November 1, 2012

## RECEIVED

10:29 am, Nov 06, 2012

Alameda County Environmental Health

Mr. Paresh Khatri Alameda County Health Care Services Agency 1131 Harbor Bay Parkway Alameda, CA 9502-6577

Subject: Soil Vapor Extraction Remediation Startup Report Crow Canyon Dry Cleaners 7272 San Ramon Road Dublin, CA RO# 000283

Dear Mr. Khatri:

This enclosed report has been prepared by Endpoint Consulting, Inc. on behalf of the Burrows Company, Dwight & Carleton Perry, Gabriel H. Chui & Lai H. Trust, the Lee Family, Nam Sun and Seung Hee Park, and the Raphel-Roessler Retail Group.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge. If you have any questions, please contact Mr. Mehrdad Javaher. of Endpoint at 415-706-8935.

Sincerely,

anus Roen

James Roessler Raphel-Roessler Retail Group



October 29, 2012

Mr. Paresh Khatri Hazardous Materials Specialist Alameda County Health Care Services Agency 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

Subject: Soil Vapor Extraction Remediation Startup Report Crow Canyon Dry Cleaners 7272 San Ramon Road, Dublin, California (RO # 0002863)

Dear Mr. Khatri,

Endpoint Consulting, Inc. (Endpoint) is pleased to present this letter report summarizing the installation, startup, and operation and maintenance (O&M) activities associated with remediation of tetrachloroethene (PCE) impacts in the vadose zone beneath the above-referenced site. Remediation activities featured soil vapor extraction (SVE) as outlined in the Corrective Action Plan (CAP) for the site, approved by the Alameda County Health Care Service Agency (ACHCSA).

The site is located in a suite within a commercial building in the Lamps Plus Shopping Center located on the west side of San Ramon Road, within a mixed residential/commercial area of Dublin, CA (see Figure 1). Historical resources and site reconnaissance have revealed that the unit occupied by the site (i.e, 7272 San Ramon Road) has been occupied by a dry-cleaning facility since 1988. The dry-cleaning and solvent storage areas were located in the back of the building, with PCE used as the cleaning solvent until 2004; current dry cleaning operations do not use any chlorinated solvents.

Immediately adjacent (to the south) to the suite housing the dry cleaners is an occupied commercial/retail space. The suite next to this commercial/retail space is a Montessori School serving preschool children. As outlined in the CAP, the objectives of implementing SVE remediation at the site included the reduction of PCE concentrations in soil vapor across the site, with particular emphasis on minimizing the potential for PCE vapor migration toward the Montessori School. At the time the CAP was prepared, the ownership at the Montessori School were in the process of securing alternate space to support a permanent move of the school from the existing location. Hence, the CAP outlined two sets of cleanup goals; one corresponding to residential use of the property (410 ug/m<sup>3</sup>), and the second corresponding to commercial use of the property (1,400 ug/m<sup>3</sup>) based on the intended departure of the Montessori School from the adjacent suite. At the time of this writing, Montessori School is in the process of moving, with the estimated date of complete move-out by February 2013 (Personal communication with Montessori School).



As required by the final CAP for the site, an SVE system was permitted and installed at the site on June 21, 2012, with daily operations beginning on June 28, 2012 and continuing at the date of this report. On October 2, 2012, the SVE system operations were terminated in support of collection of vapor samples from key site wells to assess the benefits of SVE operations. This sampling was conducted on October 9, 2012, after which the SVE system was restarted and continues to operate today. This report summarizes the startup of the SVE operations, the results of the first four months of O&M activities, and the results of pre- and post-SVE startup vapor sampling referenced above.

## **SVE SYSTEM STARTUP**

A mobile SVE system provided by Endpoint was installed at the site on June 21, 2012. Before the operation of the SVE system, an air permit was obtained from the Bay Area Air Quality Management District ([BAAQMD] (Plant No. 19783, Permit No. 24021). A permit to install the system was also obtained from the City of Dublin (#BLDG-2012-00299). Existing vapor extraction wells VE-1S, VE-1D, VE-2S, VE-2D, VE-3S, and VE-3D were connected to the SVE system (see Figure 1).

## **Baseline Sampling**

Prior to system operation on June 28, 2012, a baseline round of vapor samples were collected from key site monitoring wells on June 27, 2012. Access to the Montessori School was not granted by the operators of the school, so no baseline samples were collected from monitoring wells within the school. Table 1 summarizes the results of historical samples collected from existing monitoring and vapor extraction wells onsite, including samples collected during SVE activities implemented as an interim remedial action (IRA) during 2009, subsequent semi-annual sampling required by the ACHCSA from 2009 through 2011, and the baseline and post-SVE startup samples collected in 2012.

The laboratory report for the June 27, 2012 baseline sampling is included as Appendix A. As indicated in Table 1, the baseline sampling conducted in June 2012 prior to initiation of SVE operations indicated that PCE concentrations ranged from <500 ug/m3 to 14,000 ug/m3. Source area vapor extraction wells VE-1S and VE-2S (see Figure 1) remained the highest concentrated for PCE (12,000 and 14,000 ug/m3, respectively), while sub-slab monitoring well VM-9SS located adjacent to the former dry cleaning machine also reported an elevated PCE concentration (7,200 ug/m3). In the absence of samples from the wells inside the Montessori School, well VM-4SS, located in the commercial space between the dry cleaner and the Montessori School reported a concentration of 2,100 ug/m3 (see Table 1). The concentrations reported in the June 2012 monitoring event generally approximated those detected in the most recent event (i.e, January 2011 monitoring event-see Table 1) prior to the June 2012 monitoring event.

## **SVE** Operations

Following obtainment of the air permit from the BAAQMD, fulltime SVE operations were initiated on June 28, 2012. With the exception of the system termination in support of the vapor sampling on October 2, 2012 and some minor system terminations due to maintenance activities, the system has been in full operation through the date of this report.



Throughout this time, weekly O&M activities were conducted per the air permit, reducing to bi-weekly events as approved by the BAAQMD. During O&M events, vapor flow rates and the vacuum extracted from the vapor extraction wells were recorded; field sheets summarizing the collected information are included as Appendix B, while Tables 2 and 3 summarize operational data for the SVE system collected during each O&M event.

As indicated in Table 2, between June 28<sup>th</sup>, 2012 and October 23<sup>rd</sup>, 2012, SVE was conducted for approximately 2,365 hours. Vacuum rates induced by the system ranged from 5.5 to 22.5 inches of water (see Table 2), while system flow rates ranged from 80.5 scfm to 129.9 scfm (see Table 3). To maximize system efficiency, during select O&M events, system operation was shifted between shallow extraction wells and deep extraction wells, allowing for vapor extraction from both sub-slab and deeper depths.

The individual well vacuum readings throughout the O&M activities are summarized on the field sheets in Appendix B, while select readings summarized in Table 4. As shown in this table, vacuum readings in monitoring wells across the site were recorded at 0 to 0.62 inches of water. Monitoring well VM-8 located adjacent to a sewer line in the front parking lot showed the highest vacuum, due likely to preferential flow through the sewer line backfill. Closer to the extraction wells, VM-4SS (15 feet away from VE-3S) showed vacuums of 0.118 to 0.41 inches of water. Monitoring wells VM-1S and MV-1D, also located approximately 15 feet away from extraction wells VE-1S and VE-3S yielded vacuum responses above 0.1 inches of water. Wells inside the Montessori School, located 30 feet and more from extraction wells, showed vacuum levels below 0.1 inches of water. Based on this information the radius of influence of the SVE system is estimated at 15 to 20 feet.

Table 3 summarizes estimates of mass removal rates during each O&M event, in addition to an estimate of the cumulative PCE mass removed over time. As indicated in the table, mass removal rates remained generally low, ranging from less than 0.1 to 0.6 pounds of PCE removed per day. Through October 23<sup>rd</sup>, the cumulative PCE mass removed approximates 10.6 pounds. This marks a significant increase in the total mass removed relative to the 0.1 pound removed during two months of IRA activities in 2009.

## Post-SVE Vapor Sampling

As previously indicated, on October 2, 2012, the SVE system was terminated for approximately 7 days prior to collection of a round of vapor samples from select key monitoring and extraction wells at the site. The laboratory analytical report for this sampling is included as Appendix C, with results summarized in Table 1. As indicated in the table, PCE concentrations in all sampled wells after approximately 3.5 months of SVE operation were below both residential and commercial cleanup goals adopted in the final CAP.

The highest PCE concentrations remains in sub-slab monitoring well VMP-9SS (280, ug/m<sup>3</sup>), located in the immediate vicinity of the former dry cleaning machine; however, the concentration in this well reduced from 7.200 ug/m<sup>3</sup> prior to initiation of SVE operations, to 280 ug/m<sup>3</sup> some 4 months after SVE operation. Significant reductions were also observed in vapor extraction wells VE-1S and VE-2S, including reductions from 12,000 ug/m<sup>3</sup> to 41 ug/m<sup>3</sup> (for VE-1S) and from 14,000 ug/m<sup>3</sup> to 35 ug/m<sup>3</sup> (for VE-2s). Importantly, sub-slab monitoring wells VM-5SS (68 ug/m<sup>3</sup>) and VM-6SS (110 ug/m<sup>3</sup>) located within the Montessori School yielded PCE concentrations well below both the residential (410 ug/m<sup>3</sup>) and commercial (1,400 ug/m<sup>3</sup>)



cleanup goal established for the site, and well below previously reported levels in 2011 (see Table 1).

## CONCLUSIONS AND RECOMMENDATIONS

Per the ACHCSA-approved CAP for the site, an SVE system has been successfully installed and operated at the site. Prior to initiation of SVE operations on June 28, 2012, baseline vapor sampling conducted on June 27, 2012 indicates that PCE concentrations at the site remained generally similar to those detected 17 months prior in January 2011; however, these levels reflected a rebound at several well locations some 34 months after termination of the original SVE operations implemented for two months as an IRA in 2009.

Following startup of full-scale SVE operations in July 2012, an estimated 10.5 pounds of PCE mass has been removed over a 4-month period, marking a significant increase in mass removal relative to the 0.1 pounds of total PCE mass removed in two months of IRA activities in 2009. This increased mass removal has also resulted in reduced PCE concentrations in key monitoring and vapor extraction wells across the site, with all detections of PCE in October 2012 occurring well below the residential and commercial cleanup goals established for the site within the CAP.

Based on the above observations, Endpoint recommends continuing SVE operations over the next three to five months to maximize PCE mass removal and minimize the potential for post-SVE concentration rebound such as that previously observed following termination of IRA SVE activities in 2009. If necessary and to help maximize operation efficiency of the SVE system, Endpoint proposes to operate the SVE system under a pulse scenario, where the system may be operated for periods of two to four weeks, followed by system shutdown for two to four weeks.

Following the above-referenced time frame for completion of SVE activities, Endpoint plans to shutdown SVE operations, collect another round of vapor samples across the site, and based on those results, transition the site into semi-annual monitoring for one year. Endpoint plans to document the results of the above-referenced SVE operations and related monitoring in a separate report for submittal to the ACHCSA. If the results of the semi-annual monitoring indicate PCE concentrations remain below the relevant cleanup goal, then a formal request for site closure will be submitted to the ACHCSA.

## CLOSING

As always, Endpoint appreciates your assistance with this project. If you have any questions, please contact Mehrdad Javaherian at 415-706-8935, or at <u>mehrdad@endpoint-inc.com</u>.

Sincerely, **Endpoint Consulting, Inc.** 

Maaher

Mehrdad Javaherian





## Attachments:

Table 1 - PCE Analytical Results in Soil Vapor Table 2 – Summary of SVE Field Monitoring Data Table 3- Summary of SVE Operation

Figure 1 – Vapor Extraction and Monitoring Well Locations

- Appendix A Laboratory Analytical Report for June 2012 Baseline Vapor Sampling
- Appendix B Field Data Sheets

Appendix C – Laboratory Analytical Report for October 2012 Vapor Sampling

Tables

# Table 1 PCE Vapor Concentrations Vapor Monitoring and Extraction Well Locations Crow Canyon Dry Clenaers 7272 San Ramon Road, Dublin, California

				PCE Concentrati	ions (ug/m³)			
Well I.D.	7/18/2009 to 7/30/2009 Baseline-Purge Test-SVE Shakedown Sampling Events	9/1/2009 1 Month after operation of SVE system	9/28/2009 2 Months after operation of SVE system	11/4/09 ~ 1 month after shutdown of SVE system	8/26/10 ~ 11 months after shutdown of SVE system	1/12/11 ~ 17 months after shutdown of SVE system	6/27/2012* ~ 34 months after shutdown of SVE system	10/9/2012 ~ 3.5 months afte SVE restart**
VE-1S	1,200	23	<14	970	1,100	19,000	12,000	41
VE-1D	420	300	<14	770	NS	NS	4,500	NS
VE-2S	5,900	<14	200	500	3,400	13,000	14,000	35
VE-2D	1,100	<14	<14	350	NS	NS	5,100	NS
VE-3S	2,200	30	38	<14	870	260	<500	NS
VE-3D	3,800	24	51	<14	NS	NS	790	NS
VM-1S	<73	-	<14	20	2,600	580	1,200	NS
VM-1D	160	-	16	140	NS	NS	520	NS
VM-3S	8,100	-	55	81	NS	NS	NS	NS
VM-3D	34J	-	<14	300	NS	NS	NS	NS
VM-4S	10,000	-	180	310	1,100	1,100	2,100	22
VM-5SS	-	-	-	-	1,300	1,100	NS	68
VM-6SS	-	-	-	-	650	390	NS	110
VM-2SS	-	-	-	-	28	<14	NS	NS
VM-7	-	-	-	-	310	<14	240	NS
VM-8	-	-	-	-	1,300	640	820	NS
VM-9SS	-	-	-	-	11,000	14,000	7,200	280
VM-10	-	-	-	-	450	210	NS	NS
		ESLs Com	Ls Residential Exposur Imercial/Industrial Lar creening Level for Scho		:/m <sup>3</sup>			

