ND	ND	ND		ND ND	ND
inyl chloride	0.010	ND	ND	ND	ND ND	ND	ND
ylenes	0.010	ND	ND ND		ND ND	ND	ND
ITBE	0.010	ND		ND ND	ND	ND	ND
thyl-tert-butylether	0.010		ND	ND	ND	ND	ND
Di-isopropylether		ND	ND	ND	ND	ND	ND
ansopropyleaner	0.010	ND	ND	ND	ND	ND	ND
ert-Butylalcohol	0.010	ND	ND	ND	ND	ND	ND
a cibutyidiou (U	0.050	ND	ND	ND	ND	ND	ND
Dilution Factor		1	1	1	1	110	

NOTES:

VOC - Volatile Organic Compound

PQLs - Practical Quantitation Limits

ND - Nol Detected Above the PQL

- No Sample Collected Due to Lack of Flow

\* - Dilutions for these compounds P - Purge Volume







WOCs In Soli Vapor	Sample ID Date:	SV82-10 5/3/2013	SV63-8 6/13/2013	SV6615 0.019 814.0720413	SV63-10	SV67 5	SV67-10
by EPA Method 8260B	P(0) ((0)/())	Constant of the second	1 OF MACOTO	and the second second	6// 1/2016	. 740/2018	7/12018
Benzene	0.010	ND	ND	ND	rations (µg/L)		
Bromobenzene	0.010	ND	ND		•	ND	ND
Bromodichloromethane	0.010	ND	ND	ND	4	ND	ND
Bromoform	0.010	ND	ND	ND	•	ND	ND
n-Butylbenzene	0.010	ND	ND	ND	0	ND	ND
sec-Butylbenzene	0.010	ND	ND	ND	•	ND	ND
ert-Butylbenzene	0.010	ND	ND	ND		ND	ND
Carbon tetrachloride	0.010	ND		ND	•	ND	ND
Chlorobenzene	0.010	ND	ND	ND		ND	ND
Chloroethane	0.010	ND	ND	ND	•	ND	ND
Chloroform	0.010	ND	ND	ND	•	ND	ND
Chloromethane	0.010	ND	ND	ND		0.044	0.044
- Chlorotoluene	0.010	ND ND	ND	ND	•	ND	ND
-Chlorotoluene	0.010	ND	ND	ND	•	ND	ND
Dibromochloromethane	0.010	ND	ND	ND	•	ND	ND
2-Dibromo-3-chloropropane			ND	ND	•	ND	ND
,2-Dibromoethane (EDB)	0.010	ND	ND	ND	•	ND	ND
Dibromomethane	0,010	ND	ND	ND		ND	ND
.2- Dichlorobenzene	0.010	ND	ND	ND	•	ND	ND
	0.010	ND	ND	ND	•	ND	ND
,3-Dichlorobenzene	0.010	ND	ND	ND	•	ND	ND
.4-Dichlorobenzene	0.010	ND	ND	ND	•	ND	ND
Dichlorodifluoromethane	0.010	ND	ND	ND	4	ND	ND
1-Dichloroethane	0.010	ND	ND	ND	•	ND	ND
,2-Dichloroethane	0.010	ND	ND	ND		ND	ND
1-Dichloroethene	0.010	ND	ND	ND		0.222	0.425
is-1,2-Dichloroethene	0.010	ND	ND	ND	•	3.98	7.88
rans-1,2-Dichloroethene	0.010	ND	ND .	ND	•	8.57	11.9
,2-Dichloropropane	0.010	ND	ND	ND	•	ND	ND
3-Dichloropropane	0.010	ND	ND	ND	•	ND	ND
2-Dichloropropane	0.010	ND	ND	ND	•	ND	ND
1-Dichloropropene	0.010	ND	ND	ND	•	ND	ND
is-1,3-Dichloropropene	0.010	ND	ND	ND	•	ND	ND
ans-1,3-Dichloropropene	0.010	ND	ND	ND		ND	ND
thylbenzene	0.010	ND	ND	ND		ND	ND
reon 113	0.010	0.326	ND	ND		ND	0,052
fexachlorobutadiene	0.010	ND	ND	ND		ND	ND
sopropylbenzene	0.010	ND	ND	ND		ND	ND
-Isopropyltoluene	0.010	ND	ND	ND		ND	ND
Aethylene chloride	0.010	ND	ND	ND		ND	ND
laphthalene	0.010	ND	ND	ND	•	ND	ND
-Propylbenzene	0.010	ND	ND	ND		ND	ND-
ityrene	0.010	ND	ND	ND		ND	ND
1,1.2-Tetrachloroethane	0.010	ND	ND	ND		ND	ND
,1.2,2-Tetrachloroethane	0.010	ND	ND	ND		ND	ND
etrachloroethylene (PCE)	0.010	13.8	ND	ND		4.18	
oluene	0.010	ND	ND	ND		4.18 ND	5.04 ND
2,3-Trichlorobenzene	0,010	ND	ND	ND			
2,4-Trichlorobenzene	0.010	ND	ND	ND		ND ND	ND
1,1-Trichloroethane	0.010	ND	ND	ND		ND ND	ND ND
1,2-Trichloroethane	0.010	ND	ND	ND			ND
richloroethylene (TCE)	0.010	3.83	ND	ND		ND 10.1	ND
richlorofluoromethane	0.010	ND	ND	ND		10.1	14.2
2,3-Trichloropropane	0.010	ND	ND	ND		ND ND	ND
2,4-Trimethylbenzene	0.010	ND	ND	ND		ND	ND
3,5-Trimethylbenzene	0.010	ND	ND	ND		ND	ND
invi chloride	0.010	ND			•	ND	ND
ylenes	0.010		ND	ND	•	ND	ND
ITBE	0.010	ND ND	ND	ND	•	ND	ND
thyl-tert-butylether		ND ND	ND ND	ND	•	ND	ND
i-isopropylether	0.010	ND ND	ND	ND		ND	ND
rt-amylmethylether	0.010	ND	ND	ND	•	ND	ND
	0.010	ND	ND	ND	•	ND	ND
Dilution Factor	0.050	ND	ND	ND		ND	ND
		1	1	1			

NOTES:

VOC - Volatile Organic Compound

PQLs - Practical Quantitation Limits

ND - Not Delected Above the PQL

• No Sample Collected Due to Lack of Flow
 \* - Dilutions for these compounds
 P - Purge Volume



VOCs in Soll Vapor	Sample ID:	SV67 10 DUP	SV68-5	8V69-6	SW69 (0)
by EPA Method 8260B	Date: Pot (unita):	7/1/20 15	77(2:2045)	771/2019	7/4/2013
Benzene	0.010	ND			
Bromobenzene	0.010	ND	ND	ND	ND
Bromodichloromethane	0.010	ND ND	'ND	ND	ND
Bromoform	0.010	ND	ND	ND	ND
Butybenzene	0.010	ND	ND	ND	ND
ec-Butylbenzene	0.010	ND	ND	ND	ND
ert-Butylbenzene	0.010	ND	ND	ND	ND
Carbon tetrachloride	0.010	ND	ND ND	ND	ND
Chlorobenzene	0.010	ND		ND	ND
Chloroethane	0.010	ND	ND	ND	ND
Chloroform	0.010	ND	ND	ND	ND
Chloromethane	0.010	ND	ND	ND	ND
-Chlorotoluene	0.010		ND	ND	ND
-Chlorotoluene	0.010	ND	ND	ND	ND
bromochloromethane	0.010	ND	IND IND	ND	ND
2-Dibromo-3-chloropropane	0.010	ND ND	ND	ND	ND
,2-Dibromoethane (EDB)			ND	ND	ND
bromomethane	0.010	ND	ND	ND	ND
2- Dichlorobenzene	0.010	ND	ND	ND	ND
,3-Dichlorobenzene	0.010	ND	ND	ND	ND
4-Dichiorobenzene	0.010	ND	ND	ND	ND
ichlorodifluoromethane		ND	ND	ND	ND
1-Dichloroethane	0.010	ND	ND	ND	ND
,2-Dichloroethane	0.010	ND	ND	ND	ND
,1-Dichloroethene	0.010	ND	ND	ND	ND
s-1,2-Dichloroethene	0.010	0.294	ND	ND	ND
ans-1,2-Dichloroethene	0.010	6.88	ND	ND	ND
2-Dichloropropane	0.010	9.99	ND	ND	ND
3-Dichloropropane	0.010	ND	ND	ND	ND
,2-Dichloropropane	0.010	ND	ND	ND	ND
	0.010	ND	ND	ND	ND
1-Dichloropropene	0.010	ND	ND	ND	ND
s-1,3-Dichloropropene	0.010	ND	ND	ND	ND
ans-1,3-Dichloropropene	0.010	ND	ND	ND	ND
thylbenzene	0.010	ND	ND	ND	ND
reon 113	0.010	0.024	0.098	ND	ND
exachlorobutadiene	0.010	ND	ND	ND	ND
opropylbenzene	0.010	ND	ND .	ND	ND
Isopropyltoluene	0.010	ND	ND	ND	ND
ethylene chloride	0.010	ND	ND	ND	ND
aphthalene	0.010	ND	ND	ND	ND
Propylbenzene	0.010	ND	ND	ND	ND
tyrene	0.010	ND	ND	ND	ND
1,1,2-Tetrachloroethane	0.010	ND	ND	ND	ND
1,2,2-Tetrachloroethane	0.010	ND	ND	ND	ND
etrachloroethylene (PCE)	0.010	4.29	7.66	22.3	43.6*
oluene	0.010	ND	ND	ND	ND
2,3-Trichlorobenzene	0.010	ND	ND	ND	ND
2,4-Trichlorobenzene	0.010	ND	ND	ND	ND
1,1-Trichloroethane	0.010	0.035	ND	ND	ND
1,2-Trichloroethane	0.010	ND	ND	ND	ND
richloroethylene (TCE)	0.010	12.6	0,145	0.492	1.14
ichlorofluoromethane	0.010	ND	ND	ND	ND
2,3-Trichloropropane	0.010	ND	ND	ND	ND
2,4-Trimethylbenzene	0.010	ND	ND	ND	ND
3,5-Trimethylbenzene	0.010	ND	ND	ND	ND
nyl chloride	0.010	ND	ND	ND	ND
ylenes	0.010	ND	ND	ND	ND
TBE	0.010	ND	ND	ND	ND
thyl-tert-butylether	0.010	ND	ND	ND	ND
i-isopropylether	0.010	ND	ND	ND	ND
rt-amylmethylether	0.010	ND	ND	ND	
rt-Butylalcohol	0.050	ND	ND	ND	ND ND
			110	IND I	NI

NOTES:

VOC - Volatile Organic Compound

PQLs - Practical Quantitation Limits

ND - Nol Detected Above the PQL - No Sample Collected Due to Lack of Flow - Dilutions for these compounds P - Purge Volume





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ALTA

Page 1 of 1

Practical Quantitation Limit
Indicates constituent not detected at or above the PQL
= milligrams per liter

TABLE 7 Water Sample Results for Title 22 Metals 12922 Panama Street Los Angeles, California

# **DISCUSSION DRAFT**

# TABLE 8Water Sample Results for TPH12922 Panama StreetLos Angeles, California

	State Section	TPHcc by EPA Method 8015M in Water					
Sample ID	Sample Date	TPH-GRO (66-C10) (µg/L)	TPH-DRQ (C10-C28) (mg/L)	TPH-ORO (C28+) (mg/L)			
	PQL (mg/kg):	50.0	0.500	0.500			
B1A	4/26/2013	ND	ND	ND			
B3A	4/25/2013	ND	ND	ND			
B7A	4/26/2013	ND	ND	ND			
B24A	4/25/2013	ND	ND	ND			
B25A	4/26/2013	ND	ND	ND			
B26A	4/26/2013	ND	ND	ND			
B28A	4/25/2013	ND	ND	ND			
B36A	4/30/2013	ND	ND	ND			

#### NOTES:

ND = Indicates constituents not detected above the PQL

PQL = Practical Quantitation Limit

TPH-GRO = total petroleum hydrocarbons as gasoline range organics TPH-DRO = total petroleum hydrocarbons as diesel range organics

TPH-ORO = total petroleum hydrocarbons as oil range organics mg/L = milligrams per liter



## TABLE 9 Water Sample Results for VOCs 12922 Panama Street Los Angeles, California

Strength and the state of the s	Sample ID.	<b>8</b> 1A	BJA	87%	324A	3/26/A	826A
VO6. by	Duite	4125/2013	4/26/2013	4/2012013	4/25/2013	4/26/2016	4/26/2013
EPA Method 8260B in Water	POL (ug/L)	ND	-	VOC Concen	The second se		
Benzene	5.00	ND ND	ND	ND	ND	ND	ND
Bromobenzene (Phenyl bromide)	1.00	ND	ND ND	ND ND	ND	ND	ND
Bromochloromethane (Chlorobromomethane)	1.00	ND	ND	ND ND	ND ND	ND	ND
Bromodichloromethane (Dichlorobromomethane)	1.00	ND	ND	ND	ND	ND ND	ND ND
Bromoform (Tribromomethane)	5.00	ND	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	3.00	ND	ND	ND	ND	ND ND	ND ND
2-Butanone (MEK, Methyl ethyl ketone)	5.00	ND	ND	ND	ND	ND	ND
n-Butylbenzene	1.00	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	1.00	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	1.00	ND	ND	ND	ND	ND	ND
Carbon disulfide	1.00	ND	ND	ND	ND	ND	ND
Carbon tetrachloride (Tetrachloromethane)	1.00	ND	ND	ND	ND	ND	ND
Chlorobenzene Chloroethane	1.00	ND	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	3.00	ND	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	5.00	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	1.00	ND	ND	1.05	ND	ND	ND
4-Chlorotoluene (p-Chlorotoluene)	1.00	ND	ND	ND	ND	ND	ND
2-Chlorotoluene (o-Chlorotoluene)	1.00	ND ND	ND ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	5.00	ND ND	ND ND	ND ND	ND ND	ND	ND
Dibromochloromethane	1.00	ND	ND	ND ND	ND ND	ND	ND
1,2-Dibromoethane (EDB, Ethylene dibromide)	1.00	ND	ND	ND	ND ND	ND ND	ND
Dibromomethane	1.00	ND	ND	ND	ND ND	ND ·	ND ND
1,2-Dichlorobenzene (o-Dichlorobenzene)	1.00	ND	ND	203	ND	1.52	ND
1,3-Dichlorobenzene (m-Dichlorobenzene)	1.00	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene (p-Dichlorobenzene)	1.00	ND	ND	2.51	ND	ND	ND
Dichlorodifluoromethane	3.00	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.00	ND	ND	4.52	ND	ND	ND
1,2-Dichloroethane	1.00	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (1,1-Dichloroethylene)	1.00	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.00	ND	ND	47	ND	81	ND
trans-1,2-Dichloroethene	1.00	ND	ND	ND	ND	1.22	ND
1,2-Dichloropropane	1.00	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	1.00	ND	ND	ND	ND	ND	ND
	1.00	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	1.00	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	1.00	ND	ND	ND	ND	ND	ND
Ethylbenzene	1.00	ND ND	ND	ND	ND	ND	ND
Hexachlorobutadiene (1,3-Hexachlorobutadiene)	3.00	ND ND	ND ND	ND	ND	ND	ND
2-Hexanone	5.00	ND	ND	ND ND	ND	ND	ND
sopropylbenzene	1.00	ND	ND		ND ND	ND	ND
p-Isopropyltoluene (4-isopropyltoluene)	1.00	ND	ND ND	ND		ND	ND
MTBE	2.00	ND	ND	ND ND	ND ND	ND	ND
4-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)	5.00	ND	ND	ND ND	ND	ND ND	ND
Methylene chloride (Dichloromethane, DCM)	5.00	ND	ND	ND	ND	ND ND	ND ND
Naphthalene	1.00	ND	ND	ND	ND ND	ND ND	ND
n-Propylbenzene	1.00	ND	ND	ND	ND	ND	ND ND
Styrene	1.00	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.00	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.00	ND	ND	ND	ND	ND	ND
Tetrachloroethene (Tetrachloroethylene)	1.00	ND	ND	24.8	ND	2.61	36.8
Toluene (Methyl benzene)	1.00	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	1.00	ND	ND	ND	ND	ND	ND
,2,4-Trichlorobenzene	1.00	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1.00	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1.00	ND	ND_	ND	ND	ND	ND
Trichloroethene (TCE)	1.00	ND	ND	121	ND	29.4	1.31
Trichlorofluoromethane	1.00	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	1.00	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	1.00	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	1.00	ND	ND	ND	ND	ND	ND
finul appricts	5.00	ND	ND	ND	ND	ND	ND
							IND
Vinyl acetate Vinyl chloride (Chloroethene) o-Xvlene	3.00	ND ND ND	ND ND	ND ND	ND ND	ND ND	ND