\* Baseline Sampling prior to start of SVE Operations on June 28, 2012

\*\* system shutdown one week before sampling

## Table 2 - Summary of SVE Field Monitoring Data

Crow Canyon Cleaners 7272 San Ramon Road Dublin, CA 94568

	Hour			Wellhead I	nfluent Mon	itoring Da	ıta		Midpoint Data	Effluent Monitoring Data								
Date	Meter Reading	Pipe Dia. (in.)	Area (in. <sup>2</sup> )	dP (in. H <sub>2</sub> O)	Vacuum (in. H <sub>2</sub> O)	Temp. (°F)	Velocity (fpm)	VOC (ppmv)	VOC (ppmv)	Pipe Dia. (in.)	Area (in. <sup>2</sup> )	dP (in. H <sub>2</sub> O)	Temp. (°F)	Velocity (fpm)	VOC (ppmv)			
06-28-12	0.0	3	0.05	0.170	10	65	1,666	9.3	0.0	2	0.02	1.180	65	4,334	0.0			
07-03-12	120.0	3	0.05	0.220	6	65	1,885	0.0	0.0	2	0.02	1.250	65	4,461	0.0			
07-13-12	362.7	3	0.05	0.200	5.5	62	1,791	25.0	0.0	2	0.02	1.140	64	4,256	0.0			
07-19-12	511.4	3	0.05	0.460	10	86	2,794	1.0	0.0	2	0.02	2.160	99	6,051	0.0			
07-26-12	674.0	3	0.05	0.300	10	67	2,217	0.0	0.0	2	0.02	2.000	72	5,680	0.0			
07-27-12	701.0	3	0.05	0.300	10	71	2,225	0.0	0.0	2	0.02	2.000	72	5,680	0.0			
08-02-12	704.0	3	0.05	0.300	11	64	2,213	6.0	0.0	2	0.02	2.000	95	5,802	0.0			
08-08-12	885.0	3	0.05	0.370	12	64	2,461	3.0	0.0	2	0.02	2.000	95	5,802	0.0			
08-16-12	1057.2	3	0.05	0.250	30	76	2,094	2.0	0.0	2	0.02	1.100	89	4,279	0.0			
08-29-12	1369.0	3	0.05	0.390	22.5	65	2,564	0.0	0.0	2	0.02	2.070	87	5,860	0.0			
09-13-12	1725.0	3	0.05	0.310	9.7	64	2,246	0.0	0.0	2	0.02	2.000	89	5,770	0.0			
09-20-12	1727.0	3	0.05	0.275	22	76	2,174	1.0	0.0	2	0.02	1.580	85	5,110	0.0			
10-09-12	2039.0	3	0.05	0.200	20	72	1,842	4.2	0.0	2	0.02	1.550	93	5,098	0.0			
10-23-12	2365.6	3	0.05	0.200	22	60	1,826	2.8	0.0	2	0.02	1.570	93	5,131	0.0			

## Explanation:

<sup>o</sup>F = degree Fahrenheit dia. = diameter dP = differential pressure in. = inches in.<sup>2</sup> = square inches

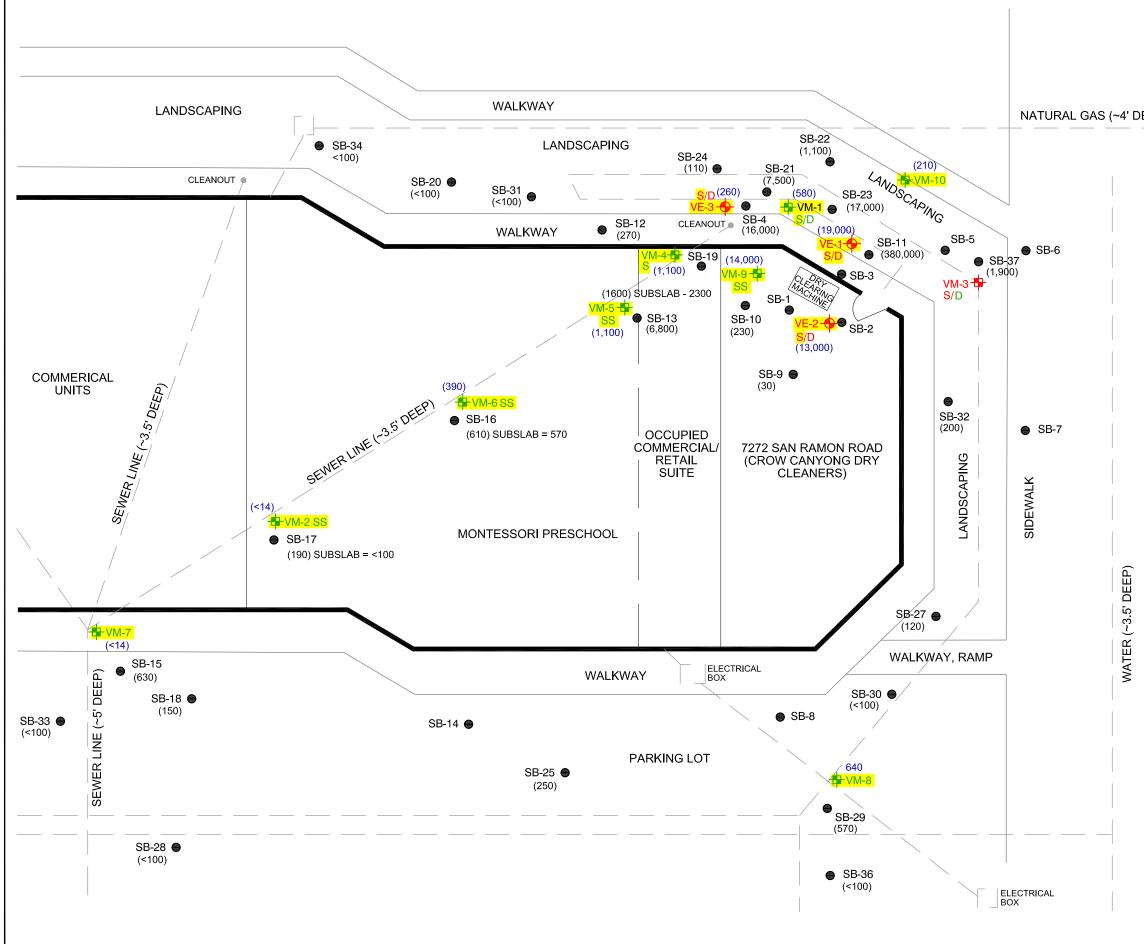
in.  $H_2O$  = inches of water column

fpm = feet per minute Temp. = temperature mg/m<sup>3</sup> = milligrams per cubic meter ppmv = parts per million by volume VOC = Volitile Organic Compounds

# Table 3 - Summary of SVE OperationCrow Canyon Cleaners7272 San Ramon RoadDublin, CA 94568

	Hour			Wellhead Influent			Effluent	
Date	Meter	Flow Rate	VOC	Mass Removal Rate	Cumulative Mass Removed	Flow Rate	VOC	VOC
	Reading	(scfm)	(ppmv)	(lbs/day)	(lbs)	(scfm)	(ppmv)	(lbs/day)
06-28-12	0.0	80.5	9.3	0	0	95.5	0.0	0.0
07-03-12	120.0	92.1	0.0	0.0	0.5	98.2	0.0	0.0
07-13-12	362.7	88.1	25.0	0.6	1.6	93.9	0.0	0.0
07-19-12	511.4	129.9	1.0	0.0	3.6	125.1	0.0	0.0
07-26-12	674.0	106.8	0.0	0.0	5.9	123.5	0.0	0.0
07-27-12	701.0	106.4	0.0	0.0	6.0	123.5	0.00	0.00
08-02-12	704.0	106.9	6.0	0.2	6.0	120.9	0.00	0.00
08-08-12	885.0	118.6	3.0	0.1	6.7	120.9	0.00	0.00
08-16-12	1057.2	94.2	2.0	0.1	7.9	90.1	0.00	0.00
08-29-12	1369.0	120.0	0.0	0.0	9.0	123.9	0.00	0.00
09-13-12	1725.0	108.9	0.0	0.0	9.4	121.5	0.00	0.00
09-20-12	1727.0	99.8	1.0	0.0	9.4	108.4	0.00	0.00
10-09-12	2039.0	85.7	4.2	0.1	9.6	106.6	0.00	0.00
10-23-12	2365.6	86.4	2.8	0.1	10.6	107.3	0.00	0.00

Figure



EEP)		
		LEGEND:
	VM-4 🕂	Vapor Monitoring Well
VN	1-2SS 🖶	Sub-Slab Vapor Monitoring Well (2010)
	VE-1 🔶	Soil Vapor Extraction Well Locations
	SB-1 \varTheta	Historical Soil Vapor Boring Locations (2006- 2008)
	S/D	Shallow Well Screen/Deep Well Screen
	SS	Sub-Slab Well Screen
		Utility Line
	(1,100)	PCE Concentration ( $\mu$ g/m <sup>3</sup> ) in soil vapor (2011)
	(6,800)	PCE Concentration ( $\mu$ g/m <sup>3</sup> ) in soil vapor (2008)
		Wells requiring monitoring per Almeda County
NATURAL GAS (~4' DEEP)		$ \begin{array}{c}                                     $
		ence: Base map from drawing titled "PCE entrations in Soil Vapor", by Ceres, dated April 2008.

VAPOR MONITORING LOCATIONS

CROW CANYON DRY CLEANERS 7272 SAN RAMON ROAD DUBLIN, CALIFORNIA

,		
Endpoint.	Date: 9/18/2011	Figure: <b>1</b>
Strategy. Science. Sustainability.		

## Appendix A

Laboratory Analytical Report for June 2012 Baseline Vapor Sampling



McCampbell Analytical, Inc. "When Quality Counts"

# **Analytical Report**

Endpoint	Client Project ID: TM Dublin; Crow Canyon	Date Sampled: 06/27/12	
98 Battery Street, Suite 200		Date Received: 06/28/12	
50 Duitery Street, Suite 200	Client Contact: Mehrdad Javaher	Date Reported: 07/09/12	
San Francisco, CA 94111	Client P.O.:	Date Completed: 07/09/12	

## WorkOrder: 1206836

July 09, 2012

## Dear Mehrdad:

Enclosed within are:

- 1) The results of the 12 analyzed samples from your project: TM Dublin; Crow Canyon,
- 2) QC data for the above samples, and
- 3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius Laboratory Manager McCampbell Analytical, Inc.

The analytical results relate only to the items tested.

1206836

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	SAN	RAMO	A	101	Other:						
Sampler Signature:	4	Do	4		Notes:						
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(Location)			Canister SN#	Kit SN#	Analysis Requested	Indoor	Soil			ssure/Vacu	
	Date	Time				Air	Gas	Initial	Final	Receipt	Final (psi)
VM-10	6271	12/17	12 4753-623	981	TO-15 8010 only		X	31	5		
Vm-955	1	1241	2711	986	1			30	5		
VE-1D		1321	3634-570	983				30	5		
Vm-45		1348		989				30	5		
VE-15		1417	02587	987	+ Ke			30	5		
Vm-7		150	4743	982				28	5		
Vm-15		1600	3645-561	985				30	5		
VE-3D		1624	4616-881	3167-775				30	5		
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1206836

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Tele: (415) 706.	892	35	Fax: ( )								
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Project #: TmDu Project Location: 727	2	SiAN	Roman Rd	Dublin	Other:						
Sampler Signature:	11	K	A	202.00	Notes:						
Field Sample ID	Colle	ection	Canister SN#	Manifold / Sampler							
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	Date	Time				Air	Gas	Initial	Final	Receipt	Final (psi)
Vm-8	6/27	1705			TO15 8010 0mg		X	30	+5		
VE-ZD		1.804	4766-984	984	1			30	-5		
JE-25		183	3656	988			_	30	-5		
Relighuished By:	Date:	Time:	Received By:	1 20							
Relinquished By:	28/12 Date:	112 Time:		Vall	Temp (°C) : V Equipment Condition:	Work Order	· #:				
Relinquished By:	Date:	Time:	Received By:		Shipped Via:						

## McCampbell Analytical, Inc.



Report to:

1534 Willow Pass Rd Pittsburg, CA 94565-1701 (925) 252

# **CHAIN-OF-CUSTODY RECORD**

. . . . . . .

Page 1 of 1

(925) 252-9262				WorkOr	der: 1206836	Client	Code: EPB		
	WaterTrax	WriteOn	EDF	Excel	EQuIS	🖌 Email	HardCopy	ThirdParty	☐ J-flag
port to:				Bill	to:		Req	uested TAT:	5 days
Mehrdad Javaher	Email:	mehrdad@endpoi	int-inc.com		Accounts Paya	able			
Endpoint	cc:				Endpoint				
98 Battery Street, Suite 200	PO:				98 Battery Stre	et, Suite 200	Dat	e Received:	06/28/2012
San Francisco, CA 94111	ProjectNo:	TM Dublin; Crow	Canyon		San Francisco	, CA 94111	Dat	e Printed:	06/28/2012
415-706-8935 FAX:									

.

				Γ				Re	queste	d Tests	(See leg	end bel	ow)			
Lab ID	Client ID	Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12
1206836-001	VM-1D	Soil Gas	6/27/2012 11:22			A										
1206836-002	VM-9SS	Soil Gas	6/27/2012 12:41			Α										
1206836-003	VE-1D	Soil Gas	6/27/2012 13:21			Α										
1206836-004	VM-4S	Soil Gas	6/27/2012 13:48			Α										
1206836-005	VE-1S	Soil Gas	6/27/2012 14:17		А	А										
1206836-006	VM-7	Soil Gas	6/27/2012 15:11			А										
1206836-007	VM-1S	Soil Gas	6/27/2012 16:00			А										
1206836-008	VE-3D	Soil Gas	6/27/2012 16:24			А										
1206836-009	VE-3S	Soil Gas	6/27/2012 16:36			Α										
1206836-010	VM-8	Soil Gas	6/27/2012 17:05			А										
1206836-011	VE-2D	Soil Gas	6/27/2012 18:04			Α										
1206836-012	VE-2S	Soil Gas	6/27/2012 18:13			Α										

#### Test Legend:

1	HELIUM_SOILGAS
6	
11	

TO15-8010_SOIL(UG/M3)

3	
8	

4 9

5	
10	

Prepared by: Melissa Valles

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A, 009A, 010A, 011A, 012A contain testgroup.