NOTES:

VOC = Volatile Organic Compound PQL = Practical Quantitation Limit

ND = Indicated constituents not detected at or above the PQL

µg/L = micrograms per liter



## TABLE 9 Water Sample Results for VOCs 12922 Panama Street Los Angeles, California

Construction of the second	Stampie (ID)	B2BA	18316A	B07A	535A	B39A	640A
VOCs by EPA Method 8260B in Water	D.te.	11/25/2013	4/30/2013	BIRRET MS	6/74/2018	6/9/2043	6)17/14(8113)
Acetone	POL (pp/L)	NID	ND	VÕC Concer	The second se		
Benzene	5.00	ND ND	ND ND	ND	ND	ND	ND
Bromobenzene (Phenyl bromide)	1.00	ND	ND ND	ND ND	ND ND	ND ND	ND
Bromochloromethane (Chlorobromomethane)	1.00	ND	ND	ND	ND	ND	ND ND
Bromodichloromethane (Dichlorobromomethane)	1.00	ND	ND	ND	ND	ND	ND
Bromoform (Tribromomethane)	5.00	ND	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	3.00	ND	ND	ND	ND	ND	ND
2-Butanone (MEK, Methyl ethyl ketone)	5.00	ND	ND	ND	ND	ND	ND
n-Butylbenzene sec-Butylbenzene	1.00	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	1.00	ND	ND	ND	ND	ND	ND
Carbon disulfide	1.00	ND ND	ND ND	ND	ND	ND	ND
Carbon tetrachloride (Tetrachloromethane)	1.00	ND	ND	ND ND	ND ND	ND	ND
Chlorobenzene	1.00	ND	ND	ND	ND ND	ND ND	ND
Chloroethane	3.00	ND	ND	ND	ND	ND	ND ND
2-Chloroethyl vinyl ether	5.00	ND	ND	ND	ND	ND	ND ND
Chloroform (Trichloromethane)	1.00	ND	ND	ND	1.29	ND	ND
Chloromethane (Methyl chloride)	3.00	ND	ND	ND	ND	ND	ND
4-Chlorotoluene (p-Chlorotoluene)	1.00	ND	ND	ND	ND	ND	ND
2-Chlorotoluene (o-Chlorotoluene)	1.00	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP) Dibromochloromethane	5.00	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB, Ethylene dibromide)	1.00	ND ND	ND	ND	ND	ND	ND
Dibromomethane	1.00		ND ND	ND ND	ND ND	ND	ND
1,2-Dichlorobenzene (o-Dichlorobenzene)	1.00	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene (m-Dichlorobenzene)	1.00	ND	ND	ND	ND	ND ND	9.64 ND
1,4-Dichlorobenzene (p-Dichlorobenzene)	1.00	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	3.00	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.00	ND	ND	ND	1.54	ND	1.78
1.2-Dichloroethane	1.00	ND	ND	ND	ND	NĎ	ND
1,1-Dichloroethene (1,1-Dichloroethylene)	1.00	ND	ND	ND	ND	3.52	1.12
cis-1,2-Dichloroethene	1.00	ND	ND	ND	ND	2.12	140
1,2-Dichloropropane	1.00	ND	ND	ND	ND	ND	5.72
1.3-Dichloropropane	1.00	ND ND	ND ND	ND	ND	ND	ND
2,2-Dichloropropane	1.00	ND	ND	ND ND	ND ND	ND	ND
1,1-Dichloropropene	1.00	ND	ND	ND	ND ND	ND ND	ND
cis-1,3-Dichloropropene	1.00	ND	ND	ND	ND	ND	ND ND
trans-1,3-Dichloropropene	1.00	ND	ND	ND	ND	ND	ND
Ethylbenzene	1.00	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene (1,3-Hexachlorobutadiene)	3.00	ND	ND	ND	ND	ND	ND
2-Hexanone	5.00	ND	ND	ND	ND	ND	ND
	1.00	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene (4-Isopropyltoluene) MTBE	1.00	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)	2.00	ND	ND	ND	ND	ND	ND
Methylene chloride (Dichloromethane, DCM)	5.00	ND ND	ND ND	ND	ND	ND	ND
Naphthalene	1.00	ND	ND	ND ND	ND ND	ND	ND
n-Propylbenzene	1.00	ND	ND	ND	ND ND	ND ND	ND
Styrene	1.00	ND	ND	ND ND	ND	ND	ND ND
1,1,1,2-Tetrachloroethane	1.00	ND	ND	ND	ND	ND	ND ND
1,1,2,2-Tetrachloroethane	1.00	ND	ND	ND	ND	ND	ND
Tetrachloroethene (Tetrachloroethylene)	1.00	ND	ND	1.13	120	9.18	4.39
Toluene (Methyl benzene)	1.00	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	1.00	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1.00	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1.00	ND ND	ND	ND	ND	ND	ND
Trichloroethene (TCE)	1.00	ND ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	1.00	ND ND	ND ND	ND ND	1.62	7.29	50.5
1,2,3-Trichloropropane	1.00	ND	ND	ND	ND ND	ND ND	ND
1,2,4-Trimethylbenzene	1.00	ND	ND	ND	ND	ND ND	ND ND
1,3,5-Trimethylbenzene	1.00	ND	ND	ND	ND	ND	ND
Vinyl acetate	5.00	ND	ND	ND	ND	ND	ND
Vinyl chloride (Chloroethene)	3.00	ND	ND	ND	ND	ND	ND
o-Xylene	1.00	ND	ND	ND	ND	ND	ND
m- & p-Xylenes	2.00	ND	ND	ND	ND	ND	ND

NOTES:

VOC = Volatile Organic Compound

PQL = Practical Quantitation Limit

ND = Indicated constituents not detected at or above the PQL

µg/L ⇒ micrograms per liter



#### TABLE 9 Water Sample Results for VOCs 12922 Panarna Street Los Angeles, California

VOCs by	Sample (D) Date:	844/A 8/7/2013	842A	6/6/2013	B48A	BEGA	857A
PA Method 8260B In Water	POR THORAL IS	0171010	0/0/2013	State of the second sec	6/28/2013	66 2013	51742043
Acetone	5.00	ND	ND	ND	ND	ND	ND
Benzene	1.00	ND	ND	ND	ND	ND	ND ND
Bromobenzene (Phenyl bromide)	1.00	ND	ND	ND	ND	ND	ND ND
Bromochloromethane (Chlorobromomethane)	1.00	ND	ND	ND	ND	ND	ND
Bromodichloromethane (Dichlorobromomethane)	1.00	ND	ND	ND	ND	ND	ND
Bromoform (Tribromomethane)	5.00	ND	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	3.00	ND	ND	ND	ND	ND	ND
2-Butanone (MEK, Methyl ethyl ketone) n-Butylbenzene	5.00	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	1.00	ND	ND	ND	ND	ND	ND
ert-Butylbenzene	1.00	ND	ND	ND	ND	ND	ND
Carbon disulfide	1.00	ND ND	ND	ND	ND	ND	ND
Carbon tetrachloride (Tetrachloromethane)	1.00	ND ND	ND ND	ND	ND	ND	ND
Chlorobenzene	1.00	ND	ND ND	ND	ND	ND	ND
Chloroethane	3.00	ND ND	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	5.00	ND	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	1.00	ND	ND	ND ND	ND	ND	ND
Chloromethane (Methyl chloride)	3.00	ND	ND	ND ND	ND	ND	ND
4-Chlorotoluene (p-Chlorotoluene)	1.00	ND	ND	ND	ND ND	ND ND	ND
2-Chlorotoluene (o-Chlorotoluene)	1.00	ND	ND	ND		ND ND	ND ND
1,2-Dibromo-3-chloropropane (DBCP)	5.00	ND	ND	ND	ND	ND ND	ND ND
Dibromochloromethane	1.00	ND	ND	ND	ND	ND ND	ND ND
1,2-Dibromoethane (EDB, Ethylene dibromide)	1.00	ND	ND	ND	ND	ND	ND
Dibromomethane	1.00	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene (o-Dichlorobenzene)	1.00	ND	2.38	4.91	ND	ND	ND
1,3-Dichlorobenzene (m-Dichlorobenzene)	1.00	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene (p-Dichlorobenzene)	1.00	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	3.00	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.00	ND	2.38	2.43	3.37	3.75	ND
1,1-Dichloroethene (1,1-Dichloroethylene)	1.00	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.00	ND	ND	ND	ND	ND	ND
rans-1,2-Dichloroethene	1.00	40.6	19.1	131	22.9	72.9	1.84
I,2-Dichloropropane	1.00	ND ND	ND	1.96	1.27	1.44	ND
1,3-Dichloropropane	1.00	ND	ND ND	ND	ND	ND	ND
2,2-Dichloropropane	1.00	ND	ND ND	ND	ND	ND	ND
1,1-Dichloropropene	1.00	ND ND		ND ND	ND ND	ND	ND
cis-1,3-Dichloropropene	1.00	ND	ND	ND ND	ND ND	ND	ND
rans-1,3-Dichloropropene	1.00	ND	ND	ND	ND	ND	ND
Ethylbenzene	1.00	ND	ND	ND	ND	ND ND	ND
lexachlorobutadiene (1,3-Hexachlorobutadiene)	3.00	ND	ND	ND	ND	ND	ND ND
2-Hexanone	5.00	ND	ND	ND	ND	ND	ND
sopropylbenzene	1.00	ND	ND	ND	ND	ND	ND
o-Isopropyitoluene (4-Isopropyitoluene)	1.00	ND	ND	ND	ND	ND	ND
ИТВЕ	2.00	ND	ND	ND	ND	ND	ND ND
-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)	5.00	ND	ND	ND	ND	ND	ND
Methylene chloride (Dichloromethane, DCM)	5.00	ND	ND	ND	ND	ND	ND
Naphthalene	1.00	ND	ND	ND	ND	ND	ND
h-Propylbenzene	1.00	ND	ND	ND	ND	ND	ND
Styrene	1.00	ND	ND	ND	ND	ND	ND
1.1.2-Tetrachloroethane	1.00	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.00	ND	ND	ND	ND	ND	ND
oluene (Methyl benzene)	1.00	5.38	15.5	2.39	67.5	1.14	1.49
,2,3-Trichlorobenzene	1.00	ND	ND	ND	ND	ND	ND
,2,4-Trichlorobenzene	1.00	ND	ND	ND	ND	ND	ND
.1.1-Trichloroethane	1.00	ND	ND	ND	ND	ND	ND
1,2-Trichloroethane	1.00	ND ND	ND ND	ND	ND	ND	ND
richloroethene (TCE)	1.00	ND 9.42	ND 75.0	ND 2C.2	ND	ND	ND
richlorofluoromethane	1.00	9.42 ND	75.9	26.3	22.6	23.4	4.54
,2,3-Trichloropropane	1.00	ND	ND ND	ND	ND	ND	ND
,2,4-Trimethylbenzene	1.00	ND	ND ND	ND ND	ND	ND	ND
,3,5-Trimethylbenzene	1.00	ND	ND	ND	ND	ND	ND
/inyl acetate	5.00	ND	ND	ND	ND ND	ND	ND
/inyl chloride (Chloroethene)	3.00	ND	ND	ND	ND ND	ND ND	ND
-Xylene	1.00	ND	ND	ND	ND	ND ND	ND
n- & p-Xylenes	1.00						ND

NOTES:

VOC = Volatile Organic Compound

PQL = Practical Quantitation Limit

ND = Indicated constituents not detected at or above the PQL

µg/L = micrograms per liter



## TABLE 9 Water Sample Results for VOCs 12922 Panama Street Los Angeles, California

NOCO	Sample 10.	A GUL	B60A	iBig6A	B70A
VOCs by EPA Method 8260B in Water		9/74/2011	6/4//2013	592892043	(C1281/2018)
Acetone	iP(@)L ((µg//L)); 5,00	ND	VOC Concer ND		115
Benzene	1.00	ND	ND	ND ND	ND ND
Bromobenzene (Phenyl bromide)	1.00	ND	ND	ND	ND ND
Bromochloromethane (Chlorobromomethane)	1.00	ND	ND	ND	ND
Bromodichloromethane (Dichlorobromomethane)	1.00	ND	ND	ND	ND
Bromoform (Tribromomethane)	5.00	ND	ND	ND	ND
Bromomethane (Methyl bromide) 2-Butanone (MEK, Methyl ethyl ketone)	3.00	ND	ND	ND	ND
n-Butylbenzene	5.00	ND	ND	ND	ND
sec-Butylbenzene	1.00	ND	ND	ND	ND
tert-Butylbenzene	1.00	ND ND	ND	ND	ND
Carbon disulfide	1.00	ND	ND ND	ND ND	ND
Carbon tetrachloride (Tetrachloromethane)	1.00	ND	ND	ND	ND ND
Chlorobenzene	1.00	ND	ND	ND	ND
Chloroethane	3.00	ND	ND	ND	ND
2-Chloroethyl vinyl ether	5.00	ND	ND	ND	ND
Chloroform (Trichloromethane)	1.00	1.04	ND	ND	1.64
Chloromethane (Methyl chloride)	3.00	ND	ND	ND	ND
4-Chlorotoluene (p-Chlorotoluene) 2-Chlorotoluene (o-Chlorotoluene)	1.00	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	1.00	ND	ND	ND	ND
Dibromochloromethane	5.00	ND ND	ND ND	ND	ND
1,2-Dibromoethane (EDB, Ethylene dibromide)	1.00	ND ND	ND ND	ND	ND
Dibromomethane	1.00	ND	ND	ND ND	ND ND
1,2-Dichlorobenzene (o-Dichlorobenzene)	1.00	ND	ND	ND	ND ND
1,3-Dichlorobenzene (m-Dichlorobenzene)	1.00	ND	ND	ND	ND
1.4-Dichlorobenzene (p-Dichlorobenzene)	1.00	ND	ND	ND	ND
Dichlorodifluoromethane	3.00	ND	ND	ND	ND
1.1-Dichloroethane	1.00	5.59	ND	ND	ND
1,2-Dichloroethane	1.00	ND	ND	ND	ND
1,1-Dichloroethene (1,1-Dichloroethylene) cis-1,2-Dichloroethene	1.00	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.00	ND	ND	ND	ND
1,2-Dichloropropane	1.00	ND	ND	ND	ND
1,3-Dichloropropane	1.00	ND ND	ND ND	ND	ND
2,2-Dichloropropane	1.00	ND ND	ND ND	ND	ND
1,1-Dichloropropene	1.00	ND	ND	ND ND	ND ND
cis-1,3-Dichloropropene	1.00	ND	ND	ND	ND ND
trans-1.3-Dichloropropene	1.00	ND	ND	ND	ND
Ethylbenzene	1.00	ND	ND	ND	ND
Hexachlorobutadiene (1,3-Hexachlorobutadiene)	3.00	ND	ND	ND	ND
2-Hexanone	5.00	ND	ND	ND	ND
Isopropylbenzene	1.00	ND	ND	ND	ND
p-Isopropyltoluene (4-Isopropyltoluene) MTBE	1.00	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)	2.00	ND	ND	ND	ND
Methylene chloride (Dichloromethane, DCM)	5.00	ND ND	ND	ND	ND
Naphthalene	1.00	ND	ND ND	ND ND	ND
n-Propylbenzene	1.00	ND	ND	ND	ND ND
Styrene	1.00	ND	ND	ND	
1,1,1,2-Tetrachloroethane	1.00	ND	ND	ND	ND ND
1,1,2,2-Tetrachloroethane	1.00	ND	ND	ND	ND
Tetrachloroethene (Tetrachloroethylene)	1.00	26.6	13.8	ND	6.63
Toluene (Methyl benzene)	1.00	ND	ND	ND	ND
1.2,3-Trichlorobenzene	1.00	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1.00	ND	ND	ND	ND
1,1,2-Trichloroethane	1.00	ND	ND	ND	ND
Trichloroethene (TCE)	1.00	ND	ND	ND	ND
Trichlorofluoromethane	1.00	1.05 ND	ND	3.15	ND
1,2,3-Trichloropropane	1.00	ND	ND ND	ND ND	ND
1,2,4-Trimethylbenzene	1.00	ND	ND ND	ND ND	ND ND
1,3,5-Trimethylbenzene	1.00	ND	ND	ND	ND
Vinyl acetate	5.00	ND	ND	ND	ND
Vinyl chloride (Chloroethene)	3.00	ND	ND	ND	ND
o-Xylene	1.00	ND	ND	ND	ND
m- & p-Xylenes	2.00	ND	ND	ND	ND

NOTES:

VOC = Volatile Organic Compound PQL = Practical Quantitation Limit

ND = Indicated constituents not detected at or above the PQL

µg/L = micrograms per liter



#### Table 10 Summary of Maximum VOC Concentrations and Cleanup Goals 12922 Panama Street, Los Angeles, California

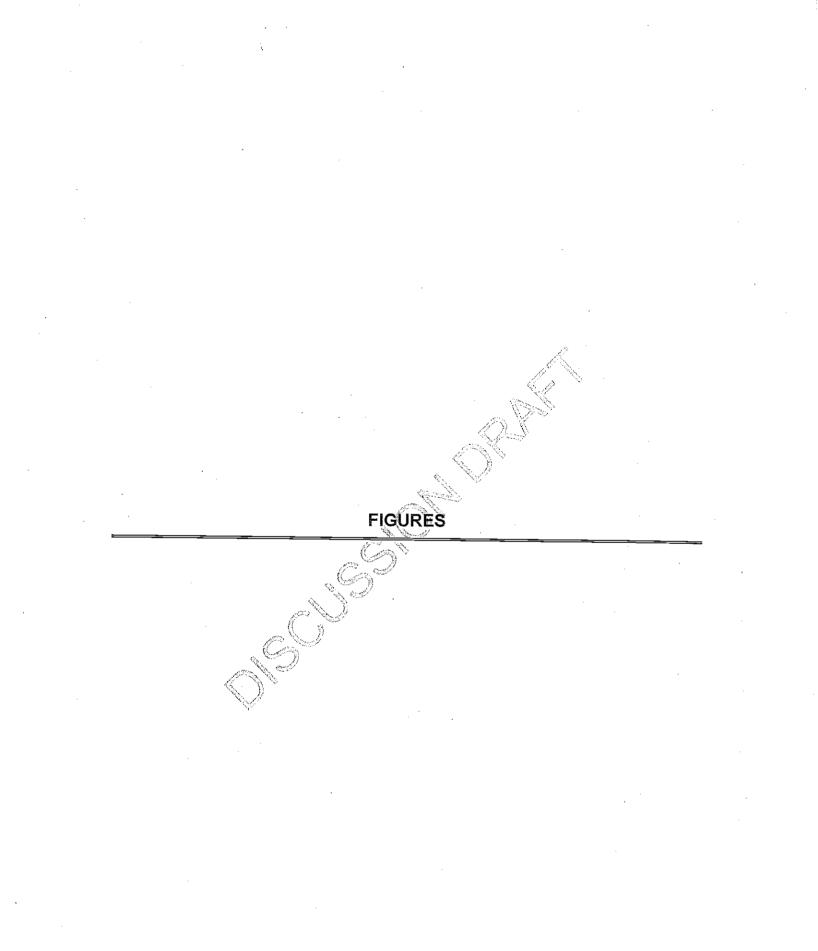
COC	Minimum Detected Concentration (V9/K9)	Maximum Detected Concentration at 2.5 feet hgs (µg/kg)	Gleanup Goal at 2.5 feet bgs fuolkol	Maximum Detecting Concentration at 5 feet bgs (µg/kg)	Cleanup Goal at 5 feet bgs (µg/kg)	Maximum Detector Concentration at 10 feet logs (ugiko)	Cleanup Goal at 10 feet bgs (ug/kg)	Rationate
Benzene	ND <2.0	6.98	6.1	ND <40	5.9	ND <2.0	4.0	AF Method (RWQCB, 1996)
Tetrachloroethene (PCE)	ND <10.0	40,600	30.5	10,500	29.5	324	20.0	AF Method (RWQCB, 1996)
Trichloroethene (TCE)	ND <10.0	452	30.5	31.4	29.5	ND <10.0	20.0	AF Method (RWQCB, 1996)
cis-1,2- dichloroethene (DCE)	ND <10.0	4,190	36.6	218	35.4	46.2	24.0	AF Method (RWQCB, 1996)
trans-1,2- dichloroethene	ND <10.0	70.0	59.0	ND <200	59.0	ND <10.0	40.0	AF Method (RWQC8, 1996)
1.1-dichloroethane (1,1-DCA)	ND <10.0	59.2	30.5	ND <200	29.5	ND <10.0	20.0	AF Method (RWQCB, 1996)
1,1-dichloroethene (1,1-DCE)	ND <10.0	ND <500	36.6	12.9	35.4	ND <10.0	24.0	AF Method (RWQCB. 1996)
1,2- dichlorobenzene	ND <10.0	120	3,660	107	3,540	ND <10.0	2,400	AF Method (RWQCB, 1996)

NOTES:

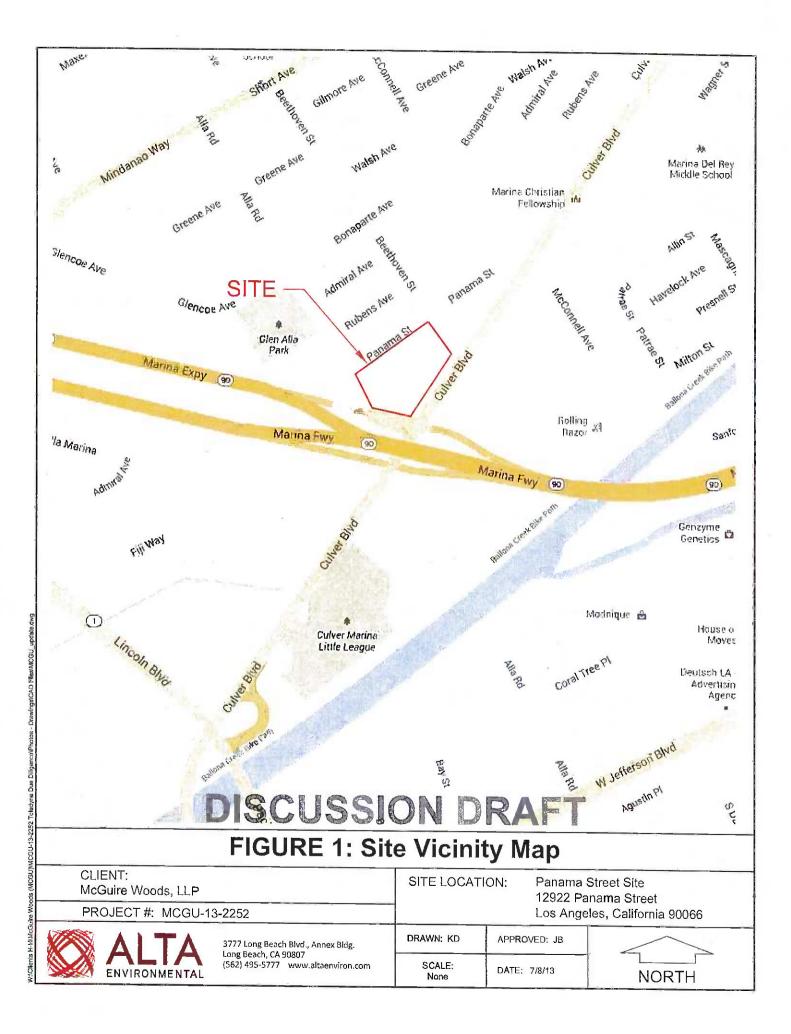
Cleanup goals based on use of the Attenuation Factor (AF) Method, using Table 5-1 of 1996 RWQCB Guidance Document

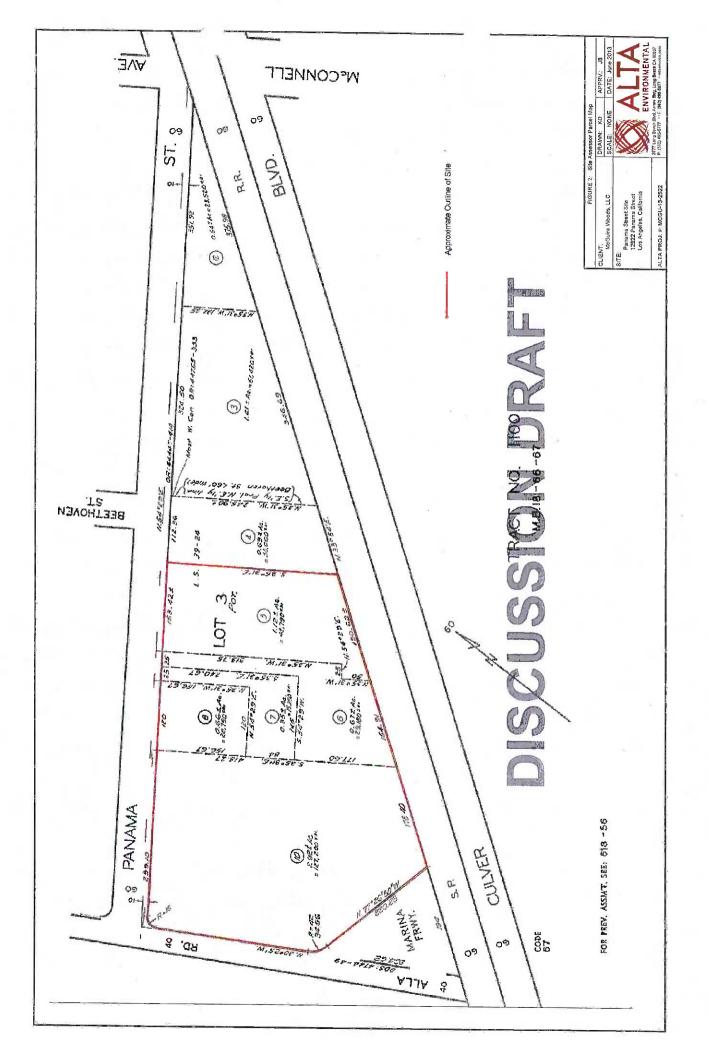
COC = Chemical of Concern µg/kg = micrograms per kilogram

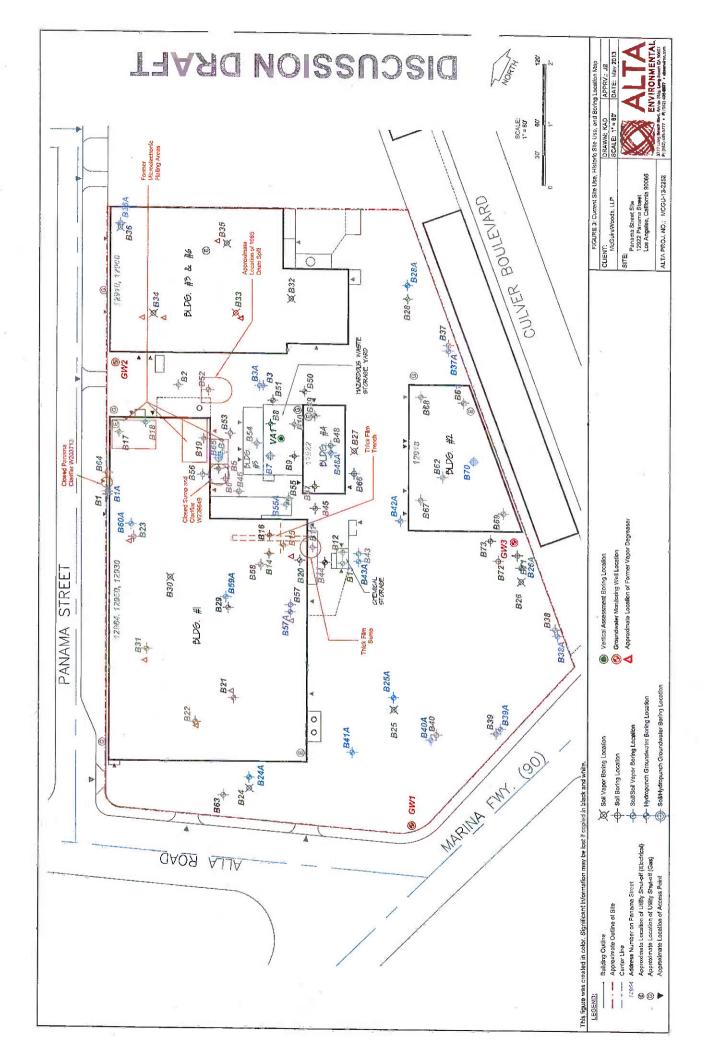


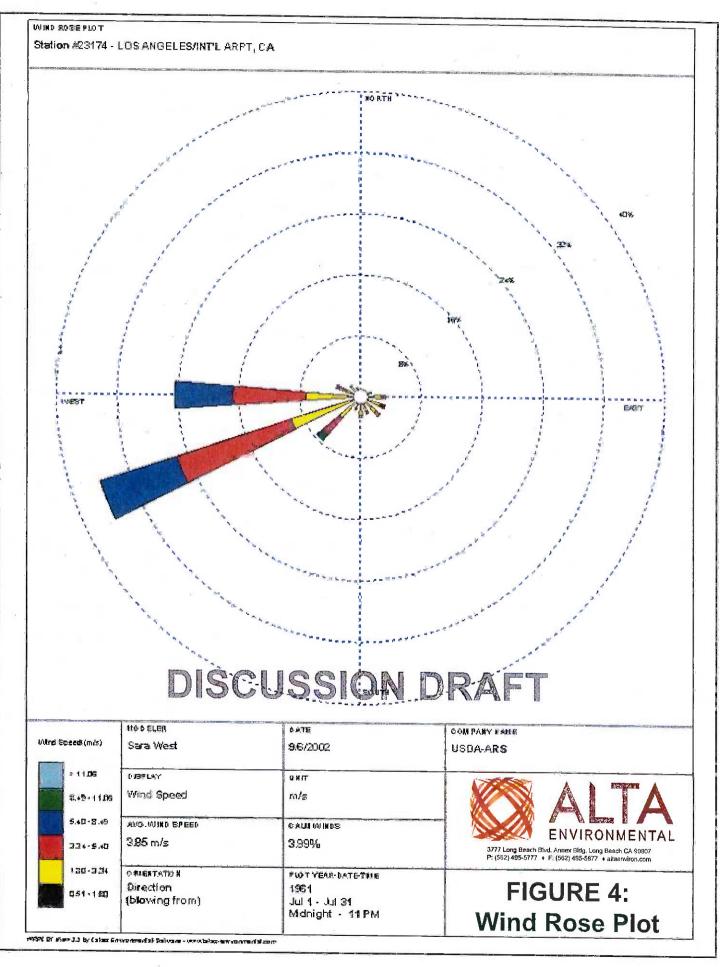


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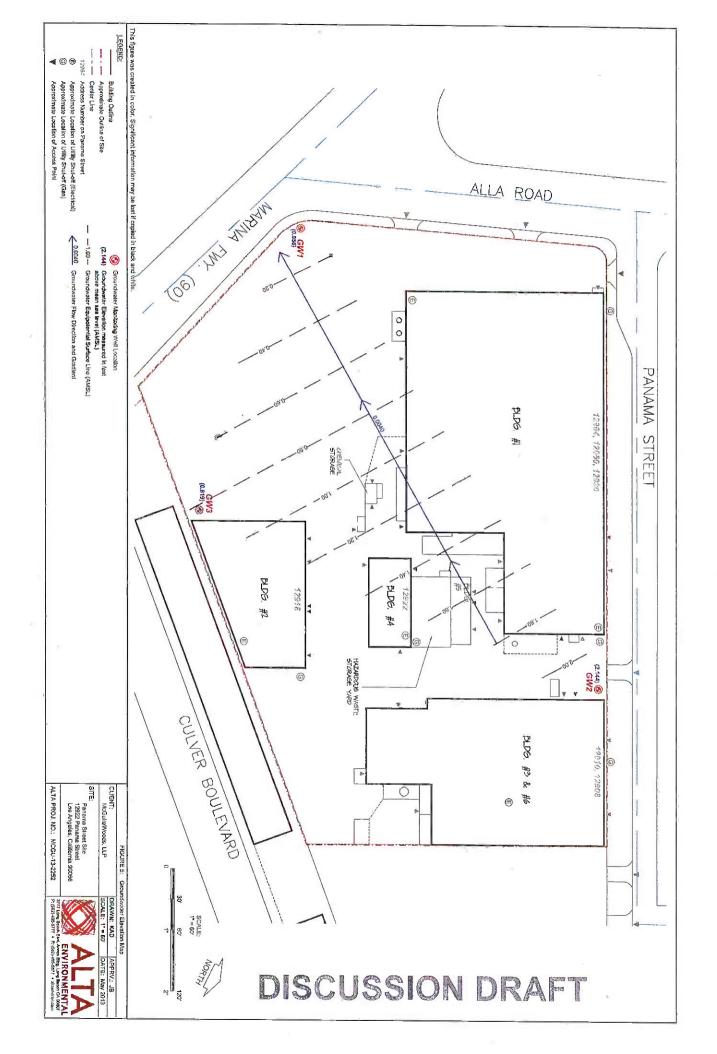


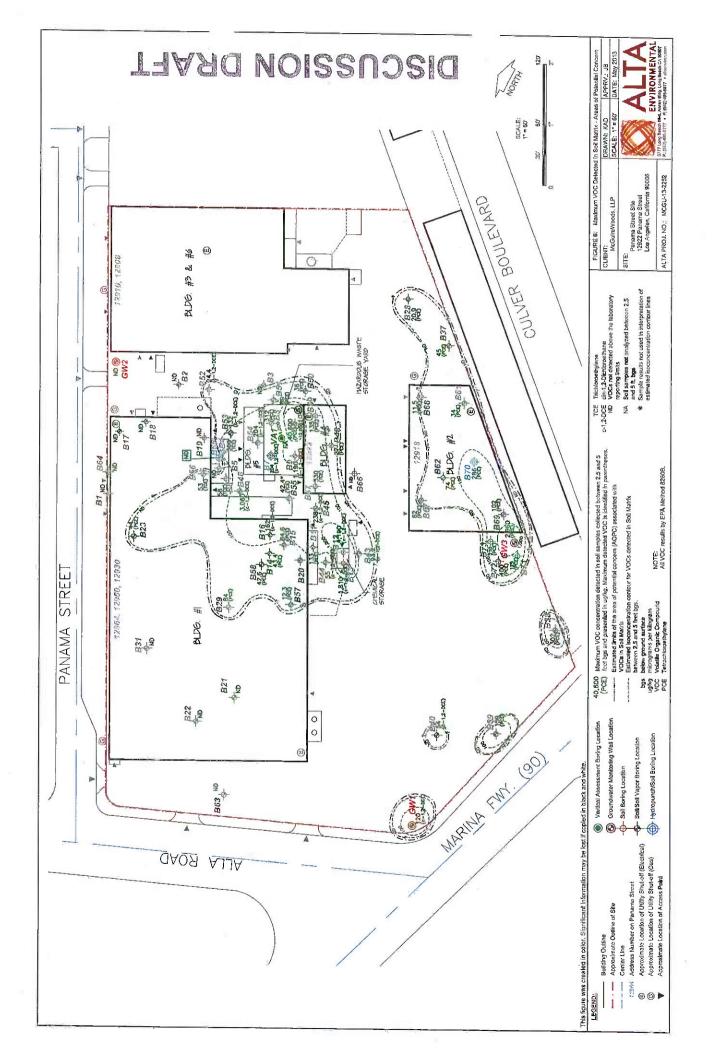


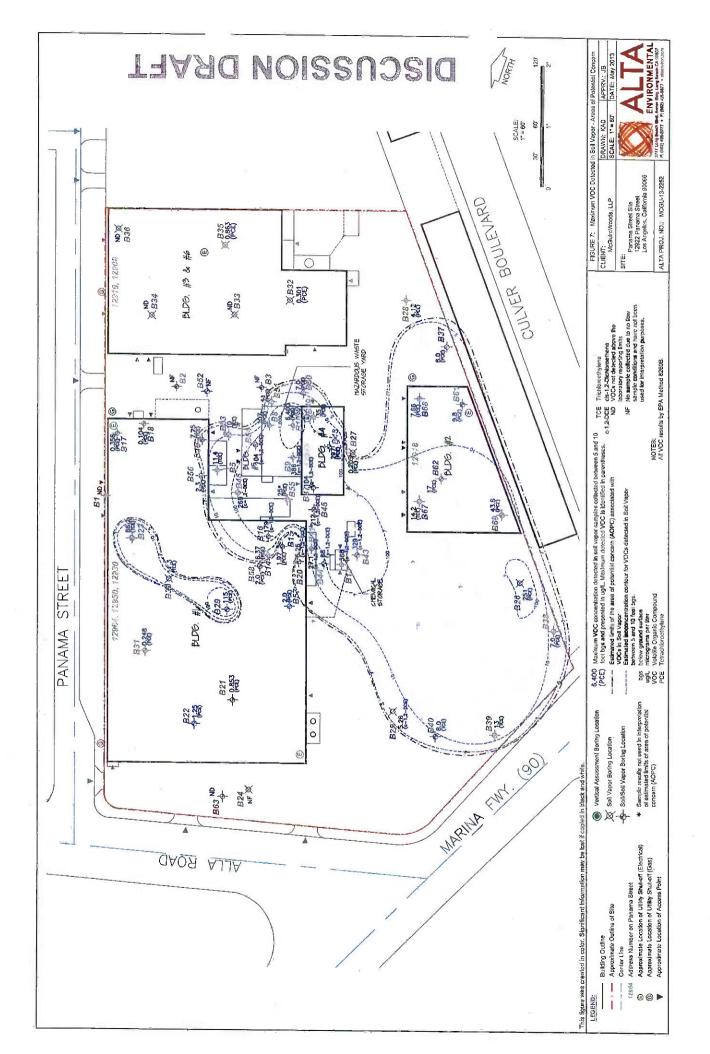


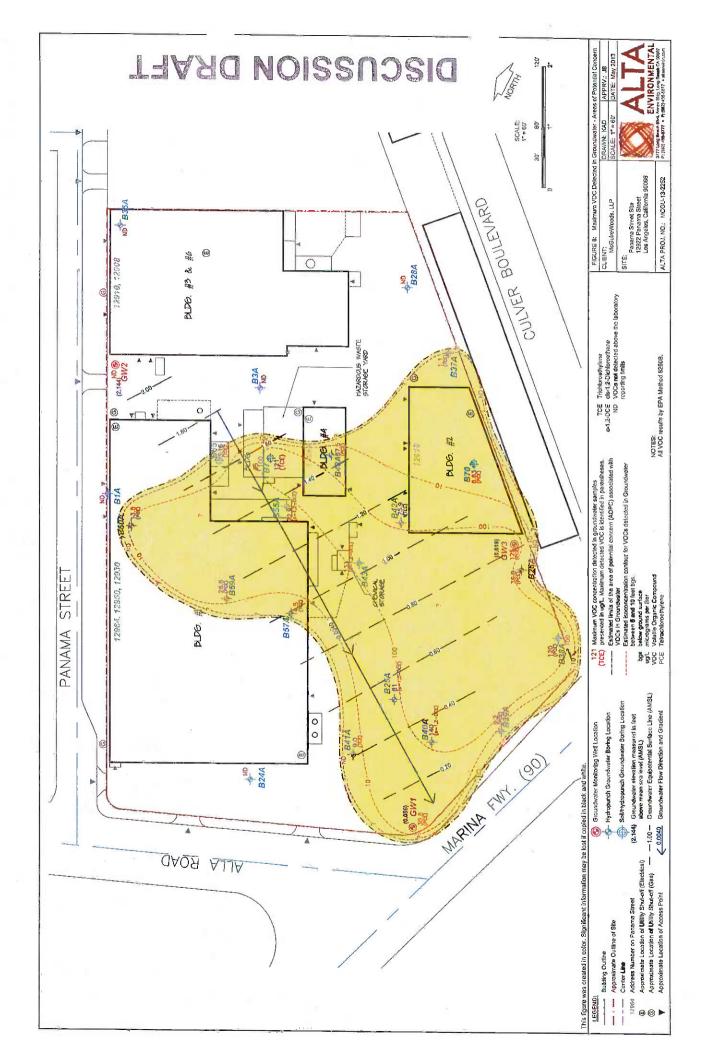


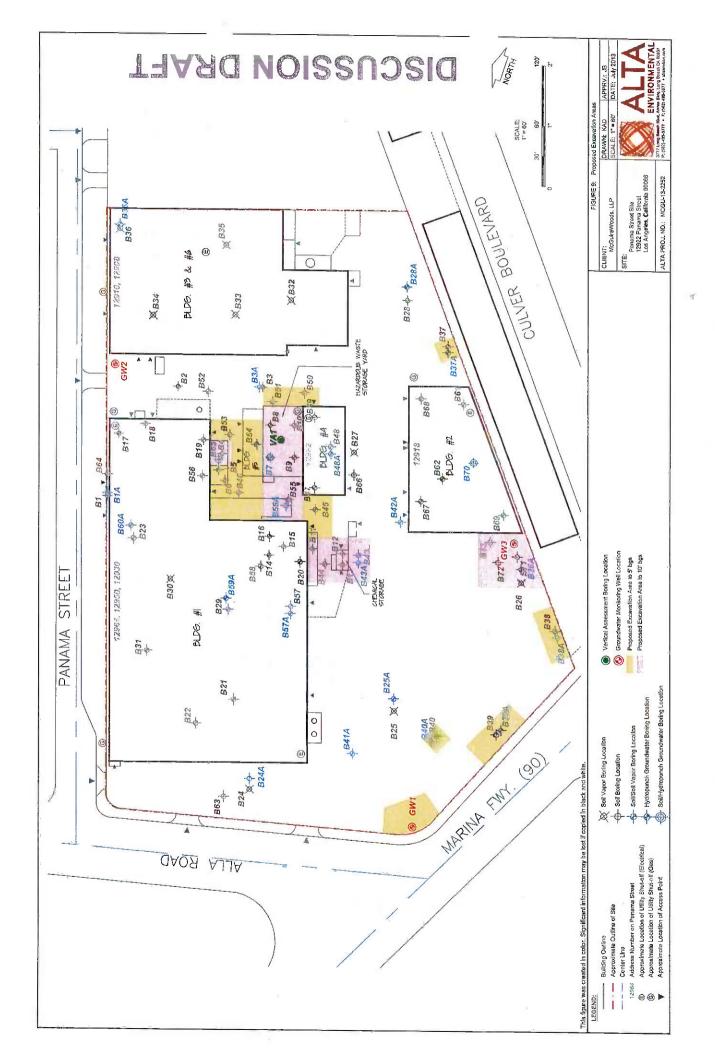
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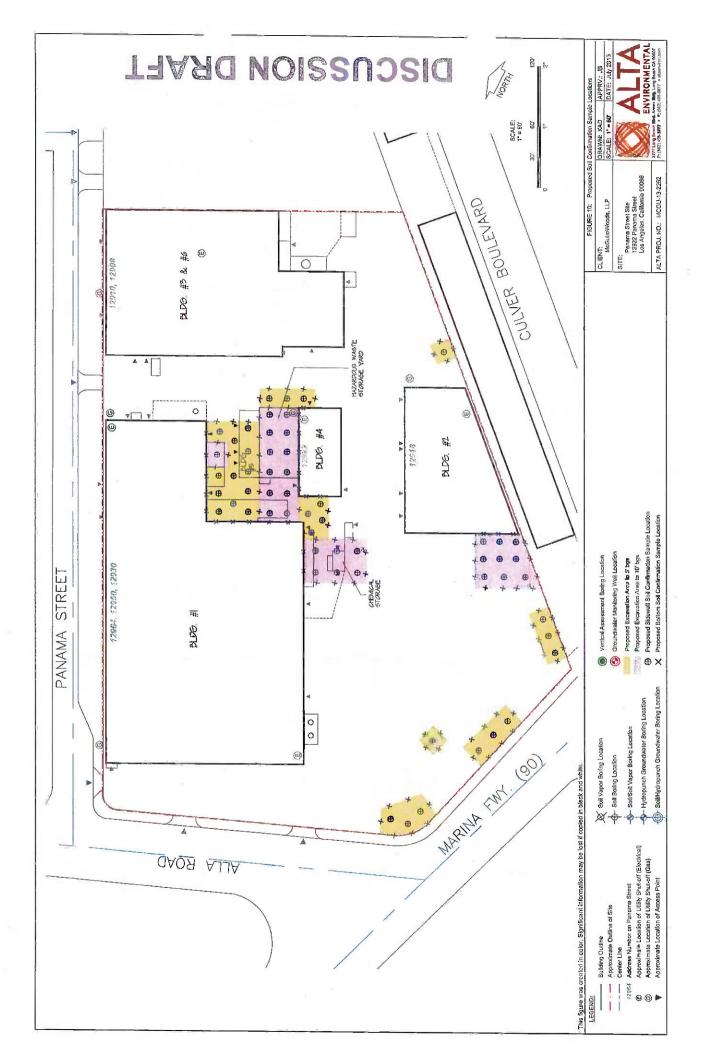












## APPENDIX A

## Health and Safety Plan (HASP)

Alta Environmental MCGU-13-2252 July 10, 2013



## HEALTH & SAFETY PLAN FOR SITE CHARACTERIZATION

12908-12964 Panama Street Los Angeles, California

Prepared for

Mr. Dana Palmer McGuire Woods, LLP 1800 Century Park East, 8<sup>th</sup> Floor Los Angeles, California 90067

MCGU-13-6182 HASP July 8, 2013

Alta Environmental 3777 Long Beach Boulevard, Annex Building Long Beach CA 90807 United States of America

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Site Layout

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## 1 APPLICABLE STANDARDS AND GOALS

## 1.1 Administration Information

Site Location:	12908-12964 Panama Street, Los Angeles, CA
Project Manager:	Mike Cassidy
Health and Safety Manager:	Jon Barkman
Field Team Leader:	Jon Barkman
Site Safety Officer:	Reld Shigeno

### 1.2 General

This Health and Safety Plan (HASP) has been prepared for the Remedial Activities (RA) to be performed at 12908-12964 Panama Street, in Los Angeles, California (Site) [Figure 1, Appendix B]. This HASP specifies the procedures and protective measures that will be employed to ensure the health and safety of the individuals conducting the environmental sampling at the Site. The Site-specific information and procedures contained herein include an overview of Site hazards, chemicals of concern, action levels, initial levels of personal protective equipment (PPE) to be used for various activities, decontamination procedures, air monitoring procedures, and emergency resources and information.