2

7

12

### **Comments:**

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



## Sample Receipt Checklist

Client Name:	Endpoint				Date a	nd Time Received:	6/28/2012 11:46:09 AM
Project Name:	TM Dublin; Crow Ca	inyon			LogIn F	Reviewed by:	Melissa Valles
WorkOrder N°:	1206836	Matrix: Soil Gas			Carrier	: <u>Client Drop-In</u>	
		<u>Cha</u>	in of Cu	ustody (COC	) Informati	ion	
Chain of custody	present?		Yes		No 🗌		
Chain of custody	signed when relinquis	shed and received?	Yes	✓	No		
Chain of custody	agrees with sample la	abels?	Yes		No 🗌		
Sample IDs note	d by Client on COC?		Yes	✓	No 🗌		
Date and Time of	f collection noted by C	lient on COC?	Yes	✓	No 🗌		
Sampler's name	noted on COC?		Yes	✓	No		
			Sample	e Receipt Inf	ormation		
Custody seals int	tact on shipping conta	iner/cooler?	Yes		No 🗌		NA 🗹
Shipping contain	er/cooler in good cond	lition?	Yes		No 🗌		
Samples in prope	er containers/bottles?		Yes		No 🗌		
Sample containe	rs intact?		Yes	✓	No 🗌		
Sufficient sample	e volume for indicated	test?	Yes		No 🗌		
		Sample Pres	servatio	n and Hold	<u>Time (HT) l</u>	Information	
All samples rece	ived within holding tim	e?	Yes	✓	No 🗌		
Container/Temp	Blank temperature		Coole	er Temp:			NA 🖌
Water - VOA vial	s have zero headspac	e / no bubbles?	Yes		No 🗌	No VOA vials subm	itted 🗹
Sample labels ch	necked for correct pres	servation?	Yes		No		
Metal - pH accep	table upon receipt (pł	l<2)?	Yes		No 🗌		NA 🗹
Samples Receive	ed on Ice?		Yes		No 🗹		

\* NOTE: If the "No" box is checked, see comments below.

Comments:

\_\_\_\_\_

\_\_\_\_\_

	McCampbell A "When Quality	nalyticc y Counts''	il <u>, Inc.</u>	Toll Fr	1534 Willow Pass Road, Pittsburg, CA 94565-1701 Il Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 //www.mccampbell.com / E-mail: main@mccampbell.com						
Endp		Client		TM Dublin; C	row	Date Sampled: 06/27/2	12				
00 D.	them. Shared Strike 200	Canyor	1			Date Received: 06/28/12					
90 B	attery Street, Suite 200	Client	Contact: Me	ehrdad Javaher		Date Extracted: 07/05/	12				
San F	Francisco, CA 94111	Client	P.O.:			Date Analyzed: 07/05/	12				
Extracti	on method: ASTM D 1946-90	<u>.</u>	Analy	Helium* ytical methods: AST	ГМ D 194	46-90	Work	Order: 12	206836		
Lab ID	Client ID	Matrix	Initial Pressure	e Final Pressure		Helium	DF	% SS	Comments		
005A	VE-1S	Soil Gas	12.27	24.44		0.0064	1	N/A			
	Reporting Limit for DF =1; ND means not detected at or	W	psia	psia		NA			NA		
	above the reporting limit	Soil Vapor	psia	psia		0.0025			%		
%SS =	samples are reported in %. Percent Recovery of Surrogate Standard ilution Factor	1									

Angela Rydelius, Lab Manager

McCampbell A "When Quad		Inc.	Toll Free Telepho	Pass Road, Pittsburg, CA ne: (877) 252-9262 / Fax pbell.com / E-mail: main(	: (925) 252-9269	n
Endpoint		oject ID: TM I	Dublin; Crow	Date Sampled:	06/27/12	
	Canyon			Date Received:	06/28/12	
98 Battery Street, Suite 200	Client Co	ontact: Mehrdad	l Javaher	Date Extracted:	06/28/12-0	6/29/12
San Francisco, CA 94111	Client P.			Date Analyzed:		
H Extraction Method: TO15	-	atile Organic C	ompounds in µg	/m <sup>3*</sup>	Work Order:	1206836
Lab ID	1206836-001A	1206836-002A	1206836-004A	1206836-006A		
Client ID	VM-1D	VM-9SS	VM-4S	VM-7	Reporting DF	
Matrix	Soil Gas	Soil Gas	Soil Gas	Soil Gas	_	
DF	1	1	1	1		
Initial Pressure (psia)	11.82	12.26	12.14	12.01	Soil Gas	W
Final Pressure (psia)	23.54	24.42	24.19	23.94	1	
Compound	20.07		ntration	23.7T	µg/m³	ug/L
Bromodichloromethane	ND	ND	ND	ND	14	
Bromodichloromethane Bromoform	ND ND	ND ND	ND ND	ND ND	21	NA NA
Bromomethane	ND	ND	ND	ND	7.9	NA
Carbon Tetrachloride	ND	ND	ND	ND	13	NA
Chlorobenzene	ND	ND	ND	ND	9.4	NA
Chloroethane	ND	ND	ND	ND	5.4	NA
Chloroform	ND	ND	ND	ND	9.9	NA
Chloromethane	ND	ND	ND	ND	4.2	NA
Dibromochloromethane	ND	ND	ND	ND	17	NA
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	16	NA
1,2-Dichlorobenzene	ND	ND	ND	ND	12	NA
1,3-Dichlorobenzene	ND	ND	ND	ND	12	NA
1,4-Dichlorobenzene	ND	ND	ND	ND	12	NA
Dichlorodifluoromethane	ND	ND	ND	ND	10	NA
1,1-Dichloroethane	ND	ND	ND	ND	8.2	NA
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND	ND	8.2	NA
1,1-Dichloroethene	ND	ND	ND	ND	8.1	NA
cis-1,2-Dichloroethene trans-1.2-Dichloroethene	ND	ND	ND	ND	8.1	NA
1,2-Dichloropropane	ND ND	ND ND	ND ND	ND ND	8.1 9.4	NA NA
cis-1,3-Dichloropropene	ND	ND	ND	ND	9.4	NA
trans-1,3-Dichloropropene	ND	ND	ND	ND	9.2	NA
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ND	ND	14	NA
Freon 113	ND	ND	ND	ND	16	NA
Methylene chloride	ND	ND	ND	ND	7.1	NA
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	14	NA
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	14	NA
Tetrachloroethene	520	7200	2100	240	14	NA
1,2,4-Trichlorobenzene	ND	ND	ND	ND	15	NA
1,1,1-Trichloroethane	ND	ND	ND	ND	11	NA
1,1,2-Trichloroethane	ND	ND	ND	ND	11	NA
Trichloroethene	ND	77	ND	ND	11	NA
Trichlorofluoromethane	ND	ND	ND	ND	11	NA
Vinyl Chloride	ND	ND rogate Recoveries (	ND	ND	5.2	NA
04881.	96	93	93	93	1	
%SS1:	102	93	101	93	1	
04 552.		48		98		
%\$\$2: %\$\$3:	102	104	101	103		

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

# surrogate diluted out of range or surrogate coelutes with another peak.

	-	<u>. Inc.</u>	Toll Free Telepho	Pass Road, Pittsburg, CA ne: (877) 252-9262 / Fax: pbell.com / E-mail: main@	: (925) 252-9269	n		
Endpoint	Client Pr	roject ID: TM I	Dublin; Crow	Date Sampled:	06/27/12			
1	Canyon	5		Date Received: 06/28/12				
98 Battery Street, Suite 200	Client C	ontact: Mehrdad	l Iavaher	Date Extracted:		6/29/12		
San Francisco, CA 94111	Client P.		i savanci	Date Analyzed:				
			omnounda in ua		00/20/12 0	0/27/12		
Extraction Method: TO15	0	allie Organic C alytical Method: TO15	ompounds in µg	/ <b>m</b> <sup>5%</sup>	Work Order:	1206836		
Lab ID	1206836-007A	1206836-010A	1206836-011A	1206836-012A				
Client ID	VM-1S	VM-8	VE-2D	VE-2S	Reporting DF			
Matrix	Soil Gas	Soil Gas	Soil Gas	Soil Gas				
DF	1	1	1	1	0-11-0	***		
Initial Pressure (psia)	11.68	11.91	12.33	12.62	Soil Gas	W		
Final Pressure (psia)	23.26	23.73	24.56	25.14				
Compound		Conce	entration		μg/m³	ug/L		
Bromodichloromethane	ND	ND	ND	ND	14	NA		
Bromoform	ND	ND	ND	ND	21	NA		
Bromomethane	ND	ND	ND	ND	7.9	NA		
Carbon Tetrachloride	ND	ND	ND	ND	13	NA		
Chlorobenzene	ND	ND	ND	ND	9.4	NA		
Chloroethane	ND	ND	ND	ND	5.4	NA		
Chloroform	ND	ND	ND	ND	9.9	NA		
Chloromethane	ND	ND	ND	ND	4.2	NA		
Dibromochloromethane	ND	ND	ND	ND	17	NA		
1,2-Dibromoethane (EDB)	ND ND	ND ND	ND ND	ND ND	16 12	NA NA		
1,2-Dichlorobenzene 1,3-Dichlorobenzene	ND	ND	ND	ND	12	NA		
1,4-Dichlorobenzene	ND	ND	ND	ND	12	NA		
Dichlorodifluoromethane	ND	ND	ND	ND	10	NA		
1,1-Dichloroethane	ND	ND	ND	ND	8.2	NA		
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND	ND	8.2	NA		
1,1-Dichloroethene	ND	ND	ND	ND	8.1	NA		
cis-1,2-Dichloroethene	ND	26	ND	ND	8.1	NA		
trans-1,2-Dichloroethene	ND	ND	ND	ND	8.1	NA		
1,2-Dichloropropane	ND	ND	ND	ND	9.4	NA		
cis-1,3-Dichloropropene	ND	ND	ND	ND	9.2	NA		
trans-1,3-Dichloropropene	ND	ND	ND	ND	9.2	NA		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ND	ND	14	NA		
Freon 113	ND	ND	ND	ND	16	NA		
Methylene chloride 1,1,1,2-Tetrachloroethane	ND ND	ND ND	ND ND	ND ND	7.1	NA NA		
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	14	NA		
Tetrachloroethene	1200	820	5100	14,000	14	NA		
1,2,4-Trichlorobenzene	ND	ND	ND	ND	15	NA		
1,1,1-Trichloroethane	ND	ND	ND	ND	11	NA		
1,1,2-Trichloroethane	ND	ND	ND	ND	11	NA		
Frichloroethene	ND	140	100	24	11	NA		
Frichlorofluoromethane	ND	ND	ND	ND	11	NA		
Vinyl Chloride	ND	ND	ND	ND	5.2	NA		
0/ 551.		rogate Recoveries	1	05	1			
%SS1:	94	96	94	95				
%SS2: %SS3:	100 105	99 105	100	99 102				
	105	103	102	102				
Comments					1			

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

# surrogate diluted out of range or surrogate coelutes with another peak.

McCampbell A "When Qua	•	Inc.	Toll Free Telepho	Pass Road, Pittsburg, CA ne: (877) 252-9262 / Fax: pbell.com / E-mail: main@	: (925) 252-9269	n	
Endpoint	Client Pr	oject ID: TM I	Dublin; Crow	Date Sampled:	06/27/12		
-	Canyon			Date Received:	06/28/12		
98 Battery Street, Suite 200	Client C	ontact: Mehrdad	Javaher	Date Extracted:	acted: 06/29/12		
San Francisco, CA 94111	Client P.		, ou valler	Date Analyzed:			
Halog Extraction Method: SW5030B		Organics by P& alytical Method: SW826	<b>T and GC/MS</b>	in μg/m³*	Work Order:	1206836	
Lab ID	1206836-003A	1206836-005A	1206836-008A	1206836-009A			
Client ID	VE-1D	VE-1S	VE-3D	VE-3S	Reporting DF		
Matrix	Soil Gas	Soil Gas	Soil Gas	Soil Gas			
DF	1	1	1	1	Soil Gas	W	
Initial Pressure (psia)	13.03	12.27	12.14	12.68			
Final Pressure (psia)	25.98	24.44	24.18	25.28		-	
Compound		Conce	ntration		µg/m³	ug/L	
Bromochloromethane	ND	ND	ND	ND	0.25	NA	
Bromodichloromethane	ND	ND	ND	ND	500	NA	
Bromoform	ND	ND	ND	ND	500	NA	
Bromomethane	ND	ND	ND	ND	500	NA	
Carbon Tetrachloride	ND	ND	ND	ND	500	NA	
Chlorobenzene	ND	ND	ND	ND	500	NA	
Chloroethane	ND ND	ND	ND	ND	500	NA	
Chloroform Chloromethane	ND 1000	ND ND	ND ND	ND ND	500 500	NA NA	
Dibromochloromethane	ND	ND	ND	ND	500	NA	
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	500	NA	
1,2-Dichlorobenzene	ND	ND	ND	ND	500	NA	
1,3-Dichlorobenzene	ND	ND	ND	ND	500	NA	
1.4-Dichlorobenzene	ND	ND	ND	ND	500	NA	
Dichlorodifluoromethane	ND	ND	ND	ND	500	NA	
1,1-Dichloroethane	ND	ND	ND	ND	500	NA	
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND	ND	500	NA	
1,1-Dichloroethene	ND	ND	ND	ND	500	NA	
cis-1,2-Dichloroethene	ND	ND	ND	ND	500	NA	
trans-1,2-Dichloroethene	ND	ND	ND	ND	500	NA	
1,2-Dichloropropane	ND	ND	ND	ND	500	NA	
cis-1,3-Dichloropropene	ND	ND	ND	ND	500	NA	
trans-1,3-Dichloropropene	ND ND	ND ND	ND	ND	500	NA	
Ethanol Freon 113	ND ND	ND ND	ND ND	ND ND	50000 10000	NA NA	
Methylene chloride	ND	ND	ND	ND	500	NA	
1,1,2-Tetrachloroethane	ND	ND	ND	ND	500	NA	
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	500	NA	
Tetrachloroethene	4500	12,000	790	ND	500	NA	
1,2,4-Trichlorobenzene	ND	ND	ND	ND	500	NA	
1,1,1-Trichloroethane	ND	ND	ND	ND	500	NA	
1,1,2-Trichloroethane	ND	ND	ND	ND	500	NA	
Trichloroethene	ND	ND	ND	ND	500	NA	
Trichlorofluoromethane	ND	ND	ND	ND	500	NA	
Vinyl Chloride	ND	ND	ND	ND	500	NA	
		rogate Recoveries (					
%SS1:	111	109	110	109			
%SS2:	93	91	90	89			
%SS3:	111	112	114	110	1		
Comments			1	1			

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

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

	McCampbell A "When Quality		al <u>, Inc.</u>	1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com							
Endpoin	nt			TM Dublin; Crow							
08 Batt	ery Street, Suite 200	Canyo	n		Date Received: 06/28	1: 06/28/12					
98 Datt	ery Succi, Suite 200	Client	Contact: Me	hrdad Javaher	Date Extracted: 06/29	/12					
San Fra	uncisco, CA 94111	Client	P.O.:		Date Analyzed: 06/29	/12					
Extraction	method: TO15			heck Compound* ical methods: TO15		Work	Order: 12	206836			
Lab ID	Client ID	Matrix	Initial Pressure	Final Pressure	Isopropyl Alcohol	DF	% SS	Comments			
001A	VM-1D	Soil Gas	11.82	23.54	ND	1	N/A				
002A	VM-9SS	Soil Gas	12.26	24.42	ND	1	N/A				
004A	VM-4S	Soil Gas	12.14	24.19	ND	1	N/A				
006A	VM-7	Soil Gas	12.01	23.94	ND	1	N/A				
007A	VM-1S	Soil Gas	11.68	23.26	ND	1	N/A				
010A	VM-8	Soil Gas	11.91	23.73	ND	1	N/A				
011A	VE-2D	Soil Gas	12.33	24.56	ND	1	N/A				
012A	VE-28	Soil Gas	12.62	25.14	ND	1	N/A				
	Reporting Limit for DF =1; ND means not detected at or	W	psia	psia	NA			NA			
	above the reporting limit	SoilGas	psia	psia	50		ł	ug/m³			

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

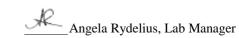
The (liquid) Leak Check reference is:

DTSC, Advisory-Active Soil Gas Investigations, April 2012, page 17, section 4.2.2.1:

"The laboratory reports should quantify and annotate all detections of the leak check compound at the reporting limit of the target analytes."