## 1.3 Scope and Applicability of the Health and Safety Plan

This HASP has been prepared in accordance with guidelines set forth in Title 8 of the California Code of Regulations, Section 5192 (8 CCR 5192), *Hazardous Waste Operations and Emergency Response*. The provisions of this HASP are mandatory for all field personnel. Subcontractors performing fieldwork in association with this investigation shall either adopt or abide by this HASP, or shall develop their own safety plans, which at a minimum meet the requirements of this HASP. All on-site personnel shall read this plan and sign the accompanying HASP Acknowledgement Sheet before beginning field activities.

All on-site personnel are responsible for operating in accordance with all applicable regulations of the Occupational Safety & Health Administration (OSHA) and California OSHA (Cal/OSHA).

## 2 SITE DESCRIPTION

#### 2.1 Local Description

The Site is located at 12908-12964 Panama Street in Los Angeles, California, in a mixed commercial and industrial area (Figure 1, Appendix B). The Site is an approximately 5.72 acres property located just south of Panama Street, between Alla Road and Beethoven Street, which is developed with five main buildings and a variety of smaller storage structures. The Ballona Creek Channel and the Pacific Ocean are

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approximately 0.25 miles south and 2.25 miles west of the Site, respectively. While site specific information was not identified, regional data presented in Los Angeles County Department of Public Works and State Water Resources Control Board online databases indicate that depth to ground water beneath the Site likely ranges from 12 to 20 feet below ground surface (bgs).

Based on interviews conducted with Teledyne personnel, a site reconnaissance conducted February 6, 2013, and a review of the recent Phase I Environmental Site Assessment dated January 2013 by Environ International Corporation, potential areas of concern identified for the environmental due diligence assessment and CUPA permit closeout include the following:

- Historical locations of chlorinated solvent vapor degreaser stations;
- The location of current and historical plating lines;
- The current and historical waste water conveyance and processing system;
- The location of historical chemical spills;
- The hazardous materials storage area; and
- The hazardous waste storage area.

From April 25, 2013 through June 11, 2013, Alta Environmental conducted an environmental investigation to identify chemicals of concern (COCs) and delineate the extent of contamination. This environmental investigation is the primary basis of these RAs.

#### 2.1.1 Current Uses of the Site

The Site consists of five properties, 12908, 12910, 12930, 12950, and 12964 Panama Street. The buildings are part of a current and former microelectronic manufacturing plant.

#### 2.1.2 Site History

For historical usage of the Site, refer to the recent Phase I Environmental Site Assessment dated January 2013 by Environ International Corporation.

## **3 ROLES AND RESPONSIBILITIES**

A number of roles are required for the safe and efficient operation of the field team. These roles include Project Manager, Health and Safety Manager, Field Team Leader, Site Safety Officer (SSO) and field personnel. Team members may take on more than one role, and will be clearly assigned prior to the start of field activities.

### 3.1 Project Manager

The Project Manager is responsible for the overall operation of the project, including safety during field activities. Specific responsibilities include organization of all project work assignments, assigning personnel to specific duties, ensuring that the field team follows health and safety procedures approved by the Health and Safety Manager, and overall quality assurance/quality control of the project. The Project Manager will

also be responsible for the day-to-day progress of the project and will hold review and planning meetings as necessary with all technical personnel, during which the current progress, problems encountered, and future direction will be discussed.

## 3.2 Health and Safety Manager

The Health and Safety Manager is responsible for the design and, with assistance from the Project Manager on personnel issues, implementation of the health and safety program for this project. This includes developing the Site HASP, ensuring that all on-site workers have met the necessary health and safety training requirements and are knowledgeable about the work they will perform, assigning a qualified SSO to the field team, verifying compliance with all applicable safety and health requirements, and updating equipment and procedures based on new information gathered during the course of work.

## 3.3 Field Team Leader

The Field Team Leader is responsible for the operation of the field team. Responsibilities include organization of field activities, compliance with the provisions of project work plan, field documentation and record keeping, quality control of field activities, and communication with the Site's correspondent. The Field Team Leader, along with the SSO, will also ensure that subcontractors and outside observers comply with the HASP.

#### 3.4 Site Safety Officer

The SSO is responsible for implementing the procedures stipulated in the HASP (Appendix H):

- Evaluating and amending the HASP daily to remedy deficiencies and post entry briefings;
- Determining the levels of personal protection based on observations or changing field conditions;
- Controlling Site entry and exit;
- Briefing the field team on the health and safety decontamination procedures required for various field activities;
- Monitoring the field team for signs of stress or exposure;
- Initiating emergency procedures, if necessary;
- Verifying that field team members have met the health and safety requirements for field activities;
- Being available to document and respond to any concerns or complaints made by personnel onsite;
- Documenting unsafe work practices or conditions;
- Documenting any accidents or incidents that result in illness or injury to personnel; and
- Issuing stop work notices if Site conditions become unsafe, with conference with the Project Manager and/or the Health and Safety Manager.

## 3.5 Field Technicians

The field technicians are responsible for complying with the HASP, notifying the SSO of hazardous or potentially hazardous conditions, and carrying out specialized tasks during field operations. These tasks include inspecting, calibrating, maintaining, and using field equipment; maintaining decontamination stations; preparing and decontaminating sampling equipment; collecting and preserving samples; and packaging and shipping samples according to proper chain-of-custody procedures.

### 3.6 Air Monitoring Technician

The responsibilities of the Air Monitoring Technician:

- Performing real-time particulate monitoring, as appropriate, to ensure contaminants are not migrating
  off the Site, and recording results;
- Performing personnel and area sampling, and recording results;
- Monitoring weather conditions using a meteorological station and/or Internet information; and
- Informing all Site personnel of existing conditions.

## 4 TRAINING AND MEDICAL MONITORING REQUIREMENTS

All personnel, including subcontractors participating in the fieldwork, will have completed a 40-hour health and safety training course (8 CCR 5192(e)) as appropriate for their particular tasks and have annual refresher training. Before personnel arrive on-site, each employer will be responsible for certifying that its employees meet the Cal/OSHA training requirements.

Each worker will be familiar with the requirements of the HASP, and will participate in Site activity and safety briefings. Medical surveillance is conducted as a routine program, which meets the requirements of 8 CCR 5192 (f); the medical surveillance program is detailed in Appendix F. There will be no special medical tests or examinations required for personnel involved in this project.

All personnel will be trained to operate their respective equipment, including respiratory protection (if needed). Under no circumstance will untrained or unqualified personnel operate equipment.

## 5 DESCRIPTION OF FIELDWORK

The recommended Remedial Action (RA) remedy, as deemed preferable by the Los Angeles Region Water Quality Control Board (LARWQCB), combines excavation with off-Site disposal of the impacted soil. Alta Environmental will provide remedial action oversight support and act as the On-Site Remediation Engineer, satisfying DTSC requirement as part of the Construction Quality Assurance (CQA) process. During excavation, stockpiling and backfill, an environmental contractor field representative will be on-Site. The activities that would be conducted are described below.

#### 5.1.1 Excavation of Soils

The approved remedial response for soils impacted with COCs at the Site is excavation and off-site disposal. Alta Environmental will conduct environmental oversight of the remediation, confirmation soil sampling, air monitoring, and document all RAs in a final report. A selected remedial contractor will conduct all field activities related to the soil excavations, soil stockpiling, loading, transport, and disposal of the impacted soil. The excavation activities will be performed in accordance with the Alta Proposal and any permits regarding this site. The excavation areas include the following:

 Approximately 6,600 cubic yards (or 9,900 tons) of COC-impacted shallow soils will be excavated. Excavated soil will be categorized prior to export.

Soils will be removed using a backhoe and/or excavator and the soils will be transferred to the edge of the excavation area where it will be either directly loaded onto trucks for off-Site disposal or stockpiled and covered with plastic sheeting to be taken off-Site at a later date. During excavation and material handling, the use of water mist will be used to reduce fugitive dust. The water will be available via a water truck or other available water source located on the Site.

Soil gas, soil matrix, and groundwater sampling will be performed during the field activities. All activities shall be performed by personnel specifically trained and experienced in this type of operation. Mechanical drilling equipment (direct-push units, etc.) and/or manual digging equipment (hand augers, etc.) will be utilized during the sampling event. Water spray or other forms of vapor and dust control will be adopted during the sampling activity to prevent fugitive dust emissions, as warranted. Personnel within the work zone will be employed with PPE to reduce the exposure to the chemicals of concern (COCs) and to minimize potential injuries. A description of the fieldwork is summarized in the following sections.

#### 5.1.2 Confirmation Sampling

Once complete, each excavation area will be sampled at the bottom and sidewalls to verify contaminant removal and to confirm that elevated levels COCs meet the selected cleanup goals (CG) and do not extend vertically to deeper depths or horizontally beyond the excavation boundaries.

#### 5.1.3 Excavation Areas Backfill

After confirmation sampling has been completed, the RA contractor will import non-impacted soils and backfill excavation areas to original levels. The RA contractor will provide documentation regarding the source and profile of the import material.

#### 6 CHEMICAL HAZARDS

The presence of chemical hazards at the Site has been confirmed; however, the primary suspected potential constituents of concern associated with the Site are various VOCs in shallow soil. Brief toxicological profiles of the major constituents of concern are included below and in Appendix G. Chemical and physical characteristics of these compounds are presented in Table 1 (Appendix A).

Potential exposures to these chemicals during field activities are included in the following table

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Apparent Hazard		<ul> <li>Type of Facility</li> </ul>	1	Status of Facility		
Serious	•	• Dump	•	Active	• X	
Moderate	•	Landfill	•	<ul> <li>Inactive</li> </ul>	• X	
• Low	• X	Open	• X	• Unknown		
None	ö	Enclosed	•	•	•	
Unknown	•	Other		• •	•	
•		•	•	•	•	
Waste Types		Waste Characte	eristics	• Type/Form of Hazard		
• Gas	•	<ul> <li>Toxic</li> </ul>	• X	<ul> <li>Dust</li> </ul>	<b>G</b> .	
Liquid	• X	Corrosive	0	<ul> <li>Liquid</li> </ul>	• X	
Sludge	•	Ignitable	ð.	Fumes		
Solid	• X	Volatile	• X	<ul> <li>Vapors</li> </ul>	• X	
Unknown	•	Radioactive	4	<ul> <li>Contact</li> </ul>	• X	
Other	đ	Reactive	3	<ul> <li>Respiratory</li> </ul>	÷	
•	•	Unknown	*	Other	•	
•	•	Other	•	• IDLH	•	
				-	<u> </u>	

- Inhalation of airborne dust and VOCs during excavation, loading, transportation and other soil handling activities;
- Dermal contact with and accidental ingestion of potentially contaminated rinse liquid and soil residue during soil removal; and
- Splash hazards during handling of soils saturated by groundwater.

To protect workers from eye and skin contact, skin absorption, and accidental ingestion of airborne dust, PPE will be used as outlined in Section 8.

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## 6.1 Hazard Assessment

A literature review was conducted to find exposure limits and concentrations immediately dangerous to life and health (IDLH) for the constituents of concern in environmental media at the Site. Exposure limit data are expressed as 8-hour time-weighted averages (TWAs). TWAs promulgated in OSHA regulations are referred to as permissible exposure limits (PELs). The American Conference of Governmental and Industrial Hygienists adopt values for exposure limits that are referred to as threshold limit values (TLVs).

Exposure limits and the IDLH for the constituents of concern are depicted in Table 1 (Appendix A). These data are also used to establish action levels to determine when personnel should upgrade from Level D PPE (i.e., no respiratory protection) to Level C PPE (i.e., full-face air-purifying respirator) and to select the appropriate types of outer garments, gloves, and respirator cartridges. Action levels triggering an upgrade in respiratory protection from Level D to Level C are established by examining exposure limit data and selecting compounds with the lowest PEL. Site work will be initiated in Level D protection.

#### 6.1.1 Volatile Organic Compounds

VOCs (TCE, 1,2-DCE, and PCE) have been identified as COCs at the Site. Personal protection and sanitation includes preventing skin and eye contact and flushing immediately if contact occurs. Exposure routes include inhalation, skin absorption, ingestion, skin and eye contact. Symptoms of exposure may include irritation in the eyes, skin, nose or respiratory system; giddiness; headache; nausea; staggered gait; fatigue; dermatitis; bone marrow depressant/depression. TCE, 1,2-DCE, and PCE are potential occupational carcinogens. Any air-purifying respirator with a VOC particulate filter or supplied-air respirator operated in a pressure-demand or other positive-pressure mode that has a full facepiece is recommended.

#### 6.1.2 Metals (Arsenic)

Heavy metals, including arsenic, have been identified as potential COCs at the Site. Personal protection and sanitation includes preventing skin and eye contact and flushing immediately if contact occurs. Exposure routes include inhalation, ingestion, skin and eye contact. Symptoms of exposure may include weakness, lassitude, insomnia; pallor; anorexia, weight loss, malnutrition; constipation, abdominal pain, colic; anemia; gingival lead line; tremor; paralysis in wrist, ankles; kidney disease, irritation of the eyes; and hypotension. Some metals could be considered potential occupational carcinogens. Any air-purifying respirator with a high-efficiency particulate filter or supplied-air respirator operated in a pressure-demand or other positive-pressure mode that has a full facepiece is recommended.

Exposure guidelines for the potential project-specific COCs are presented in Table 1 (Appendix A). Properties and Toxicological profiles of the project-specific COCs are presented in Appendix G.

## 7 PHYSICAL HAZARDS

Field personnel should be aware of and act to minimize dangers associated with physical hazards typically encountered during Site activities. These hazards include heat-related illnesses, uneven terrain, slippery surfaces, and lifting. Personnel will walk at all times. Running greatly increases the probability of slips, trips, and falls.

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## 7.1 Heat Stress

The potential for heat stress is higher on this Site during the summer months, given the warm southern California climate and potential use of protective garments. Workers in a hot environment can lose as much as 3 gallons of fluids and electrolytes in sweat, and therefore must be able to readily compensate for this loss.

Fluids should be replaced every 20 minutes and in amounts greater than are necessary to satisfy normal thirst. Water should be kept cool throughout the operation; a temperature of 50° – 60°F is recommended. Lost salt can be compensated by using a 0.1% saline solution as drinking water (one gram salt per liter of water, or one level tablespoon per 15 quarts of water).

Heat stress and heat stress monitoring are discussed in Appendix E. Heat illness prevention will comply with 8 CCR §3395.

## 7.2 Severe Weather

Fieldwork will not be conducted when lightning can be seen or thunder heard from the work area. When lightning and/or thunder occur, employees are to cease work, perform emergency personal and equipment decontamination as needed, and then seek shelter.

During extreme weather conditions, the Field Team Leader shall use his/her best judgment and has the authority to stop fieldwork or dismiss workers for the day. Examples of conditions that may warrant work stoppage include: high winds, hail, and flooding.

## 7.3 Heavy Equipment

Any equipment defects that affect safety will be corrected by the RA contractor in a timely manner so that a personnel hazard is not created. When defects make continued operation hazardous to personnel, the defective equipment will be taken out of service and placed in the designated area for repair. Once tagged out, continued use of equipment is prohibited until the defects are repaired. Defects on self-propelled mobile equipment affecting safety that are not corrected immediately will be reported to the Field Team Leader. The Field Team Leader will keep a log that will include the date the defect was reported, the equipment's identification, a description of the defect, and the date of repair.

Equipment repairs or maintenance will be performed only after the power is off, and the equipment is blocked against hazardous motion. Equipment motion or activation is permitted to the extent that adjustments or testing cannot be performed without such motion or activation, provided that people are effectively protected from hazardous motion.

Operators of self-propelled mobile equipment will maintain control of the equipment while it is moving. Operating speeds will be consistent with conditions of roadways, grades, clearances, visibility, traffic, and the type of equipment used. Equipment will be operated at speeds that permit stopping in no more than half the visibility distance.

People will not be transported

- in or on dippers, clamshells or buckets,
- in beds of mobile equipment,

- atop loads in mobile equipment,
- outside cabs, equipment operator's stations, or beds of mobile equipment, and
- to or from work areas in overcrowded equipment (i.e., the vehicle will not carry more people than the number of seats on that vehicle).

All self-propelled mobile equipment will be equipped with a service brake system capable of stopping and holding the equipment with its typical load on the maximum grade it travels (does not apply to equipment not originally equipped with brakes). If equipped, the parking brake on self-propelled mobile equipment will be capable of holding the equipment under typical load condition on the maximum travel grade.

All braking systems installed on self-propelled mobile equipment will be maintained in a functional condition.

Front-end loaders and buildozers should have protection from failing objects.

Seat belts meeting the requirements of SAE J386, *Operator Restraint Systems for Off-Road Work Machines,* 1985, will be provided and worn in haulage trucks. Seat belts will be maintained in functional condition and replaced when necessary to assure proper performance.

Mobile equipment will not be left unattended unless the controls are placed in the park position, the parking brake, if provided, is set, and the ignition turned off.

People will not work on top of, under, or from mobile equipment in a raised position until the equipment has been blocked or secured to prevent it from rolling or falling accidentally.

Care will be taken to locate all overhead power lines before sampling activity begins. Under no circumstances should any part of the mobile equipment be positioned within the minimum clearance from exposed and energized electrical wires. The equipment operator will ensure there is sufficient overhead clearance (i.e., no part of the equipment will hit or touch any overhead obstruction when raised nor will it hit or touch any object while being raised) before raising any part of the equipment through careful preplanning.

## 7.4 Trenching and Excavation

An excavation is considered to be any man-made cut, cavity, trench, or depression in an earth surface, formed by earth removal. All operations involving excavation or trenching will be performed in accordance with 29 CFR 1926.650 and Cal/OSHA regulations for excavations (8 CCR, §1539–1547).

Soil removal areas are defined in the RAW. It is not anticipated that the site investigation activities will include confined space entry. Personnel will not enter any excavation exceeding 4 feet in depth unless appropriate shoring or sloping of sidewalls has been conducted.

#### 7.4.1 Inspections

Daily inspections of excavations, the adjacent areas, and protective systems will be made to determine whether a situation exists that could result in possible cave-ins, failure of protective systems, hazardous atmospheres, or other hazardous conditions. An inspection will be conducted prior to the start of fieldwork and as needed throughout the shift.

Inspections will also be made after every rainstorm to ensure that no water accumulation has occurred. Employees shall not work in excavations where water has accumulated, unless adequate precautions are taken to protect employees against the hazards posed by water accumulation. The precautions necessary to protect employees adequately vary with each situation, but could include special support or shield systems to protect from cave-ins, water removal to control the level of accumulating water, or use of a safety harness and lifeline.

Potential physical hazards associated with this project include, but are not limited to, working around heavy equipment, electrocution, slippery terrain, noise, weather conditions, and heat stress.

#### 7.5 Electrocution

If drilling will be taking place in close proximity to overhead power lines, Alta will defer to the following:

#### CA Penal Code 385

(a)The term "high voltage" as used in this section means a voltage in excess of 750 volts, measured between conductors or measured between the conductor and the ground.

The term "overhead conductor" as used in this section means any electrical conductor (either bare or insulated) installed above the ground except such conductors as are enclosed in iron pipe or other metal covering of equal strength.

(b)Any person who either personally or through an employee or agent, or as an employee or agent of another, operates, places, erects or moves any tools, machinery, equipment, material, building or structure within six feet of a high voltage overhead conductor is guilty of a misdemeanor.

(c)It shall be a misdemeanor to own, operate or to employ any person to operate, any crane, derrick, power shovel, drilling rig, hay loader, hay stacker, pile driver, or similar apparatus, any part of which is capable of vertical, lateral or swinging motion, unless there is posted and maintained in plain view of the operator thereof, a durable warning sign legible at 12 feet, reading: "Unlawful to operate this equipment within six(\*) feet of high voltage lines."

\*Note - California Title 8 Regulations supersede the six foot radius and require ten feet for a greater safety.

As a general rule of thumb, Alta and the drilling contractor will keep mast a minimum of 15 feet from overhead power lines (20 ft. if 230, 285 kv / 25 ft. if 345 kv / 35 ft if 500 kv). Check with utility company if in doubt

Electrical power lines above (overhead) and below ground will be identified at the Site before to the start of any activities to prevent electrocution. Minimum safe distance will be established by the SSO in areas of overhead and underground power lines. Subcontracted utility locating services will be used as necessary to locate or confirm the presence of suspected underground utilities at drilling or boring locations (Section 7.4.2).

#### 7.5.1 Lockout/Tagout

Teledyne Microelectronics Technologies has implemented a Lockout/Tagout program to be used on any and all pieces of equipment that could possibly become energized. The Lockout/Tagout protocol can be

found in the attached Appendix M. All workers onsite shall refer to the protocol prior to performing work in any equipment that could possibly become energized.

#### 7.5.2 Underground Utilities

Underground Service Alert (USA) will be contacted a minimum two 2 working days in advance of any underground intrusive activities. The estimated location of utility installations, such as sewer, telephone, fuel, electrical, potable/sanitary water, or any other underground installations that reasonably may be expected to be encountered during sampling work, shall be determined prior to sampling activity. When sampling activity approaches the estimated location of underground installations, the exact location of the installations shall be determined by safe and acceptable means.

#### 7.5.3 Geophysical Survey

A geophysical survey will also be conducted in an effort to locate detectable utilities at the proposed boring locations so they can be avoided during drilling. The survey will include the use of various utility-locating equipment, including ground-penetrating radar. Detected subsurface features will be marked on the ground with spray paint in a color code established by the American Public Works Association.

## 7.6 Slippery Terrain, Slips, Trips and Falls

Slippery and uneven terrain is common and may increase the risk of injuries. Personnel will wear the appropriate foot protection while on-site. The SSO will monitor Site work surfaces for potential trip and fall hazards. Overhead hazards consist of potential contact with falling objects, rigging equipment, or other items in use at the Site. Hard hats are required at all times when at the Site.

#### 7.7 Noise

The use of drilling equipment may produce continuous and impact noise at or above the action level of 85 dBA. All Site personnel within 25 feet of operating equipment, or near an operation that creates noise levels high enough to impair conversation, will wear hearing protective devices (either muffs or plugs). Personnel will wash their hands with soap and water prior to inserting earplugs to avoid initiating ear infections.

## 8 PERSONAL PROTECTIVE EQUIPMENT (PPE)

The level of employee protection for the work to be completed during Site activities was determined by researching Site conditions, reviewing planned activities, and identifying Site-specific physical and chemical hazards.

## 8.1 Selection of Personal Protective Equipment

Protective equipment is selected based on the types, concentrations, and routes of personal exposure that may be encountered. In situations where the types of materials and possibilities of contact are unknown or the hazards are not clearly identifiable, a more subjective determination will be made about the PPE required, and greater emphasis is placed on experience and sound safety practices. As discussed above, PPE for Site workers will be based on Site history and on the activities to be performed.

The initial level of PPE for all Site work will be Level D, which consists of the following:

- Coveralls or similar
- Steel-toed boots
- Safety glasses
- Nitrile inner and outer gloves
- Hard hats
- Safety reflective vests
- Ear plugs (when heavy equipment is operating)

However, due to potentially elevated concentrations of metals in concrete and soil, work being conducted near Building #1 at Borings B5 and B6 may require Level C, which consists of all the parameters of Level D with the addition of:

Full-face or half-mask, air purifying respirators (NIOSH approved).

PPE requirements are subject to change as Site information is updated or changes. Work will stop until the HASP is updated, if the following Site conditions change and warrant upgrade to a higher PPE level:

- Change in weather conditions
- Encountering of contaminants other than those previously identified
- Change in ambient levels of contaminants
- Change in work scope that affects the degree of contact with contaminants

## 9 ILLUMINATION

Nighttime work activities are not proposed for this project.

## 10 STANDARD OPERATING PROCEDURES

The standards regarding Safety Rules and Personal Hygiene and Use and Decontamination of PPE are detailed in Appendices C and D, respectively.

#### 10.1 Site Safety Meeting

Site safety orientation and training meetings will be convened (1) before the field team begins work at the Site, (2) when there are modifications to the Site safety plan that are applicable to the field personnel, and (3) when additional personnel or subcontractors begin fieldwork. Safety meetings will be held on a daily basis, attended by personnel involved in carrying out the project, and presided over the SSO or his/her designee.

At a minimum, the meeting agenda will include

- A review of the Site Safety Plan, and
- Attendee signatures, acknowledging receipt and understanding of the plan and agreement to comply.

## 10.2 Administrative Action

Observed violations of safety procedures can result in immediate removal of the violator from the Site. The Project Manager will take administrative action on each violation. In the event of a violation, the nature of the violation, the past record of the violator, and any extenuating circumstances will be reviewed. The SSO and Health and Safety Manager will provide a recommendation to the Project Manager regarding administrative actions such as retraining and reassignment, change in clearance status, or permanent dismissal from the Site.

### **10.3 Standard Operating Procedures**

The following Standard Operating Procedures (SOPs) will be utilized on-site:

- No eating, drinking, smoking or applying lip balm in the exclusion zone.
- The buddy system shall be used for all work on-site.
- Site security issues will be implemented to ensure that only authorized personnel have access to the Site work zones.
- All personnel and equipment will be decontaminated prior to exiting the Site.
- Proper PPE, appropriate for the work zone conditions, shall be utilized at all times.

## 10.4 General Rules of Conduct

The following general rules of conduct are required for all personnel working on this project:

- Liquor, firearms, narcotics, tape recorders, and other contraband items are not permitted on the premises.
- Any violation of local, state, or federal laws, or conduct outside the generally accepted moral standards of the community is prohibited.
- Willfully damaging or destroying property, or removing records is forbidden.
- Misappropriation or unauthorized alteration of any record is forbidden.
- Gambling in any form, selling tickets or articles, taking orders, soliciting subscriptions, taking up collections, etc., is forbidden.
- Compliance with posted signs and notices is required.
- Boisterousness and noisy or offensive work habits, abusive language, or any oral, written, symbolic, or other communication that tends to disrupt work or morale of others is forbidden.
- Fighting or threatening bodily harm to another is forbidden.

- Defacing any property is forbidden.
- Wearing shorts of any type and/or offensive logos, pictures, or phrases on clothing is forbidden. Shirts, shoes, and pants, slacks, or coverall-type garments will be worn at all times.
- Individuals operating motor vehicles will obey all traffic regulations.

#### **11 CONFINED SPACES**

According to the 8 CCR §5157(b), a confined space is defined as a space that (1) is large enough and so configured that an employee can bodily enter and perform the assigned work; (2) has limited or restricted means of entry or exit (i.e., one exit); and (3) Is not designed for continuous employee occupancy.

It is not anticipated that the project activities will include confined space entry.

#### **12 AIR MONITORING**

This section details the air monitoring strategy and methodologies that will be used for the RAW activities at the Site. In consultation with the LARWQCB or any other oversight agency, the air monitoring program may be modified as warranted in the field. The strategy and methodologies are designed to achieve several goals:

- Identify and measure the air contaminants generated during the soil removal and decontamination
  activities to assure the appropriate assignment of PPE and safety systems specified for those activities.
- Provide feedback to site operations personnel regarding potential hazards from exposure to hazardous air contaminants generated through site activities.
- Identify and measure air contaminants at points outside the soil removal and decontamination exclusion zones. Air monitoring will be conducted during work activities to measure potential exposure of sensitive receptors, including commercial and residential areas, to Site chemical constituents as a result of removal activities.

#### 12.1 Site Air Monitoring/Health and Safety Personnel

Air monitoring will be performed during all Site activities in which contaminated or potentially contaminated materials are being disturbed or handled. Air monitoring may include some or all of the following:

- Monitoring dust levels in the exclusion zone and at the nearest downwind receptor locations. The Site
  air monitoring professional will have the authority to stop-work in the event that dust levels in the work
  zone or downwind locations exceed action levels. The air monitoring professional will monitor on-Site
  meteorological instrumentation and coordinate with off-Site meteorological professionals to identify
  conditions that require cessation of work (e.g., wind in excess of 25 mph).
- Monitoring VOCs levels while excavation of VOC impacted soil will be conducted in accordance with South Coast Air Quality Management District Rule 1166 – Volatile Organic Compound Emissions from Decontamination of Soil.