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

DHS ELAP Certification 1644



	McCampbell Ar "When Quality		al, Inc.	1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com								
Endpoi	nt		Project ID:	Date Sampled: 06/2	7/12							
98 Batt	ery Street, Suite 200	Canyo	11		Date Received: 06/2	8/12						
		Client	Contact: M	ehrdad Javaher	Date Extracted: 06/2	9/12						
San Fra	ancisco, CA 94111	Client	P.O.:		Date Analyzed: 06/2	9/12						
Extraction	method: SW5030B			Check Compound* ytical methods: SW82601		Work	Order: 1	206836				
Lab ID	Client ID	Matrix	Initial Pressur	e Final Pressure	Isopropyl Alcohol	DF	% SS	Comment				
003A	VE-1D	Soil Gas	13.03	25.98	ND	1	N/A					
005A	VE-1S	Soil Gas	12.27	24.44	ND	1	N/A					
008A	VE-3D	Soil Gas	12.14	24.18	ND	1	N/A					
009A	VE-3S	Soil Gas	12.68	25.28	ND	1	N/A					
	Reporting Limit for DF =1; ND means not detected at or	W	psia	psia	NA			NA				
	above the reporting limit	Soil Vapor	psia	psia	20000		l	ug/m³				

The (liquid) Leak Check reference is:

DTSC, Advisory-Active Soil Gas Investigations, April 2012, page 17, section 4.2.2.1:

"The laboratory reports should quantify and annotate all detections of the leak check compound at the reporting limit of the target analytes."

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

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager



## QC SUMMARY REPORT FOR ASTM D 1946-90

W.O. Sample Matrix: Soil Vapor		BatchID	: 68833	WorkOrder: 1206836								
EPA Method: ASTM D 1946-90	EPA Method: ASTM D 1946-90     Extraction: ASTM D 1946-90     Spiked Sample ID: N/A											
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acc	Criteria (%)				
	%	%	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS			
Helium	N/A	0.010	N/A	N/A	N/A	111	N/A	N/A	60 - 140			
All target compounds in the Method Blank of NONE	of this extraction batch were NI	O less than the	ne method	RL with th	he following	g exceptior	is:					

#### BATCH 68833 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1206836-005A	06/27/12 2:17 PM	4 07/05/12	07/05/12 6:18 PM				

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

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

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

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

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

♣<\_\_\_QA/QC Officer



BatchID: 68750

## QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil Vapor/Soilgas

QC Matrix: Water

WorkOrder: 1206836

EPA Method: SW8260B Ex	traction: SW5030B					:	Spiked Sam	ple ID:	1206815-003A
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acc	eptance	Criteria (%)
, indyte	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Chlorobenzene	ND	10	84.5	89	5.12	86.3	70 - 130	20	70 - 130
1,2-Dibromoethane (EDB)	ND	10	96.6	96.7	0.0996	91.2	70 - 130	20	70 - 130
1,2-Dichloroethane (1,2-DCA)	ND	10	106	105	0.861	93.7	70 - 130	20	70 - 130
1,1-Dichloroethene	ND	10	82	87.3	6.35	80.3	70 - 130	20	70 - 130
Trichloroethene	ND	10	89.1	94.3	5.59	85.9	70 - 130	20	70 - 130
%SS1:	113	25	112	113	0.492	110	70 - 130	20	70 - 130
%SS2:	97	25	91	92	0.618	97	70 - 130	20	70 - 130
%SS3:	112	2.5	111	109	2.22	110	70 - 130	20	70 - 130

#### BATCH 68750 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1206836-003A	06/27/12 1:21 PM	06/29/12	06/29/12 3:04 PM	1206836-003A	06/27/12 1:21 PM	06/29/12	06/29/12 3:04 PM
1206836-005A	06/27/12 2:17 PM	06/29/12	06/29/12 3:44 PM	1206836-005A	06/27/12 2:17 PM	06/29/12	06/29/12 3:44 PM
1206836-008A	06/27/12 4:24 PM	06/29/12	06/29/12 4:23 PM	1206836-008A	06/27/12 4:24 PM	06/29/12	06/29/12 4:23 PM
1206836-009A	06/27/12 4:36 PM	06/29/12	06/29/12 5:39 PM	1206836-009A	06/27/12 4:36 PM	06/29/12	06/29/12 5:39 PM

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

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

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

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

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



W.O. Sample Matrix: Soilgas

## http://www.nccampoen.com/ E-mail. ma

## QC SUMMARY REPORT FOR TO15 QC Matrix: Soilgas BatchID: 68747

WorkOrder: 1206836

EPA Method: TO15	Extraction: TO15					ę	Spiked Sam	ple ID:	N/A
Analyte	Sample	e Spiked	MS	MSD	MS-MSD	LCS	Acc	eptance	Criteria (%)
/ maryto	nL/L	nL/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Acrylonitrile	N/A	25	N/A	N/A	N/A	88.8	N/A	N/A	60 - 140
tert-Amyl methyl ether (TAME)	N/A	25	N/A	N/A	N/A	102	N/A	N/A	60 - 140
Benzene	N/A	25	N/A	N/A	N/A	103	N/A	N/A	60 - 140
Benzyl chloride	N/A	25	N/A	N/A	N/A	124	N/A	N/A	60 - 140
Bromodichloromethane	N/A	25	N/A	N/A	N/A	108	N/A	N/A	60 - 140
Bromoform	N/A	25	N/A	N/A	N/A	116	N/A	N/A	60 - 140
t-Butyl alcohol (TBA)	N/A	25	N/A	N/A	N/A	84	N/A	N/A	60 - 140
Carbon Disulfide	N/A	25	N/A	N/A	N/A	91.2	N/A	N/A	60 - 140
Carbon Tetrachloride	N/A	25	N/A	N/A	N/A	127	N/A	N/A	60 - 140
Chlorobenzene	N/A	25	N/A	N/A	N/A	104	N/A	N/A	60 - 140
Chloroethane	N/A	25	N/A	N/A	N/A	90.2	N/A	N/A	60 - 140
Chloroform	N/A	25	N/A	N/A	N/A	103	N/A	N/A	60 - 140
Chloromethane	N/A	25	N/A	N/A	N/A	93.5	N/A	N/A	60 - 140
Dibromochloromethane	N/A	25	N/A	N/A	N/A	116	N/A	N/A	60 - 140
1,2-Dibromo-3-chloropropane	N/A	25	N/A	N/A	N/A	112	N/A	N/A	60 - 140
1,2-Dibromoethane (EDB)	N/A	25	N/A	N/A	N/A	107	N/A	N/A	60 - 140
1,2-Dichlorobenzene	N/A	25	N/A	N/A	N/A	109	N/A	N/A	60 - 140
1,3-Dichlorobenzene	N/A	25	N/A	N/A	N/A	107	N/A	N/A	60 - 140
1,4-Dichlorobenzene	N/A	25	N/A	N/A	N/A	111	N/A	N/A	60 - 140
Dichlorodifluoromethane	N/A	25	N/A	N/A	N/A	107	N/A	N/A	60 - 140
1,1-Dichloroethane	N/A	25	N/A	N/A	N/A	94.9	N/A	N/A	60 - 140
1,2-Dichloroethane (1,2-DCA)	N/A	25	N/A	N/A	N/A	111	N/A	N/A	60 - 140
1,1-Dichloroethene	N/A	25	N/A	N/A	N/A	97.8	N/A	N/A	60 - 140
cis-1,2-Dichloroethene	N/A	25	N/A	N/A	N/A	97.8	N/A	N/A	60 - 140
trans-1,2-Dichloroethene	N/A	25	N/A	N/A	N/A	97.4	N/A	N/A	60 - 140
1,2-Dichloropropane	N/A	25	N/A	N/A	N/A	100	N/A	N/A	60 - 140
cis-1,3-Dichloropropene	N/A	25	N/A	N/A	N/A	107	N/A	N/A	60 - 140
trans-1,3-Dichloropropene	N/A	25	N/A	N/A	N/A	109	N/A	N/A	60 - 140
1,2-Dichloro-1,1,2,2-tetrafluoroethane	N/A	25	N/A	N/A	N/A	102	N/A	N/A	60 - 140
Diisopropyl ether (DIPE)	N/A	25	N/A	N/A	N/A	88.5	N/A	N/A	60 - 140
1,4-Dioxane	N/A	25	N/A	N/A	N/A	115	N/A	N/A	60 - 140

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

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

\* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

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

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Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

QA/QC Officer

DHS ELAP Certification 1644



W.O. Sample Matrix: Soilgas

## QC SUMMARY REPORT FOR TO15 QC Matrix: Soilgas BatchID: 68747

WorkOrder: 1206836

EPA Method: TO15 Extra	ction: TO15	Spiked Sample ID: N/A							
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acc	eptance	Criteria (%)
,	nL/L	nL/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Ethyl acetate	N/A	25	N/A	N/A	N/A	80.9	N/A	N/A	60 - 140
Ethyl tert-butyl ether (ETBE)	N/A	25	N/A	N/A	N/A	96	N/A	N/A	60 - 140
Ethylbenzene	N/A	25	N/A	N/A	N/A	102	N/A	N/A	60 - 140
Freon 113	N/A	25	N/A	N/A	N/A	99.5	N/A	N/A	60 - 140
Hexachlorobutadiene	N/A	25	N/A	N/A	N/A	108	N/A	N/A	60 - 140
4-Methyl-2-pentanone (MIBK)	N/A	25	N/A	N/A	N/A	94.8	N/A	N/A	60 - 140
Methyl-t-butyl ether (MTBE)	N/A	25	N/A	N/A	N/A	98.6	N/A	N/A	60 - 140
Methylene chloride	N/A	25	N/A	N/A	N/A	83.8	N/A	N/A	60 - 140
Naphthalene	N/A	25	N/A	N/A	N/A	138	N/A	N/A	60 - 140
Styrene	N/A	25	N/A	N/A	N/A	104	N/A	N/A	60 - 140
1,1,1,2-Tetrachloroethane	N/A	25	N/A	N/A	N/A	117	N/A	N/A	60 - 140
1,1,2,2-Tetrachloroethane	N/A	25	N/A	N/A	N/A	100	N/A	N/A	60 - 140
Tetrachloroethene	N/A	25	N/A	N/A	N/A	114	N/A	N/A	60 - 140
Tetrahydrofuran	N/A	25	N/A	N/A	N/A	122	N/A	N/A	60 - 140
Toluene	N/A	25	N/A	N/A	N/A	101	N/A	N/A	60 - 140
1,2,4-Trichlorobenzene	N/A	25	N/A	N/A	N/A	136	N/A	N/A	60 - 140
1,1,1-Trichloroethane	N/A	25	N/A	N/A	N/A	112	N/A	N/A	60 - 140
1,1,2-Trichloroethane	N/A	25	N/A	N/A	N/A	106	N/A	N/A	60 - 140
Trichloroethene	N/A	25	N/A	N/A	N/A	109	N/A	N/A	60 - 140
1,2,4-Trimethylbenzene	N/A	25	N/A	N/A	N/A	109	N/A	N/A	60 - 140
1,3,5-Trimethylbenzene	N/A	25	N/A	N/A	N/A	107	N/A	N/A	60 - 140
Vinyl Chloride	N/A	25	N/A	N/A	N/A	100	N/A	N/A	60 - 140
%SS1:	N/A	500	N/A	N/A	N/A	126	N/A	N/A	60 - 140
%SS2:	N/A	500	N/A	N/A	N/A	119	N/A	N/A	60 - 140
%SS3:	N/A	500	N/A	N/A	N/A	119	N/A	N/A	60 - 140

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

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**DHS ELAP Certification 1644** 

QA/QC Officer



## QC SUMMARY REPORT FOR TO15

W.O. Sample Mat	W.O. Sample Matrix: Soilgas				s BatchID: 68747				WorkOrder: 1206836		
EPA Method: TC	EPA Method: T015     Extraction: T015     Spiked Sample ID: N/A										N/A
	Analyte				MS	MSD	MS-MSD	LCS	Acc	eptance	e Criteria (%)
	, and jee		nL/L	nL/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
			BATCH 6	8747 SU	MMARY						
Lab ID	Date Sampled	Date Extracted	Date Anal	yzed	Lab ID		Date S	Sampled	Date Ext	racted	Date Analyzed
1206836-001A	06/27/12 11:22 AM	06/29/12	06/29/12 3	:49 AM	1206836-0	002A	06/27/	12 12:41 P	M 06/2	29/12	06/29/12 4:35 AM
1206836-004A	06/27/12 1:48 PM	06/29/12	06/29/12 6	:09 AM	1206836-0	06A	06/27	/12 3:11 P	M 06/2	29/12	06/29/12 7:43 AM
1206836-007A	06/27/12 4:00 PM	06/29/12	06/29/12 8	:29 AM	1206836-0	010A	06/27	/12 5:05 P	M 06/2	29/12	06/29/12 10:49 AM
1206836-011A	06/27/12 6:04 PM	06/29/12	06/29/12 11:	:36 AM	1206836-0	012A	06/27	/12 6:13 P	M 06/2	29/12	06/29/12 12:23 PM

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

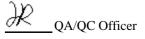
% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

\* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

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Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

DHS ELAP Certification 1644



Appendix B

**Field Data Sheets** 



Client: Crow Canyon Cleaners Site: 7272 Crow Canyon Rd

**Dublin CA** 

Job #:

TMDUBLIN Technician: Date:

System Parameters		ival			Dep	arture
Total Hour Meter (blower)	C	10			2	15
Blower Amps		11				
Influent						
Time			Τ			
Pipe ID diameter (in.)		3''	3	5"		3''
Differential Pressure (in. H <sub>2</sub> O)		70				
Vacuum (in. H <sub>2</sub> O)	10	11				
Temperature (°F)	65	87.				
Total hydrocarbons (ppmv)	91	3	6 9 1 1 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	ie wei storegiezen aus we		
Sample ID #	INFL	UENT	Sample Ti	ne		8 X X X
Analyses	TPH as G	as, BTEX,	MTBE			
Midpoint						
Total hydrocarbons (ppmv)	0,0	>				
Sample ID #	MID	POINT	Sample Tir	ne		
Analyses	TPH as G	as, BTEX, I	MTBE			
Effluent						
Time						
Pipe ID diameter (in.)	2	2''	2			2''
Differential Pressure (in. H <sub>2</sub> O)	le	18				
Temperature (°F)	6	5				
Total hydrocarbons (ppmv)	<i>O</i> (	Ø		*		
Sample ID #	EFFL	UENT	Sample Tir	ne		
Analyses	TPH as Ga	as, BTEX, I	мтве			
Active on arrival?	(circl) Yes	e one)	Monito	ring device:		D IR
Active on departure?	Yes	No	1	ilution Air	Yes	No
Shut Down Date	Ċ	10		lestart date:	18	
Wells Name	20	25	30	35	10	15
Pipe ID diameter (in.)	and the second se	2"	2"	2"	2"	2"
		4	14	4	3.5	3.9
Vacuum (in. H2O)		1	7	111	2.1	1
Differential Pressure (in. H2O)	-	, [	,2	1/7	,14	1/5
Temperature (°F)	66					->
Total hydrocarbons (ppmv)	010	0,0	2.5	0.0	0.0	12
Comments: System Stort	-up					
	all					

6/28/12 Stranles Systeme 0830 ForF . 170 10" vac 65° 9:3ppm VE-ZD 4" VAC 0071 0,0 ppm VE-25 0 4" 0.0ppn VE-3D 02 4" zis ppm-VE-35 +14 4" Diopp-. 14 VE -DD 3.5" 0.0 ppm 02 ppm VE-15 .15 3.9

EFF 1.18

Tup 65

VM 15 = . 279" Vm10 = . 346" Vm 955 = : 44 " Vm-10 = .02 Vm-35 = 1042 Um-30 = .027 Vm - 7 = 0.0Vm - 8 = -1= ,41" VM - 45



Client: Crow Canyon Cleaners

Site: 7272 Crow Canyon Rd

Dublin CA

Job #:	TMDUBLIN
Technician:	SA
Date:	7/3/12
	- 1 - 1

System Parameters	An	ival			Dep	arture
Total Hour Meter (blower)	118	2			120	16
Blower Amps	16/16	16				
Influent	1 1					
Time		8				
Pipe ID diameter (in.)		3"	-	3''	3	3''
Differential Pressure (in. H <sub>2</sub> O)	.2	2			×	
Vacuum (in. H <sub>2</sub> O)	6	4				
Temperature (°F)	6	5				
Total hydrocarbons (ppmv)	0.0	2				
Sample ID #	INFL	UENT	Sample Ti	me		
Analyses	TPH as Ga	as, BTEX, I	MTBE			
Effluent						
Time						
Pipe ID diameter (in.)	2		2	2''	2	2''
Differential Pressure (in. H <sub>2</sub> O)	112	5				
Temperature (°F)	65					
Total hydrocarbons (ppmv)	Ou	2				
Sample ID #	EFFL	UENT	Sample Tir	ne		
Analyses	TPH as Ga	as, BTEX, I	мтве			
	(circl	e one)			(circl	e one)
Active on arrival?	Yes	No	Monito	ring device:	FIL PI	DIR
Active on departure?	Yes	No	E	Dilution Air	Yes &	No
Shut Down Date				Restart date:		
Wells Name		VE.25	VE-3D	VE-35	VE-1D	VE-15
Pipe ID diameter (in.)	2''	2"	2"	2"	2"	2"
Vacuum (in. H2O)						
Differential Pressure (in. H2O)						
Temperature (°F)						
Total hydrocarbons (ppmv)			e i		~	
Comments: 32" 25" cc-1,	CC-2	mi	DOOD	t	0.0	op
0.0 / 1035/ .09:	3		0			1
	PROPS	(2)	203			
ATV 312HU 40M3				4		
for the second						

92 SCFM



Client: Crow Canyon Cleaners Site: 7272 Crow Canyon Rd

**Dublin CA** 

Job #: TMDUBLIN

Technician: < Date: 13 12

System Par	rameters		Ar	rival		an ann	Dep	arture		
	Тс	otal Hour Meter (blower)	36	0.9			362	-17,		
		Blower Amps	8/8	18			7.51	7.3/7		
Influent										
		Time	092	37						
		Pipe ID diameter (in.)		3"	3	;"		3''		
	Differ	ential Pressure (in. H <sub>2</sub> O)	. 2	9						
		Vacuum (in. H <sub>2</sub> O)	-5,	5"						
		Temperature (°F)	62	123						
	To	tal hydrocarbons (ppmv)	25,	o ppn	-					
		Sample ID #	INFL	UENT	Sample Time					
		Analyses	TPH as G	as, BTEX,	MTBE					
Effluent		min	0.0				ł			
		Time	093	8						
		Pipe ID diameter (in.)	2	2''	,11		2''			
	Differ	ential Pressure (in. H <sub>2</sub> O)	11,	14						
		Temperature (°F)	6	4						
	To	tal hydrocarbons (ppmv)	O .	0						
		Sample ID #	EFFLUENT Sample Time							
		Analyses	TPH as G	as, BTEX,	MTBE					
		Active on arrival?	Yes	le one)	Monitoring device: FID					
		Active on departure?	Yes	No		ilution Air	Yes	No		
		Shut Down Date			F	estart date:				
Wells		Name								
		Pipe ID diameter (in.)	2''	2''	2''	2"	2"	2''		
		Vacuum (in. H2O)								
	Differe	ential Pressure (in. H2O)								
		Temperature (°F)								
	Tot	al hydrocarbons (ppmv)								

**Comments:** 

205227 5811 B



Client: Crow Canyon Cleaners

Site: 7272 Crow Canyon Rd

**Dublin CA** 

Job #: **TMDUBLIN** Technician: 30 Date: 9 12

System Parameters	Ar	rival	an Managaran I.		Dep	oarture	
Total Hour Meter (blower)	509	7,4		16,	4.16.41	11.7, 11.7	
Blower Amps	10.3/10.	2/7.2/	1.4,7,0		311	.4	
Influent		/ '	1				
Time	;	/					
Pipe ID diameter (in.)		3''		3''		3"	
Differential Pressure (in. H <sub>2</sub> O)	1 .4	4					
Vacuum (in. H <sub>2</sub> O)	10	4					
Temperature (°F)	70	Rel	2				
Total hydrocarbons (ppmv)	1,2	5					
Sample ID #	INFL	UENT	Sample Ti	me /4	440		
Analyses	TPH as G	as, BTEX,	, MTBE				
Effluent Mipport							
Time							
Pipe ID diameter (in.)		2''		2''	2"		
Differential Pressure (in. H <sub>2</sub> O)	2	116				-	
Temperature (°F)	99	90					
Total hydrocarbons (ppmv)	Oi	0	â				
Sample ID #	EFFL	EFFLUENT Sample Time					
Analyses	TPH as G	as, BTEX,	MTBE				
	Circi	le one)			(circ	le one)	
Active on arrival?	Yes	No	Monito	ring device:	FID (P	ID/IR	
Active on departure?	(Yes)	No	I	Dilution Air	Yes	No	
Shut Down Date			] ]	Restart date:			
Wells Name							
Pipe ID diameter (in.)	2''	2''	2"	2"	2"	2"	
Vacuum (in. H2O)							
Differential Pressure (in. H2O)							
Temperature (°F)							
Total hydrocarbons (ppmv)							

**Comments:** 

SERM

BAU



Client: Crow Canyon Cleaners

Job #: TMDUBLIN

Site: 7272 Crow Canyon Rd

**Dublin CA** 

Technician:

Date: 26

ameters	\$	Ar	rival			Dep	oarture		
To	otal Hour Meter (blower)	67	4.0						
	Blower Amps		1						
	Time			×.,		1.1			
	Pipe ID diameter (in.)		3''		3"		3"		
Differ	rential Pressure (in. H <sub>2</sub> O)	43					×		
	Vacuum (in. H <sub>2</sub> O)	10	k.						
	Temperature (°F)	10	7	1		1			
То	tal hydrocarbons (ppmv)	Dec	>						
	Sample ID #	INFI	UENT	Sample Ti	me		54		
	Analyses	TPH as G	as, BTEX,						
	2 <sup>1</sup>								
To	tal hydrocarbons (ppmv)	Que	>						
	Sample ID #			Sample Ti	Sample Time				
	Analyses	TPH as Gas, BTEX, MTBE							
Effluent						a she			
	Time					and the			
	Pipe ID diameter (in.)	2''			2"		2''		
Differ	ential Pressure (in. H <sub>2</sub> O)	Z	0				pt - 1		
	Temperature (°F)	2	2						
Tot	· · · · · ·	0	.01			1			
	Sample ID #	EFFI	UENT	Sample Time					
	Analyses	TPH as G	as, BTEX,						
		(circi	e one)	(circle one)					
	Active on arrival?	Yes	No	Monito	ring device:				
	Active on departure?	Yes	No	1			No		
	_	0							
		IE-25	1E-15						
	r	2"	2"	2"	2"	2"	2"		
		71	711						
Differe	· · · · · · · · · · · · · · · · · · ·	,17	,9						
		67	1.7			11			
-	al hydrocarbons (ppmv)	- (		1					
	To Differ To Differ	Total Hour Meter (blower) Blower Amps Time Pipe ID diameter (in.) Differential Pressure (in. H <sub>2</sub> O) Vacuum (in. H <sub>2</sub> O) Temperature (°F) Total hydrocarbons (ppmv) Sample ID # Analyses Total hydrocarbons (ppmv) Sample ID # Analyses Time Pipe ID diameter (in.) Differential Pressure (in. H <sub>2</sub> O) Temperature (°F) Total hydrocarbons (ppmv) Sample ID # Analyses Analyses	Total Hour Meter (blower)CBlower AmpsPipe ID diameter (in.)Differential Pressure (in. H2O)Vacuum (in. H2O)Vacuum (in. H2O)CTotal hydrocarbons (ppmv)Sample ID #MIDIAnalysesTPH as GTotal hydrocarbons (ppmv)Sample ID #MIDIAnalysesTPH as GTotal hydrocarbons (ppmv)Sample ID #MIDIAnalysesTPH as GTotal hydrocarbons (ppmv)Sample ID #Pipe ID diameter (in.)Differential Pressure (in. H2O)Temperature (°F)Total hydrocarbons (ppmv)Sample ID #Pipe ID diameter (in.)Sample ID #FFFIAnalysesTPH as GActive on arrival? YesActive on departure? Shut Down DatePipe ID diameter (in.)2"YesShut Down DateNameJE-ZEPipe ID diameter (in. H2O)7'/Differential Pressure (in. H2O) <td>Total Hour Meter (blower) Blower Amps Blower Amps Time Pipe ID diameter (in.) Differential Pressure (in. H<sub>2</sub>O) Vacuum (in. H<sub>2</sub>O) Vacuum (in. H<sub>2</sub>O) <math>4^{-3}</math> Vacuum (in. H<sub>2</sub>O) <math>4^{-5}</math> Vacuum (in. H<sub>2</sub>O) <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> Total hydrocarbons (ppmv) Sample ID # MIDPOINT Analyses TPH as Gas, BTEX, <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math> <math>4^{-5}</math></br></br></td> <td>Total Hour Meter (blower)<math>\bigcirc</math> 7 9 0Blower AmpsImage: State of the stat</td> <td>Total Hour Meter (blower)<math>\boxed{C74'.0}</math>Blower AmpsIBlower AmpsITime3"Pipe ID diameter (in.)3"Differential Pressure (in. H2O)<math>\checkmark</math> <math>\boxed{0}</math>Vacuum (in. H2O)<math>(\bigcirc</math> <math>\land</math>Total hydrocarbons (ppmv)<math>\bigcirc</math> <math>c</math> <math>\bigcirc</math>Sample ID #INFLUENTAnalysesTPH as Gas, BTEX, MTBETotal hydrocarbons (ppmv)<math>\bigcirc</math> <math>c</math> <math>\bigcirc</math>Sample ID #MIDPOINTSample ID #MIDPOINTSample ID #MIDPOINTAnalysesTPH as Gas, BTEX, MTBETotal hydrocarbons (ppmv)<math>\bigcirc</math> <math>c</math> <math>\bigcirc</math>Sample ID #MIDPOINTSample ID #MIDPOINTSample ID #TPH as Gas, BTEX, MTBETimeIPipe ID diameter (in.)<math>2"</math>Differential Pressure (in. H2O)<math>\bigcirc</math> <math>c</math> <math>\bigcirc</math> <math>c</math>Sample ID #EFFLUENTActive on arrival?YesNoMonitoring device:NoDilution AirRestart date:NamePipe ID diameter (in.)<math>2"</math><math>2"</math><math>2"</math>YesNoMonitoring device:NoNoDilution AirRestart date:NamePipe ID diameter (in.)<math>2"</math><math>2"</math><math>2"</math>Yacuum (in. H2O)<math>i/7</math><math>i/7</math><math>?/1</math>Nacuum (in. H2O)<math>i/7</math><math>i/7</math><math>?/1</math>Differential Pressure (in. H2O)<math>i/7</math><math>i/7</math><math>?/1</math><math>i/7</math><math>?/1</math><math>i/7</math></td> <td>Total Hour Meter (blower)<math>\bigcirc</math> 7 4 0<math>\bigcirc</math>Blower AmpsImage: Strate in the strate in t</td>	Total Hour Meter (blower) Blower Amps Blower Amps Time Pipe ID diameter (in.) 	Total Hour Meter (blower) $\bigcirc$ 7 9 0Blower AmpsImage: State of the stat	Total Hour Meter (blower) $\boxed{C74'.0}$ Blower AmpsIBlower AmpsITime3"Pipe ID diameter (in.)3"Differential Pressure (in. H2O) $\checkmark$ $\boxed{0}$ Vacuum (in. H2O) $(\bigcirc$ $\land$ Total hydrocarbons (ppmv) $\bigcirc$ $c$ $\bigcirc$ Sample ID #INFLUENTAnalysesTPH as Gas, BTEX, MTBETotal hydrocarbons (ppmv) $\bigcirc$ $c$ $\bigcirc$ Sample ID #MIDPOINTSample ID #MIDPOINTSample ID #MIDPOINTAnalysesTPH as Gas, BTEX, MTBETotal hydrocarbons (ppmv) $\bigcirc$ $c$ $\bigcirc$ Sample ID #MIDPOINTSample ID #MIDPOINTSample ID #TPH as Gas, BTEX, MTBETimeIPipe ID diameter (in.) $2"$ Differential Pressure (in. H2O) $\bigcirc$ $c$ $\bigcirc$ $c$ Sample ID #EFFLUENTActive on arrival?YesNoMonitoring device:NoDilution AirRestart date:NamePipe ID diameter (in.) $2"$ $2"$ $2"$ YesNoMonitoring device:NoNoDilution AirRestart date:NamePipe ID diameter (in.) $2"$ $2"$ $2"$ Yacuum (in. H2O) $i/7$ $i/7$ $?/1$ Nacuum (in. H2O) $i/7$ $i/7$ $?/1$ Differential Pressure (in. H2O) $i/7$ $i/7$ $?/1$ $i/7$ $?/1$ $i/7$	Total Hour Meter (blower) $\bigcirc$ 7 4 0 $\bigcirc$ Blower AmpsImage: Strate in the strate in t		