- Ensuring that all appropriate real-time aerosol monitors and industrial hygiene air sampling equipment and media are properly calibrated and in good working condition. Real-time, data-logging aerosol monitors (personal data ram) will be used to measure dust levels in the exclusion zone, upwind and downwind. Real-time information will be posted daily, and discussed with Site workers. As analytical results for industrial hygiene samples (an OSHA/NIOSH-approved method, e.g., NIOSH 7082 method for lead dust scan) are received, the air monitoring professional will prepare summary sheets and discuss results with on-Site management and workers.
- Coordinating general Site safety activities, including all daily hazard communication, safety practices and procedure briefings.
- Overseeing personal decontamination practices.
- Providing general site safety leadership, support and recordkeeping activities.

#### 12.2 Air Monitoring Strategy and Methodologies

The RA contractor will monitor COC concentrations in the exclusion zone and at the work area boundary nearest to downwind receptor locations. Action levels for the Site COCs are presented in the table below.

Exposure Guidelines for Site Chemical Hazards					
Chemical Name	Odor Threshold	CAL/OSHA	ACGIH TLV <sup>D</sup>	Site Action Levels	Community Action Level (Fence Line) <sup>th</sup> °
Total Dust	Not listed	10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	1.0 mg/m <sup>3</sup>	0.05 mg/m <sup>3</sup>
Arsenic	Not listed	0.010 mg/m <sup>3</sup>	0.002 mg/m <sup>3</sup>	5 µg/m <sup>3</sup>	1.5 μg/m³
VOCs	Varies	Varies	Varies	50 ppm	50 ppm

Notes:

- a. Permissible Exposure Limits (8 CCR 5155, Table AC1)
- b. 2008 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices, American Conference of Governmental Industrial Hygienists
- c. Site Action Level is calculated as the dust equivalent concentration. Because of the importance of limiting airborne emissions and the potential for employees to inhale dust-laden contaminants, it is important that real-time monitoring of airborne particulate be conducted. To ensure that the respirable dust PEL is protective enough for fugitive dust generated containing Contaminants of Particular Concern (COPC), dust-equivalent action levels have been determined for each particular non-volatile COC. In general, this method derives the dust equivalent action level for a non-volatile COC by considering the COC's maximum concentration in soil and its DOSH PEL or other Action Level. When the chemical specific dust equivalent action level is in excess of the respirable dust action level, the more conservative (lower) action level is used. Thus, the respirable dust equivalent of 5.0 mg/m<sub>3</sub> was used. If Site air contaminants cannot be controlled reliably within 15 minutes, all work will cease and a Certified Industrial Hygienist will be consulted.
- d. Community action level for total dust/particulate is based on South Coast Air Quality Management District regulations.

- e. Community action level for a specific chemical dust is normally based on the available ATSDR MRL Equivalent Air Concentrations.
  - ✓ Site dust levels will be measured using real time aerosol monitors.
  - ppm parts per million
  - ✓ mg/m<sup>3</sup> milligrams per cubic meter
- f. As coal tar pitch volatiles

#### 12.3 Site Dust Control and Monitoring

The RA contractor will implement appropriate procedures to control the generation of airborne dusts by soil removal activities. Such procedures will include but will not be limited to the following:

- The site air monitoring professional will monitor dust levels in the exclusion zone and at locations
  upwind and downwind. The site air monitoring professional will have the authority to stop work in the
  event that on-Site activities generate dust levels in excess of action levels. Dust control equipment will
  be constantly available on-Site. The RA contractor will control the spread of dusts by spraying water on
  disturbed soils as necessary to maintain dust levels within the specific action levels.
- The air monitoring professional will monitor on-Site meteorological instrumentation and coordinate with off-Site meteorological professionals to identify conditions that require cessation of work (e.g., wind speeds in excess of 25 mph).
- The RA contractor will utilize real-time, data-logging aerosol monitors (Personal DataRam or equivalent) manufactured by MIE. These instruments will be calibrated daily, with monitoring information posted daily and discussed with Site workers. The monitors may be placed in the following general locations:
  - Upwind from the Site
  - ✓ Proximate to work in the exclusion zone
  - Three fence-line downwind locations

The specific locations of the monitors will be determined by the Air Monitoring Professional in consultation with a Certified Industrial Hygienist (of RA contractor or the LARWQCB). The monitors will be set to log dust levels every five minutes. The RA contractor's personnel will check all monitoring equipment every 15 minutes.

#### **13 EXPOSURE MONITORING**

The following exposure monitoring strategy and methodologies will be used for the field activities at the Site. The exposure monitoring program may be modified as warranted in the field. The strategy and methodologies are designed to achieve the following goals:

 Identify and measure the air contaminants generated during the subsurface sampling and decontamination activities to assure the appropriate assignment of PPE and safety systems specified for those activities; and

 Provide feedback to Site operations personnel regarding potential hazards from exposure to hazardous air contaminants generated through Site activities

#### 13.1 Strategy and Methodologies

During the field activities, vapor concentrations in the worker breathing zone will be monitored. Exposure guidelines for the Site COCs are presented in the table below (NIOSH, 2006).

Exposure Guidelines for Site Chemical Hazards					
Chemical Name	Odor Threshold	CAL/OSHA PEL (TWA) <sup>(a)</sup>	ACGIH TLV	IDLH	
PCE	1.0 ppm	25 ppm	25 ppm	150 ppm	
TCE	28 ppm	100 ppm	270 mg/m³	1,000 ppm	
1,2-DCE	6-10 ppm	202 mg/m³	40 mg/m³	1,000 ppm	

#### NOTES:

(a) Permissible Exposure Limits (8 CCR 5155, Table AC1)

<sup>(b)</sup> 2008 Threshold Limit Values (TLV) for Chemical Substances and Physical Agents and Biological Exposure Indices, American Conference of Governmental Industrial Hygienists (ACGIH)

TWA — Time-weighted average (concentration should not be exceeded during an 8-hour workday during a 40-hour work-week)

STEL - Short-term exposure limit (15 -minute TWA exposure that should not be exceeded at any time during a workday)

IDLH - Immediately dangerous to life or health concentrations

NA — Not applicable

ppm --- parts per million

mg/m<sup>3</sup> — milligrams per cubic meter

Ca [N,D] — NIOSH considers this a potential carcinogen. However, IDLH values that were originally determined in the Standards Completion Program or were subsequently revised are shown in brackets. "N.D" indicates that an IDLH value has not been determined for that substance

#### 13.2 Exposure Monitoring Procedure

If required, a PID with a minimum of an 11.7-electron volt probe or equivalent will be calibrated daily according to the manufacturers' instructions using isobutylene or hexane, and used to establish baseline ambient air conditions before field activities begin. The PID will be used to measure the vapor levels in the breathing zone of on-site personnel every 15 to 30 minutes.

If required, breathing zone PID readings will be used to establish the level of PPE required. Sustained readings of greater than 5 parts per million (ppm) above background in the breathing zone dictate that the personnel should be withdrawn temporarily from the work zone pending characterization of the contaminants present. When the workplace atmosphere has been characterized or returns to acceptable

levels, this information, along with data on the toxicity of the contaminants present, will be used to determine the level of PPE required in the work area (Section 8). Table 1 (Appendix A) summarizes the chemical and physical characteristics of Site COCs, as well as their associated PELs.

#### 14 DESCRIPTION OF SITE WORK ZONES

The following work zones may be established at the Site before commencing the field activities.

#### Exclusion Zone

All workers who enter the contaminated work area will wear the correct level of protection. The number of workers in this zone will be kept at a minimum.

#### Contamination Reduction Zone (CRZ)

Decontamination areas for field personnel and heavy equipment will be designated in the CRZ adjacent to the exclusion zone.

#### Support Zones

The administrative and break areas will be located in the support zone outside the CRZ and the overall work zone. The support zone will be located upwind from the overall work zone as permitted by Site meteorological conditions.

The work areas and Site shall be cleared and secured at the end of each workday.

#### **15 DECONTAMINATION**

Decontamination procedures, based on Level D protection, will consist of the following:

- Removing disposable coveralls (if used) and depositing it in a designated container
- Removing disposable gloves and other disposable PPE and depositing them in a designated container
- Washing hands and face, and preferably showering as soon as practical
- All disposable clothing and plastic sheeting used during activities will be properly disposed of in accordance with all applicable federal, state and local regulations.

Field SOPs for use and decontamination of PPE is presented in Appendix D.

#### **16 SANITATION**

Restrooms located at the Site may be used by field personnel.

#### **17 EMERGENCY SUPPLIES**

A fire extinguisher will be available on-site during field activities. Field technicians will be informed about the proper use of fire extinguishers. A first-aid kit will also be available on-site during field activities.

#### **18 EMERGENCY INFORMATION**

The proposed field activities may present a risk to on-site personnel. During routine operations, risk is minimized by establishing good work practices, staying alert and using proper PPE. Unpredictable events such as physical injury, chemical exposure, or fire may occur and must be anticipated.

If any situation or unplanned occurrence requires outside emergency assistance, immediately call the appropriate contact from the list provided in Section 19.1, below.

#### 18.1 First Aid

Move victim to fresh air and call emergency medical care. If victim is not breathing, give artificial respiration. In case of contact with material, immediately wash skin with soap and water. Remove and isolate contaminated clothing and shoes at the Site and follow MSDS recommendations, if available. For signs and immediate treatment of heat stress, refer to "Heat Stress Procedures" in Appendix E of this Health and Safety Plan.

#### 18.2 Emergency Contact Information

Emergency response shall be addressed according to the requirements of Title 8 CCR 5192. If it is determined that the emergency could threaten human health or the environment, the incident will be reported to the proper agencies:

Nearest Hospital (map provided below):

Marina Del Rey Hospital 4650 Lincoln Boulevard Marina del Rey, California 90292

Hospital Phone Number:	310-823-8911			
Emergency Response Number:	911			
Other Ambulance, Fire, Police, or Environmental	911			

#### 18.3 Hospital

Marina Del Rey Hospital is located at 4650 Lincoln Blvd, Marina del Rey, California approximately 3.4 miles west of the Site (map provided below). Directions to the hospital from the Site are as follows:

1. Head southwest on Panama St towards Alla Rd

2. Turn left onto Alla Rd

- 3. Turn right onto Culver Blvd
- 4. Turn left onto the Lincoln Boulevard N ramp

Destination will be on the right 4.6 Glencog Ave Alla Pada de end Tes Im Tey (noven Admiral Ave e. pan Ruberts Ave Glencae ANC Glen Alla Park Jered [d (9) Alla Rd MannaExpy (90) in Wa H arina Del The Ro ina Fwy y Hospital La Vijja Marina Administance Poliminanty Wash and the second IROIN SING Fillway Filinay Santa Monica Bay Properties Belons Creek Ere Patt Culver Marina Little League -Bito FILIVIEY La Tin-Va X Frinesa X coin Blud 19:07 ©2013 Google -0

Map data @2013 Cybercity, Google

Alta Environmental MCGU-13-6182 HASP July 8, 2013

5. Merge onto Lincoln Blvd

#### **18.4 Emergency Procedures**

Emergency procedures are to be followed if any of the following situations develop on-site:

- Any member of the field crew is involved in an accident or experiences any adverse effects or symptoms of exposure while on-site.
- A condition is discovered that suggests the existence of a situation more hazardous than anticipated.
- The following emergency procedures should be followed:
- Site work area entrance and exit routes will be planned and emergency escape routes delineated by the SSO.
- If any member of the field team experiences any effects or symptoms of exposure while on the scene, the entire field crew will immediately halt work and act in accordance with the instructions provided by the SSO.
- Identifying any conditions that would suggest a situation more hazardous than anticipated will result in the suspension of work until the SSO has evaluated the situation and provided the appropriate instructions to the field team.
- If an accident occurs, the Field Team Leader is to complete an Accident Report Form (Appendix J) for submittal to the appropriate company official.
- If a member of the field crew suffers a personal injury, the SSO will call 911 (serious injury) to alert appropriate emergency response agencies or administer on-site first aid (minor injury) as the situation dictates. An Accident Report Form (Appendix J) will be completed for any such incident.
- If a member of the field crew suffers a chemical exposure, the affected areas should be flushed immediately with copious amounts of clean water. If the situation dictates, the SSO should alert appropriate emergency response agencies, or personally ensure that the exposed individual is transported to the nearest medical treatment facility for prompt treatment. An Accident Report Form (Appendix J) will be completed for any such incident.

In the event of a Site emergency requiring evacuation, all personnel will evacuate to a pre-designated area located a safe distance from any health or safety hazard (typically the Site office, unless conditions dictate otherwise) and safely away from the area of influence. The primary and secondary meeting area will be established on a site-specific basis during the morning safety briefing. A head count will be completed by the Site Supervisor at the meeting area and further directions or response discussions coordinated at that point. During any Site evacuation, all employees shall be instructed to observe wind direction indicators. During evacuation, employees will be instructed to travel upwind or crosswind of the area of influence. The SSO will provide specific evacuation instructions, via the Site emergency radio if necessary, to Site personnel regarding the actual Site conditions.

A communication network will be set up to alert Site personnel of emergencies and to summon outside emergency assistance. Voice and radio communication may be used to communicate with personnel in the exclusion zone. Where phone service is not readily available, radios or portable phones should be used to

communicate with outside agencies. Site personnel should be trained to use the Site emergency communication network. Emergency phone numbers shall be posted at the phone or radio used for outside communication. The SSO is responsible for establishing the communication network prior to the beginning of work, and for explaining it to all personnel during the Site safety meeting. The following hand signals will be used where voice communications are not available in case of an emergency:

Hands gripping throat	Out of air, can't breathe		
Grip partner's wrist or both hands around waist	Leave area immediately		
Hands on top of head	Need assistance		
Thumbs up	OK, I am all right, I understand		
Thumbs down	No, negative		

#### 18.5 Emergency Staging Areas

In the case of evacuation, please refer to Emergency Evacuation Staging Areas attached in Appendix L. All workers will report to areas referenced on the provided map and await further instructions

#### 19 AUTHORIZED CHANGES TO THE HEALTH AND SAFETY PLAN

Changes to the HASP are to be documented by completing the *Authorized Changes to Site Health and Safety Plan* form (Appendix I). This completed form must be signed by the SSO, the Health and Safety Manager, and the Project Manager. A copy of each completed form is to be included with each copy of the HASP and made a part of the project files.

#### **20 REFERENCES**

- 1. Environ International Corporation, Phase I Environmental Site Assessment, January 2013.
- 2. Alta Environmental, Proposed Scope of Work 12908-12964 Panama Street, Los Angeles, California, April 12, 2013.

#### 21 HASP ACKNOWLEDGEMENT

All personnel, including subcontractors, participating in the fieldwork at the Site, must review this HASP with the SSO and sign the acknowledgement form presented in Appendix K.