Client: Crow Canyon Cleaners

Site: 7272 Crow Canyon Rd

**Dublin CA** 

Job #: TMDUBLIN Technician:  $\frac{7}{27/22}$ Date:  $\frac{7}{27/22}$ 

System Parameters	Arr	ival			Dep	arture
Total Hour Meter (blower)	70	(				
Blower Amps						
Influent						
Time						
Pipe ID diameter (in.)	3" 3"				3	3''
Differential Pressure (in. H <sub>2</sub> O)	• 2	>				
Vacuum (in. H <sub>2</sub> O)	10	((				
Temperature (°F)	71					
Total hydrocarbons (ppmv)	O.	0				
Sample ID #	INFL	UENT	Sample Tir	ne		
Analyses	TPH as Ga	as, BTEX, I	МТВЕ			
Midpoint						
Total hydrocarbons (ppmv)	0.0	0				
Sample ID #	MIDI	POINT	Sample Tir	ne		
Analyses	TPH as Ga	as, BTEX, I	МТВЕ			
Effluent						
Time						
Pipe ID diameter (in.)	2	,**	2	,11	2	2''
Differential Pressure (in. $H_2O$ )	2.0					
Temperature (°F)	72	-				
Total hydrocarbons (ppmv)	6.0	)				
Sample ID #	EFFL	UENT	Sample Tin	ne		
Analyses	TPH as Ga	is, BTEX, M	МТВЕ			
Active on arrival? Active on departure? Shut Down Date	Yes Yes 7/2	e one) No No	D	ring device: vilution Air Cestart date:	/	le one) DIR No
Wells Name						
Pipe ID diameter (in.)	2"	2"	2"	2"	2"	2''
Vacuum (in. H2O)						
Differential Pressure (in. H2O)						
Temperature (°F)						
Total hydrocarbons (ppmv)	<u> </u>					
Comments: Shitdown	zsh		pen	DA	fame	)
Repuction Request	- A	pproc	Jack			
(	l					



Client: Crow Canyon Cleaners

Site: 7272 Crow Canyon Rd

Technician:

**Dublin CA** 

TMDUBLIN Job #: Date: 9 2 2

System Par	rameter	S	Aı	rival			Dep	oarture	
	Т	otal Hour Meter (blower)	70	2			70	24	
		Blower Amps						- (	
Influent									
		Time	3 0500				T		
		Pipe ID diameter (in.)		3"		3''	3"		
	Differ	rential Pressure (in. H <sub>2</sub> O)	э	3					
		Vacuum (in. H <sub>2</sub> O)	11						
		Temperature (°F)	10	4			1		
	То	tal hydrocarbons (ppmv)	6	O ppr	7				
		Sample ID #	INFI	UENT	Sample Ti	ne			
				as, BTEX					
Midpoint									
	То	tal hydrocarbons (ppmv)	Ø.	0			Γ		
		Sample ID #	the second s	POINT	Sample Tir	ne			
		Analyses	TPH as G	as, BTEX,	MTBE				
Effluent									
		Time					Γ		
		Pipe ID diameter (in.)	2	2''	2		2	2"	
	Differ	ential Pressure (in. H <sub>2</sub> O)	20	2:0					
		Temperature (°F)	9						
	Tot	tal hydrocarbons (ppmv)	p.	D					
	Tot	· · · ·	0	<i>o</i> .uent	Sample Tir	ne			
	Tot	tal hydrocarbons (ppmv) Sample ID #	EFFL		Sample Tin	ne			
	Tot	tal hydrocarbons (ppmv) Sample ID #	EFFL FPH as Ga	UENT		ne	(circl	e-one)	
	Tot	tal hydrocarbons (ppmv) Sample ID #	EFFL FPH as Ga	UENT as, BTEX,	MTBE			e-one) D IR	
	Tot	tal hydrocarbons (ppmv) Sample ID # Analyses	EFFL FPH as Ga (circl	UENT as, BTEX,	MTBE Monitor	ne ing device: ilution Air	FID PI	DIR	
	To	tal hydrocarbons (ppmv) Sample ID # Analyses Active on arrival?	EFFL FPH as G (circl Yes	UENT as, BTEX, e one)	MTBE Monitor D	ing device: ilution Air			
Vells	Tot	tal hydrocarbons (ppmv) Sample ID # Analyses Active on arrival? Active on departure?	EFFL FPH as G (circl Yes	UENT as, BTEX, e one)	MTBE Monitor D	ing device:	FID PI	DIR	
Wells	Tot	tal hydrocarbons (ppmv) Sample ID # Analyses Active on arrival? Active on departure? Shut Down Date	EFFL FPH as G (circl Yes	UENT as, BTEX, e one)	MTBE Monitor D	ing device: ilution Air	FID PI	DIR	
Wells	Tot	tal hydrocarbons (ppmv) Sample ID # Analyses Active on arrival? Active on departure? Shut Down Date Name	EFFL FPH as G (circl Yes Yes	UENT as, BTEX, e one) No No	MTBE Monitor D R	ing device: ilution Air estart date:	FID PI Yes	D IR No	
Wells		tal hydrocarbons (ppmv) Sample ID # Analyses Active on arrival? Active on departure? Shut Down Date Name Pipe ID diameter (in.)	EFFL FPH as G (circl Yes Yes	UENT as, BTEX, e one) No No	MTBE Monitor D R	ing device: ilution Air estart date:	FID PI Yes	D IR No	
Wells		tal hydrocarbons (ppmv) Sample ID # Analyses Active on arrival? Active on departure? Shut Down Date Name Pipe ID diameter (in.) Vacuum (in. H2O)	EFFL FPH as G (circl Yes Yes	UENT as, BTEX, e one) No No	MTBE Monitor D R 2''	ing device: ilution Air estart date:	FID PI Yes	D IR No	



**Client: Crow Canyon Cleaners** 

Site: 7272 Crow Canyon Rd **Dublin CA** 

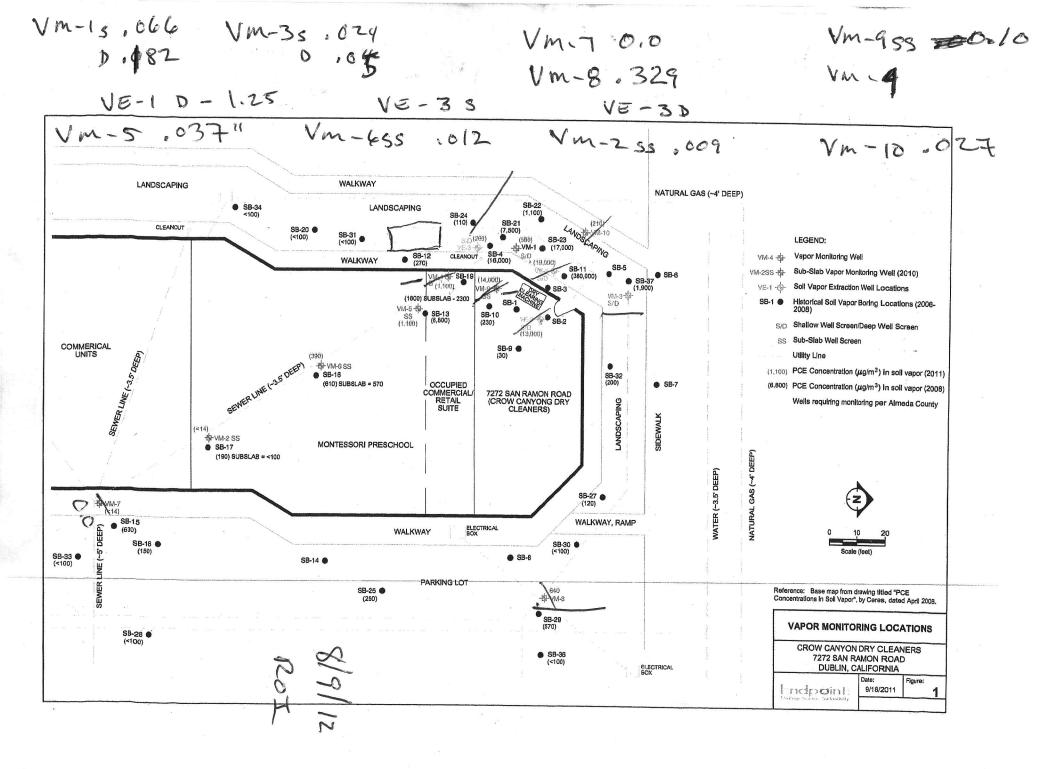
Job #:

Technician:

**TMDUBLIN** Date: 12

stem Parameters	Ai	rival			Dep	arture		
Total Hour Meter (blower)		1			887	4.5		
Blower Amps	16.7	, 16.5	11.7,1	11.7,11.8				
Influent				/				
Time	071	5			08	50		
Pipe ID diameter (in.)		3"		3"	3"			
Differential Pressure (in. H <sub>2</sub> O)	03	7		-	1.2	r		
Vacuum (in. H <sub>2</sub> O)					401	и		
Temperature (°F)	6	લિ						
Total hydrocarbons (ppmv)	C:	0	0,0 Branda 3			OTA CARACTERISTIC CONTRACTOR OF A CARACTERISTIC		
Sample ID #	INFI	LUENT	Sample Ti	me				
Analyses	TPH as G	as, BTEX,						
Midpoint								
Total hydrocarbons (ppmv)	0.	0		1				
Sample ID #		POINT	Sample Time					
Analyses	TPH as Gas, BTEX, MTBE							
Effluent								
Time	071	5				17		
Pipe ID diameter (in.)		2''		2''	2	**		
Differential Pressure (in. H <sub>2</sub> O)								
Temperature (°F)	99	50						
Total hydrocarbons (ppmv)	01	ð				99794349474953555555111		
Sample ID #			Sample Time					
Analyses	TPH as G	as, BTEX,						
	Circ	le one)			(circl	e one)		
Active on arrival?	Cyc	No	Monito	ring device:				
Active on departure?	(Yes)	No	I	Dilution Air	Yes	No)		
Shut Down Date	$\cup$			Restart date:		Y		
Vells Name	15	23						
Pipe ID diameter (in.)	2"	2"	2''	2''	2''	2''		
Vacuum (in. H2O)	10	11						
Differential Pressure (in. H2O)	29	1.6						
Temperature (°F)	64	64						
		1		1				

Switched 2 10,20





Client: Crow Canyon Cleaners

Site: 7272 Crow Canyon Rd

**Dublin CA** 

Job #: TMDUBLIN Technician: Date: 8/(6/12

System Para	tem Parameters		An	rival			De	parture		
	To	tal Hour Meter (blower)								
		Blower Amps	105	7.2						
Influent										
		Time								
		Pipe ID diameter (in.)		3''		3"		3"		
	Differ	ential Pressure (in. H <sub>2</sub> O)	•25	>						
		Vacuum (in. H <sub>2</sub> O)	440	- 11						
		Temperature (°F)	76							
	To	tal hydrocarbons (ppmv)		0						
		Sample ID #		UENT	Sample Time					
		-	TPH as G	as, BTEX,						
Midpoint										
•	To	tal hydrocarbons (ppmv)	0.	0	1					
		Sample ID #		MIDPOINT Sample Time						
		Analyses	TPH as Gas, BTEX, MTBE							
Effluent										
		Time	vő		T					
		Pipe ID diameter (in.)	2			2"		2"		
	Differ	ential Pressure (in. $H_2O$ )	1,	1						
		Temperature (°F)	80	20						
	Tot	al hydrocarbons (ppmv)	Øi							
		Sample ID #	EFFL	UENT	Sample Ti	me				
		Analyses	TPH as G	as, BTEX,	MTBE					
16.962 r. 1		Hola la	) (circi	e one)			(circ	cle one)		
		Active on arrival?	Yes	No	Monito	oring device:				
		Active on departure?	(Yes)	No		Dilution Air	Yes	No		
		Shut Down Date				Restart date:	8/10			
Wells		Name	20	1	25	T		T		
		Pipe ID diameter (in.)	2"	2"	2"	2''	2''	2"		
		Vacuum (in. H2O)								
	Differe	ntial Pressure (in. H2O)	60,	.13	03					
		Temperature (°F)								
	Tot	al hydrocarbons (ppmv)								
Comments:				1	2					



Client: Crow Canyon Cleaners Site: 7272 Crow Canyon Rd

**Dublin CA** 

Job #: TMDUBLIN

Technician: Date: 29

System Par	ameters	A	rival	1 All Marca	- Freedown	De	parture
	Total Hour Meter (blower)	136	3 1367	74	144	13	69
	Blower Amps				S		
Influent				Ster Martin			Stand I.
	Time			all and the second s			
	Pipe ID diameter (in.)		3"		3"	- Andrews	3"
	Differential Pressure (in. H <sub>2</sub> O)	1	59		<u>1</u>	e .	30
	Vacuum (in. H <sub>2</sub> O)	ĺ.	ų	4-	5	2	2,5
	Temperature (°F)		45		<i>y</i>	65	-
	Total hydrocarbons (ppmv)	01	0			A	0
	Sample ID #	INFI	LUENT				
	Analyses		as, BTEX,	Sample Ti MTBE			
Midpoint			<u> </u>			0	
•	Total hydrocarbons (ppmv)	Oc	0	Γ			0
	Sample ID #	MID	POINT	Sample Ti	me		<u> </u>
	Analyses '	TPH as G	as, BTEX,		2.	M-68	
Effluent							
	Time			Τ		T	
	Pipe ID diameter (in.)	5	2''		2''		2"
	Differential Pressure (in. H <sub>2</sub> O)	2.1	07				59
	Temperature (°F)	8	7				21
	Total hydrocarbons (ppmv)	Ou	Ò			6.	8
	Sample ID #	EFFI	UENT	Sample Ti	ne		1.25
	Analyses	TPH as G	as, BTEX, I				and in the same state
			le one)			(circ	le one)
	Active on arrival?	Constraints of the second	No	Monito	ring device	C	ID IR
	Active on departure?	Yes	No		Dilution Air	Contraction of the local division of the loc	No
	Shut Down Date			1 1 Ext	Restart date	10	ino ino
Vells	Name "	20	25	3D	35	10	15
	Pipe ID diameter (in.)	2"	2"	2"	2"	2"	2"
	Vacuum (in. H2O)	15	6	15	8	15	5
		10	11			The second second	
	Differential Pressure (in. H2O)	2.0	111	215	15	2.0	16
	Temperature (°F)				arith ar		are and
	Total hydrocarbons (ppmv)	and a state	4	191 - L		1	S
	AL UN ALU	1	wells			h	State of the second
omments:	CLOSED SMALLA	W III	- A	op	enon	Ne	10
5 percon	Shortcan hel	15	- (8 Ľ	ouch	-the	- Ke	5
1		- All			the second		

the weeks

NOTES Endpoint. Client: Chow Com Job #: To Doblin 2 on Strategy. Science. Sustainability. Som Roman Technician: Site: 7272 Crai DULIN CAR Date: 11 1,2 1-881-778 Re Phase neiper UPD TF ()P DRC UFTE N chis mari 70 mod the ATU 312HU40M3 Import Line Current 25 17.5 01 m 240 off pinase JOSS TURN w envpaneter Nrent Ent esq. 145-9259 t 94 155 14 2 re Æ.



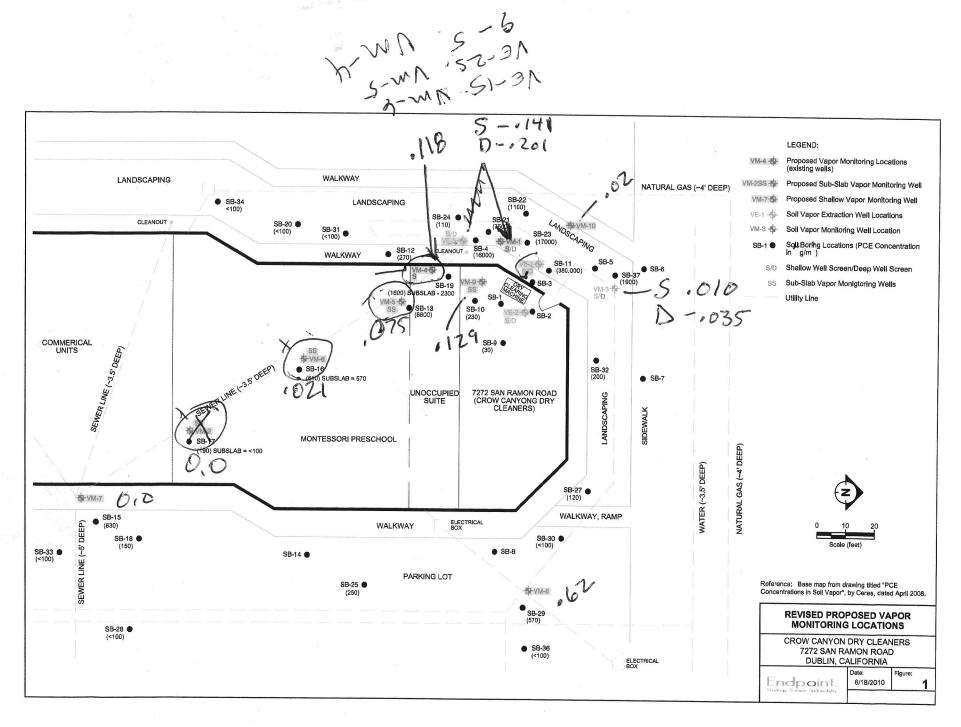
Client: Crow Canyon Cleaners

Site: 7272 Crow Canyon Rd

**Dublin CA** 

Job #: TMDUBLIN Technician: PDate: q/i 3/i2

System Parameters		Arr	ival			Depa	arture
Total Hou	r Meter (blower)	172	5,0			172	7
	Blower Amps	17					
Influent		M. Araba and		And And			1.24-34
	Time	2					
Pipe	D diameter (in.)	3	**	3	;"	3	;''
Differential Pr	ressure (in. H <sub>2</sub> O)	,3	i				
V	acuum (in. H <sub>2</sub> O)	9.7	11				
ŋ	Temperature (°F)	6	1				
Total hydro	ocarbons (ppmv)	0,0	9				
	Sample ID #	INFL	UENT	Sample Tir	ne		
	Analyses	TPH as Ga	is, BTEX, M	итве			
Midpoint							
Total hydro	ocarbons (ppmv)	0.0					
	Sample ID #	MIDP	OINT	Sample Tir	ne		
а С	Analyses	TPH as Ga	is, BTEX, M	ИТВЕ			
Effluent							
	Time						
Pipe	D diameter (in.)	2	"	2	,"	2	11
Differential Pr	ressure (in. H <sub>2</sub> O)	Zic	>				
1	[emperature (°F)	89					
Total hydro	ocarbons (ppmv)	Oit	>				
	Sample ID #	PEFFL	UENT	Sample Tir	ne		
s	Analyses	TPH as Ga	s, BTEX, N	ИТВЕ			
Dilce		(circle	e one)			(circle	e one)
Pulse A	ctive on arrival?	Yes	No	Monitor	ring device:	FID. (PII	IR
Activ	ve on departure?	Yes	No	D	ilution Air	Yes	No
	Shut Down Date	9/13	lin_	R	lestart date:		
Wells	Name	20	25	3D	35	10	15
Pipe I	D diameter (in.)	2"	2''	2''	2"	2''	2"
Va	cuum (in. H2O)	9	213	9:0	3.8	9.5"	215
Differential Pro	essure (in. H2O)	· 102	,059	1500	.065	.046	,099
Т	Cemperature (°F)	64 -					$\rightarrow$
Total hydro	ocarbons (ppmv)						





Client: Crow Canyon Cleaners Site: 7272 Crow Canyon Rd

Job #:

**Dublin CA** 

TMDUBLIN 6 ) Technician: Date: 9 3 12 2

System Para	meter	8	A	rival			Der	oarture	
		- otal Hour Meter (blower)		5.10			172		
		Blower Amps							
Influent		Diowei 7 mipo	- <b>b</b>						
		Time					T		
		Pipe ID diameter (in.)		3"	-	3"		3"	
	Differ	rential Pressure (in. H <sub>2</sub> O)	1	31		1			
		Vacuum (in. H <sub>2</sub> O)	-	7 "			1		
		Temperature (°F)	6.	4					
	То	otal hydrocarbons (ppmv)		0			<u> </u>		
		Sample ID #		LUENT	Sample Ti	ime	2 <sup>10</sup>		
		-	TPH as G	as, BTEX,				n de la composition d El	
Midpoint		3							
-	То	tal hydrocarbons (ppmv)	0.0	)					
12		Sample ID #		POINT	Sample Ti	me			
		Analyses	TPH as G	as, BTEX, I	МТВЕ	-	20 20		
Effluent						and the second second			
		Time							
		Pipe ID diameter (in.)	2" 2"				2"		
	Differ	ential Pressure (in. H <sub>2</sub> O)	Zic	>					
		Temperature (°F)	89						
	To	tal hydrocarbons (ppmv)	Oil	2					
		Sample ID #	ÊFFL	LUENT	Sample Ti	me			
-1		Analyses	TPH as G	as, BTEX, I	МТВЕ				
Dulse			(circl	le one)			(circl	e one)	
Pulse		Active on arrival?	Yes	No	Monito	ring device:	FID PI	DIR	
A	-	Active on departure?	Yes	No	I	Dilution Air	Yes	(No)	
		Shut Down Date	9/13	112	I	Restart date:			
Wells		Name	2D	25	30	35	10	15	
		Pipe ID diameter (in.)	2"	2''	2''	2''	2"	2"	
		Vacuum (in. H2O)	9	213	9:0	3.8	9.5"	2.5	
	Differe	ential Pressure (in. H2O)	. 102	,059	1500	.065	046	,099	
		Temperature (°F)	64 .					$\rightarrow$	
	Tot	al hydrocarbons (ppmv)			-				



Client: Crow Canyon Cleaners Site: 7272 Crow Canyon Rd

**Dublin** CA

Job #: TMDUBLIN Technician: 50 Date: 9/20/12

ppmv)	3 e 2 7 7 ( 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	2	Sample Tir	" "		7 <i>28</i> ;"		
Time er (in.) $H_2O)$ $H_2O)$ re (°F) ppmv) e ID # alyses <b>1</b>	e 2 Z 7 C 1, INFL INFL IPH as Ga	7 5 2_ 0 0 uent	Sample Tir		3	j <b>11</b>		
$rr (in.)$ $H_2O)$ $H_2O)$ $re (°F)$ $ppmv)$ $e ID #$ $alyses T$	e 2 Z 7 C 1, INFL INFL IPH as Ga	7 5 2_ 0 0 uent	Sample Tir		3	; <b>**</b>		
$rr (in.)$ $H_2O)$ $H_2O)$ $re (°F)$ $ppmv)$ $e ID #$ $alyses T$	e 2 Z 7 C 1, INFL INFL IPH as Ga	7 5 2_ 0 0 uent	Sample Tir		3	;"		
$\begin{array}{c} H_2O)\\ H_2O)\\ re (°F)\\ ppmv)\\ e ID #\\ alyses 1\\ ppmv)\\ \end{array}$	e 2 Z 7 C 1, INFL INFL IPH as Ga	7 5 2_ 0 0 uent	Sample Tir		3	<b>, ''</b>		
$H_{2}O)$ re (°F) ppmv) e ID # alyses <b>T</b> ppmv)	Z 7 ( 1, INFL TPH as Ga	2 0 UENT		ne				
re (°F) ppmv) e ID # alyses 1 ppmv)	7 ( 1, INFL FPH as Ga	0 O UENT		ne				
ppmv) e ID # alyses <b>T</b>	INFL FPH as Ga	UENT		ne				
e ID # alyses <b>1</b> ppmv)	INFL FPH as Ga	UENT		ne				
alyses <b>T</b>	FPH as Ga			ne	1			
ppmv)	8	as, BTEX, I	мтве					
	8	danse sliget solet						
	A D			and the second second				
-	000							
e ID #		POINT	Sample Tir	ne				
alyses T	TPH as Gas, BTEX, MTBE							
3								
Time								
er (in.)	2	2''	2	,**	2			
H <sub>2</sub> O)	les	-8						
re (°F)	85	5						
opmv)	$\mathcal{O}_{i}$	0						
e ID #	EFFL	UENT	Sample Time					
alyses T	<b>FPH as Ga</b>	as, BTEX, M	МТВЕ					
	(circle	e one)			(circle	e one)		
rival?	Yes	No	Monitor	ring device:	FID PI	DIR		
rture?	Yes	No	D	ilution Air	Yes J	No		
n Date	7 1 1	3/12	R	lestart date:	9/201	in		
Name	20	25	30	35	1D	15		
r (in.)	2"	2"	2"	2"	2''	2''		
	20	5	20	2	20	2		
H2O)	15	103	.35	,03	.4	107		
1	65-					$\rightarrow$		
H2O)		3.7	0.0	0,0	0.0	Or 6		
	H2O) re (°F)		re (°F) 65	e (°F) 65	e (°F) 65	e (°F) 65		



Client: Crow Canyon Cleaners

Site: 7272 Crow Canyon Rd

Job #: TMDUBLIN Technician: Sp Date: 10/14/12

**Dublin CA** 

System Para	ameters		Arr	ival			Dep	arture		
-		otal Hour Meter (blower)	204	39			2	040		
		Blower Amps								
Influent										
		Time								
		Pipe ID diameter (in.)		3''	Î	3''		3"		
	Differ	ential Pressure (in. H <sub>2</sub> O)		20						
		Vacuum (in. H <sub>2</sub> O)	2	0 11						
		Temperature (°F)	Contraction (Contraction)	2 "						
	То	tal hydrocarbons (ppmv)	4.	2						
		Sample ID #	INFL	UENT	Sample Ti	me				
		Analyses	TPH as G	as, BTEX, l	мтве					
Midpoint										
	То	tal hydrocarbons (ppmv)	0.	0						
		Sample ID #	MIDI	POINT	Sample Ti	me				
		Analyses	TPH as Gas, BTEX, MTBE							
Effluent		×								
Effluent		Time						1		
Effluent		Time Pipe ID diameter (in.)	2	5.1.		2''		2''		
Effluent	Differ			2" 5		2''		2''		
Effluent	Differ	Pipe ID diameter (in.)				2"		2''		
Effluent		Pipe ID diameter (in.) ential Pressure (in. $H_2O$ )	1.5 93			2"		2''		
Effluent		Pipe ID diameter (in.) ential Pressure (in. H <sub>2</sub> O) Temperature (°F)	1.5 93 01	5	Sample Tin			2"		
Effluent		Pipe ID diameter (in.) ential Pressure (in. H <sub>2</sub> O) Temperature (°F) tal hydrocarbons (ppmv) Sample ID #	1, 5 93 0 ( EFFL	5	Sample Tin			2''		
Effluent		Pipe ID diameter (in.) ential Pressure (in. H <sub>2</sub> O) Temperature (°F) tal hydrocarbons (ppmv) Sample ID #	1,5 93 Ou EFFL TPH as Ga	6 UENT	Sample Tin			2" le one)		
Effluent		Pipe ID diameter (in.) ential Pressure (in. H <sub>2</sub> O) Temperature (°F) tal hydrocarbons (ppmv) Sample ID #	1,5 93 Ou EFFL TPH as Ga	6 UENT as, BTEX, 1	Sample Tin		(circ	le one)		
Effluent		Pipe ID diameter (in.) ential Pressure (in. H <sub>2</sub> O) Temperature (°F) tal hydrocarbons (ppmv) Sample ID # Analyses	/ , 5 93 O ( EFFL TPH as Ga (circl	UENT as, BTEX, M	Sample Tin MTBE Monito	ne	(circ	le one)		
Effluent		Pipe ID diameter (in.) ential Pressure (in. H <sub>2</sub> O) Temperature (°F) tal hydrocarbons (ppmv) Sample ID # Analyses Active on arrival?	/ , 5 93 Ou EFFL TPH as Ga (circl Yes	UENT as, BTEX, M e one)	Sample Tin MTBE Monito	ne ring device:	(circ FID PI Yes	le one) D) IR		
		Pipe ID diameter (in.) ential Pressure (in. H <sub>2</sub> O) Temperature (°F) tal hydrocarbons (ppmv) Sample ID # Analyses Active on arrival? Active on departure?	/ , 5 93 Ou EFFL TPH as Ga (circl Yes	UENT as, BTEX, M e one)	Sample Tin MTBE Monito	ne ring device: Dilution Air	(circ FID PI Yes	le one) D) IR		
		Pipe ID diameter (in.) ential Pressure (in. H <sub>2</sub> O) Temperature (°F) tal hydrocarbons (ppmv) Sample ID # Analyses Active on arrival? Active on departure? Shut Down Date	I I J G G EFFL TPH as Ga (circl Yes Yes	<i>O</i> UENT as, BTEX, P e one) No No	Sample Tin MTBE Monito	ne ring device: Dilution Air Restart date:	(circ FID PI Yes	le one) D IR No		
		Pipe ID diameter (in.) ential Pressure (in. H <sub>2</sub> O) Temperature (°F) tal hydrocarbons (ppmv) Sample ID # Analyses Active on arrival? Active on departure? Shut Down Date Name	/ 5 93 D ( EFFL TPH as Ga (circl Yes Yes ZD	S UENT as, BTEX, P e one) No No	Sample Tin MTBE Monito E F	ne ring device: Dilution Air Restart date:	(circ FID PI Yes 10/9/ 10	le one) D IR No 12 15		
	To	Pipe ID diameter (in.) ential Pressure (in. H <sub>2</sub> O) Temperature (°F) tal hydrocarbons (ppmv) Sample ID # Analyses Active on arrival? Active on departure? Shut Down Date Name Pipe ID diameter (in.)	/ 5 93 Ou EFFL TPH as Ga (circl Yes Yes Yes ZD 2"	S UENT as, BTEX, P e one) No No 2 S 2"	Sample Tin MTBE Monito	ne ring device: Dilution Air Restart date: 35 2"	(circ FID FI Yes 10/9/ 10 2"	le one) D) IR No 12 1 2" 2		
Effluent	To	Pipe ID diameter (in.) ential Pressure (in. H <sub>2</sub> O) Temperature (°F) tal hydrocarbons (ppmv) Sample ID # Analyses Active on arrival? Active on departure? Shut Down Date Name Pipe ID diameter (in.) Vacuum (in. H2O)	$\frac{7.5}{9.3}$ $\frac{9.3}{0.1}$ EFFL TPH as Gate (circl) Yes (20) 2" 21	S UENT as, BTEX, P e one) No No 2 S 2" 4	Sample Tin MTBE Monito	ne ring device: Dilution Air Restart date: 35 2" 3	(circ FID PI Yes 10/9/ 10 2" 70	le one) D IR No 12		