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# Appendix A

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#### Table 1: Hazard Monitoring

### Chemical and Physical Characteristics - Contaminants of Concern

Contaminant of Concern (COC)	Routes of Exposure	IDLH	OSHA PEL (TWA)	STEL (TWA)	% LEL	Odor Threshold	Odor Description
Tetrachloroethene (PCE)	Inhalation, Absorption, Ingestion, & Contact	150 ppm	TWA 100 ppm; C 200 ppm; 500 ppm*	100 ppm	NA	1.0 ppm	Ether/ Chloroform-Like
Trichloroethylene (TCE)	Inhalation, Absorption, Ingestion, & Contact	1,000 ppm	TWA 100 ppm; C 200 ppm; 300 ppm*	NA	8% (77°F)	28 ppm	Chloroform-like
1,2-Dichloroethylene (1,2,-DCE)	Inhalation, Absorption, Ingestion, & Contact	Ca [N.D.]	202 mg/m <sup>3</sup>	200 ppm	5.6%	.6-10 ppm	Pleasant chloroform-like
Arsenic	Inhalation, Absorption, Ingestion, & Contact	5 mg/m <sup>3</sup>	0.010 mg/m <sup>3</sup>	0.002 mg/m <sup>3</sup>	NA	NA	None

TWA = Time-weighted average (concentration should not be exceeded during an 8-hour workday during a 40-hour work-week)

STEL = Short-term exposure limit (15 -minute TWA exposure that should not be exceeded at any time during a workday)

IDLH = immediately dangerous to life or health, concentration

TPH = Total petroleum hydrocarbons

NA = Not Applicable

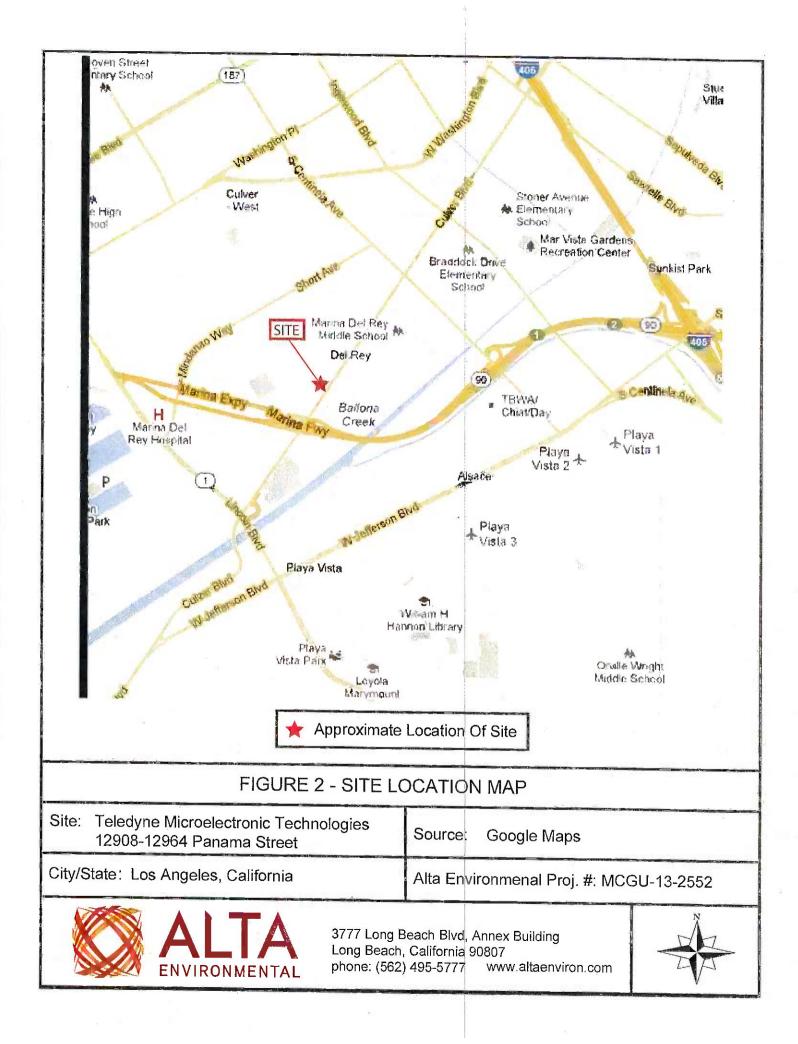
? = unknown

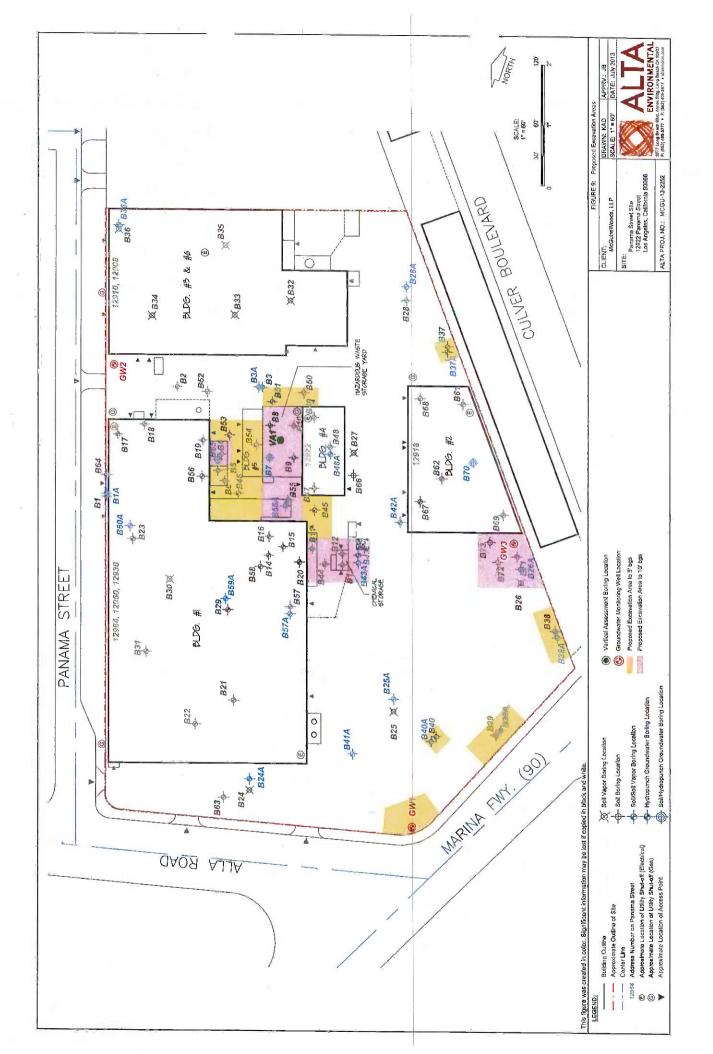
C = ceiling recommended exposure limit (REL); unless otherwise noted, the ceiling value should not be exceeded at any time

\* = 5-minute maximum peak in any 3-hours

Ca[N.D] = NIOSH considers this a potential carcinogen. However, iDLH values that were originally determined in the Standards Completion Program or were subsequently revised are shown in brackets. "N.D" indicates that an IDLH value has not been determined for that substance

## Appendix B





### Appendix C Safety Rules and Personal Hygiene

#### Appendix C: Safety Rules and Personal Hygiene

Remove all facial hair that interferes with a satisfactory fit of respiratory protective equipment.

Do not wear contact lenses while wearing full-face respirators.

Do not take prescribed drugs unless specifically approved by a physician. Notify the SSO that prescription medication is being taken.

In the work zone, do not eat, drink, smoke, chew gum or tobacco, or engage in any other practice that increases the probability of hand-to-mouth transfer or ingestion of material.

Wash hands and face thoroughly after leaving the work area and before eating, drinking, or any other activities.

Thoroughly wash entire body as soon as possible after removing Level C protective garments.

Whenever possible, avoid contact with contaminated or suspected contaminated surfaces.

Appendix D Field Standard Operating Procedures for Use and Decontamination of Personal Protective Equipment

## Appendix D: Field Standard Operating Procedures for Use and Decontamination of Personal Protective Equipment

- 1. Park vehicles outside the Site boundaries.
- 2. During the pre-work safety meeting, the SSO will provide the following information:
  - A. a description of the Site and known problem areas
  - B. the level of protection required
  - C. emergency medical information
  - D. the locations of the first aid kit and fire extinguisher
- 3. Use the nearest lavatory.
- 4. Lay out and check safety gear.
- 5. Check and don Level D PPE.
- 6. For work in Level C PPE, put on safety gear in the following order:
  - A. Coveralls
  - B. Hearing Protection (if required)
  - C. Gloves (inner and outer)
  - D. Steel-toed work boots
  - E. Connect suit and boots with tape
  - F. Outer booties, if used
  - G. Air purifying respirators (APRs), if required
  - H. Eye protection (if using a ½ Face APR
  - I. Hard hat

7. For work in Level C PPE, put on APRs as follows:

- A. Inspect.
  - (1) Inspect before each use to ensure that they have been cleaned adequately.
  - (2) Check material conditions for signs of pliability, deterioration, or distortion.
  - (3) Examine cartridges and ensure that they are the correct type for the intended use, that the expiration date has not passed, and that they have not been opened or used previously.
  - (4) Check face shields for cracks or fogginess.

- B. Loosen all harness strap adjustments.
- C. Place chin in chin cup and draw back evenly on strap adjustments the two bottom straps first, then the two top straps, and the center top strap last.
- D. Check that the respirator is centered evenly on the face and that the straps are not uncomfortably tight.
- E. Check for leaks or proper facial seals.
  - (1) To conduct a negative-pressure test, close the inlet part with the palm of the hand so it does not pass air, and gently inhale for about 10 seconds. Any inward rush of air indicates a poor fit. Note that a leaking facepiece may be drawn tightly to the face to form a good seal, giving a false indication of adequate fit.
  - (2) To conduct a positive-pressure test, gently exhale while covering the exhalation valve to ensure that a positive pressure can be built up. Failure to build a positive pressure indicates a poor fit.
- 8. Put on the rest of the gear in the following order:
  - A. Raise hood
  - B. Hard hat, if necessary
  - C. Surgical gloves
  - D. Outer gloves
  - E. Connect gloves and suit with tape
- 9. Select a buddy to act as a safety backup.
- 10. Check your buddy's equipment and have your buddy check yours for rips, tears, or malfunctions. Pay special attention to respirators, making sure that seals are good and that cartridges are securely in place.
- 11. If any equipment or gear gets damaged or if your suit tears badly, GO BACK.
- 12. If you experience physical discomfort, breathing difficulties, light-headedness, dizziness, or other abnormalities, GO BACK.
- 13. When you return, have your buddy check for external accumulation of contamination and remove it. Also check gear for damage.
- 14. Decontamination will be performed in steps as follows (as appropriate for the PPE being utilized):

Step 1 – Segregated Equipment Drop: Deposit equipment used on-site (tools, sampling devices and containers, monitoring instruments, clipboards, etc.) in different containers with plastic liners. Each may be contaminated to a different degree. Segregation at the drop reduces the probability of cross-contamination. This equipment may be reused if properly decontaminated.

Equipment: various sizes of containers/plastic drop cloths

Step 2 – Boot Cover and Outer Glove Wash and Rinse: (Optional – will be used at the Site Safety Officer's discretion.)

Equipment: spray bottle/container with nozzle/ two wash basins or tubs/scrub brush/water/Liqui-nox non-phosphate soap solution (1%)

**Step 3 – Tape Removal:** Remove tape around boots and gloves, and deposit in container with plastic liner. Remove boot covers, then outer gloves, and place them in the container.

Equipment: container (30-50 gallons)/ plastic liners/ folding chairs

Step 4 – Safety Boot Wash and Rinse: (Optional - will be used at discretion of field team members.)

Equipment: two wash basins or tubs/scrub brush/water/ Liqui-nox solution (1%)

Step 5 – Protective Coveralls Removal: With the assistance of a helper, remove protective coveralls. Deposit in container with plastic liner.

Equipment: container (30-50 gallons)/folding chairs/plastic liners

Step 6 – Respirator Removal: Remove facepiece. Avoid touching face with gloves. If work is completed for the day, discard cartridges in lined container, and wash and rinse respirator.

Equipment: container (30-50 gallons)/ plastic liners

Step 7 - Inner Glove Removal: Remove inner gloves and deposit in container with plastic liner.

Equipment: container (20-30 gallons)/ plastic liners

15. Respirators will be cleaned daily by hand washing with MSA cleaner-sanitizer solution followed by a thorough rinse and air drying. NEVER ALLOW A RESPIRATOR TO DRY WITH THE STRAPS PLACED FORWARD ACROSS THE FACESHIELD BECAUSE THIS MAY CAUSE CHANGES IN THE FACE-TO-RESPIRATOR SEAL SURFACE. The specific procedures to be employed are as follows:

A. Remove all cartridges (canisters) and filters plus gaskets and seals not permanently affixed to their seats.

B. Loosen harness adjustment straps.

C. Remove exhalation valve cover.

- D. Remove inhalation and exhalation valves.
- E. Remove protective face-shield cover.
- F. Wash facepiece in MSA cleaner/sanitizer powder mixed with warm water, preferably at a temperature of 120 F. Wash components separately from facepiece. Heavy soil may be removed from the facepiece surface using a medium-soft hand brush.
- G. Remove all parts from the wash solution, and rinse twice in clean, warm water.
- H. Air-dry all parts in a designated clean area.
- 1. Pat facepieces, valves, and seats to remove any remaining soap residue, water, or other foreign material with a clean, damp, lint-free cloth.
- J. Reassemble respirator.
- K. Place respirator in a plastic bag and the respirator box or otherwise store the respirator to prevent exposure to dust, moisture, sunlight, damaging chemicals, extreme temperatures, and impact.
- 16. Investigation-derived waste material will be handled as follows:
  - A. Used PPE and disposable equipment will be double bagged and placed in a municipal refuse dumpster on Site. These wastes are not considered hazardous and can be sent to a municipal landfill. Any PPE and disposable equipment that is to be disposed of which can still be reused will be rendered inoperable before disposal in the refuse dumpster.
  - B. Wash and rinse waters from personal and equipment decontamination will be poured onto the ground or into a storm drain.
  - C. Soil cuttings generated during the subsurface sampling will be placed back into the soil borings from which the samples were obtained. Any remaining soil cuttings will be spread around the sampling location.

## Appendix E Heat Stress and Heat Stress Monitoring

#### Appendix E: Heat Stress and Heat Stress Monitoring

Heat is one of the most common (and potentially serious) illnesses at hazardous waste Sites where PPE is worn; therefore, regular monitoring and other preventive precautions are vital. Shelter from the sun will be provided during rest periods. Below is a list of the signs and symptoms of heat stress. Initial work schedules will be approximately 90 minutes of work followed by 15 minutes of rest. Work intervals will be adjusted to shorter periods based on the assessment of the SSO. Monitoring for heat stress will be conducted by visual observation by the individual team members.

#### Signs and Symptoms of Heat Stress

- Heat rash may result from continuous exposure to heat or humid air.
- Heat cramps are caused by heavy sweating with inadequate electrolyte replacement. Signs and symptoms include:
  - o muscle spasms
  - o pain in the hands, feet, and abdomen
- Heat exhaustion occurs from increased stress on various body organs, including inadequate blood circulation caused by cardiovascular insufficiency or dehydration. Signs and symptoms include:
  - o pale, cool, moist skin
  - heavy sweating
  - o dizziness
  - o nausea
  - o fainting
- Heat stroke is the most serious form of heat stress. Temperature regulation fails, and the body temperature rises to critical levels. Immediate action must be taken to cool the body before serious injury and death occur. Competent medical help must be obtained. Signs and symptoms include:
  - o red, hot, usually dry skin
  - lack of or reduced perspiration
  - o **nausea**
  - dizziness and confusion
  - strong, rapid pulse
  - o coma

First-aid remedies for heat stress and heat stroke includes removing the worker to a cool place, providing cool water or a commercial sport drink, loosen tight clothing, and call for an ambulance if victim vomits or starts to lose consciousness.