Client: Crow Canyon Cleaners

Site: 7272 Crow Canyon Rd Dublin CA Job #: TMDUBLIN

System Parameters		Ar	rival			Dep	arture			
	ur Meter (blower)	236	5.6			236	7,2			
	Blower Amps	2 - 1		7			1			
Influent			andra ann an Airtean Chailtean an Airtean							
	Time			×		Τ				
Pipe	e ID diameter (in.)		3''		3''	/ 3	3''			
Differential 1	Pressure (in. H <sub>2</sub> O)	. 2	ĉ							
,	Vacuum (in. H <sub>2</sub> O)	22	10							
	Temperature (°F)	6	Ø							
Total hyd	rocarbons (ppmv)	7:8	1	112	-					
	Sample ID #									
	Analyses	TPH as G	TPH as Gas, BTEX, MTBE							
Midpoint										
Total hyd	rocarbons (ppmv)	0,0		0.0						
	Sample ID #									
	Analyses	TPH as Gas, BTEX, MTBE								
Effluent										
	Time				.* (					
Pipe	ID diameter (in.)	2" 2"			2''					
Differential I	Pressure (in. H <sub>2</sub> O)	1.5	7							
	Temperature (°F)	93			~					
Total hyd	rocarbons (ppmv)	010		0.0						
	Sample ID #	EFFL	UENT							
	Analyses	TPH as G	as, BTEX, I	МТВЕ						
		(eircl	le one)			(circl	e one)			
	Active on arrival?	Yes	No	Monito	ring device:	FID PI	IR			
Act	ive on departure?	Yes	No		Dilution Air	Yes (	No			
	Shut Down Date				Restart date:		~			
Wells	Name	ZD	25	3D	35	1D	15			
Pipe	ID diameter (in.)	2''	2''	2''	2"	2"	2"			
V	acuum (in. H2O)	18	5	15	5	19	1			
Differential P	ressure (in. H2O)	,48	,027	,36	1032	,39	,02			
	Temperature (°F)	60 -					$\rightarrow$			
Total hydr	ocarbons (ppmv)									

Appendix C

Laboratory Analytical Report for October 2012 Vapor Sampling



McCampbell Analytical, Inc. "When Quality Counts" 1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

## **Analytical Report**

Endpoint	Client Project ID: TM Dublin; Crown Canyon Cleaners	Date Sampled: 10/09/12
1534 Plaza Lane #243		Date Received: 10/10/12
	Client Contact: Mehrdad Javaher	Date Reported: 10/16/12
Burlingame, CA 94010	Client P.O.:	Date Completed: 10/16/12

### WorkOrder: 1210284

October 16, 2012

### Dear Mehrdad:

Enclosed within are:

- 1) The results of the **6** analyzed samples from your project: **TM Dublin; Crown Canyon Cleaners,**
- 2) QC data for the above samples, and
- 3) A copy of the chain of custody.

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

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

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius Laboratory Manager McCampbell Analytical, Inc.

The analytical results relate only to the items tested.

1210284

1534 WILLOV Website: www.t Teleph	McCAMPBELL ANALYTICAL INC. 1534 WILLOW PASS ROAD / PITTS BURG, CA 94565-1701 Website: www.mccampbell.com / Email: main@mccampbell.com Telephone: (877) 252-9262 / Fax: (925) 252-9269 Report To: Mc JAU Attended Bill To: Dopport					CHAIN OF CUSTODY RECORD TURN AROUND TIME RUSH 24 HR 48 HR 72 HR 5 DAY EDF Required? Coelt (Normal) No Write On (DW) No						
Report To: MI JAUR	therei	40	Bill To: DNDO	DONT				Lab Use	Only			
Company: END POI	N+ 1	Cons		Ċ						Pr	essurizati	on Gas
1534 PLAZA	in	#24	3			Pressurized	d By		Date			
Bullingame C	A 94	010	E-Mail: mehei	ADQ ENOPOMA	- Inc					1	N2	He
m 1 / 1. / h	8935	-	Fax: ( )			200						
Project #: Thoo			Project Name: C	clean ens	Helium Shi	roud SN#:						
Project Location: 77 7		SAN	Roman Rd	Dilli	Other:							
Sampler Signature:	11	2	Forman red	WEIN	Notes:		2.)		102		- 0	
Field Sample ID (Location)	Colle	ection	Canister SN#	Manifold / Sampler Kit SN#		por Re Requested	indoor Air	Soil			ssure/Vacu	
	Date	Time					All	Gas	minar	1 mai	Receipt	(psi)
VE-IS	10/9/17	1451	1460	316m-285	TO-15.	- 8010 only	-	X	-29	-4		
VE-25	1	1519	7521-869	316m-983				1	-30	-4		
Vm-955		1548	6205 -746	316m-989					-30	-4		
VM-45		1629	6312	316m-287					-30	-4		
Vm-555		1828	6172	310m-980					-29	-4		
Vm-655	N	1851	6304	316-988	1	/		V	-30	-4		
			'									
Relinquished By:	Date:	Time:	Received By:									
Relinquished By:	Date:	Time:	Received By	Vall	Temp (°C) : Equipment Condition:_ Shipped Via	g	Work Order	#: _1	21028	54		
Relinquished By:	Date:	Time:	Received By:		Simppon th			1.00				

## McCampbell Analytical, Inc.



1534 Willow Pass Rd Pittsburg, CA 94565-1701

## **CHAIN-OF-CUSTODY RECORD**

Page 1 of 1

(925) 252-9262				WorkOr	der: 1210284	Clie	ntCode: EPB		
	WaterTrax	WriteOn	EDF	Excel	EQuIS	🖌 Email	HardCopy	ThirdParty	J-flag
Report to:				Bil	l to:		Req	uested TAT:	5 days
Mehrdad Javaher	Email: m	nehrdad@endpo	pint-inc.com		Accounts Paya	able			
Endpoint	CC:				Endpoint				
1534 Plaza Lane #243	PO:				1534 Plaza La	ne #243	Dat	e Received:	10/10/2012
Burlingame, CA 94010	ProjectNo: T	M Dublin; Crow	n Canyon Cleaner	S	Burlingame, C	A 94010	Dat	e Printed:	10/10/2012
415-706-8935 FAX:									

					Requested Tests (See legend below)											
Lab ID	Client ID	Matrix	Collection Date H	old	1	2	3	4	5	6	7	8	9	10	11	12
1210284-001	VE-1S	Soil Gas	10/9/2012 14:51		А											
1210284-002	VE-2S	Soil Gas	10/9/2012 15:19		А											
1210284-003	VM-9SS	Soil Gas	10/9/2012 15:48		А											
1210284-004	VM-4S	Soil Gas	10/9/2012 16:29		А											
1210284-005	VM-5SS	Soil Gas	10/9/2012 18:28		А											
1210284-006	VM-6SS	Soil Gas	10/9/2012 18:51		А											

#### Test Legend:

1	TO15-8010_SOIL(UG/M3)
6	
11	



4	
9	

5	
10	

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A contain testgroup.

2

7

12

## Prepared by: Melissa Valles

#### **Comments:**

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



## Sample Receipt Checklist

Client Name:	Endpoint				Date an	d Time Received:	10/10/2012 10:36:50 AM				
Project Name:	TM Dublin; Crown C	anyon Cleaners			LogIn R	eviewed by:	Melissa Valles				
WorkOrder N°:	1210284	Matrix: Soil Gas			Carrier:	Client Drop-In					
		<u>Cha</u>	ain of Cu	ustody (COC	<u>) Information () () () () () () () () () () () () () </u>	on					
Chain of custody	present?		Yes	✓	No 🗌						
Chain of custody	signed when relinquis	shed and received?	Yes		No						
Chain of custody agrees with sample labels?			Yes	✓	No 🗌						
Sample IDs noted by Client on COC?			Yes	✓	No						
Date and Time of collection noted by Client on COC?					No						
Sampler's name noted on COC?				✓	No 🗌						
Sample Receipt Information											
Custody seals in	tact on shipping conta	iner/cooler?	Yes		No 🗌		NA 🗹				
Shipping contain	er/cooler in good cond	dition?	Yes	✓	No 🗌						
Samples in prope	er containers/bottles?		Yes	✓	No 🗌						
Sample containe	ers intact?		Yes	✓	No						
Sufficient sample	e volume for indicated	test?	Yes	✓	No 🗌						
		Sample Pres	servatio	n and Hold	<u>Time (HT) Ir</u>	nformation					
All samples rece	ived within holding tim	e?	Yes	✓	No 🗌						
Container/Temp	Blank temperature		Coole	er Temp:			NA 🖌				
Water - VOA vial	ls have zero headspac	ce / no bubbles?	Yes		No 🗌 🛛 🗎	No VOA vials subm	itted 🖌				
Sample labels ch	necked for correct pres	servation?	Yes	✓	No						
Metal - pH accep	otable upon receipt (p⊦	1<2)?	Yes		No 🗌		NA 🗹				
Samples Receive	ed on Ice?		Yes		No 🗹						

\* NOTE: If the "No" box is checked, see comments below.

Comments:

\_\_\_\_\_

\_\_\_\_\_

<u>McCampbell /</u>	•	Inc.	Toll Free Telepho	Pass Road, Pittsburg, CA ne: (877) 252-9262 / Fax:	(925) 252-9269		
When Qua				pbell.com / E-mail: main@	•	n	
Endpoint		roject ID: TM I	Dublin; Crown	Date Sampled:	10/09/12		
1524 Diana Lana #242	Canyon	Cleaners		Date Received: 10/10/12			
1534 Plaza Lane #243	Client C	ontact: Mehrdad	Javaher	Date Extracted:	10/12/12-10/15/12		
Burlingame, CA 94010	Client P.	0.:		Date Analyzed:	10/12/12-1	0/15/12	
Extraction Method: TO15	-	atile Organic C alytical Method: TO15	ompounds in µg	/m <sup>3*</sup>	Work Order:	1210284	
Lab ID	1210284-001A	1210284-002A	1210284-003A	1210284-004A			
Client ID	VE-1S	VE-2S	VM-4S	Reporting DF			
Matrix	Soil Gas	Soil Gas	Soil Gas	Soil Gas	-		
DF	1	1	1	1			
Initial Pressure (psia)	12.28	13.48	13.04	13.17	Soil Gas	W	
Final Pressure (psia)	24.46	26.88	25.99	26.26	-		
Compound	210		ntration	23.20	µg/m³	ug/L	
-	ND			ND		0	
Bromodichloromethane Bromoform	ND ND	ND	ND ND	ND ND	14 21	NA NA	
Bromonorm Bromomethane	ND ND	ND ND	ND ND	ND ND	7.9	NA NA	
Carbon Tetrachloride	ND	ND	ND	ND	13	NA	
Chlorobenzene	ND	ND	ND	ND	9.4	NA	
Chloroethane	ND	ND	ND	ND	5.4	NA	
Chloroform	ND	ND	ND	ND	9.9	NA	
Chloromethane	ND	ND	ND	ND	4.2	NA	
Dibromochloromethane	ND	ND	ND	ND	17	NA	
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	16	NA	
1,2-Dichlorobenzene	ND	ND	ND	ND	12	NA	
1,3-Dichlorobenzene	ND	ND	ND	ND	12	NA	
1,4-Dichlorobenzene	ND	ND	ND	ND	12	NA	
Dichlorodifluoromethane	ND	ND	ND	ND	10	NA	
1,1-Dichloroethane	ND	ND	ND	ND	8.2	NA	
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND	ND	8.2	NA	
1,1-Dichloroethene cis-1,2-Dichloroethene	ND ND	ND ND	ND ND	ND ND	8.1 8.1	NA NA	
trans-1,2-Dichloroethene	ND	ND	ND	ND	8.1	NA	
1,2-Dichloropropane	ND	ND	ND	ND	9.4	NA	
cis-1,3-Dichloropropene	ND	ND	ND	ND	9.4	NA	
trans-1,3-Dichloropropene	ND	ND	ND	ND	9.2	NA	
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ND	ND	14	NA	
Freon 113	ND	ND	ND	ND	16	NA	
Methylene chloride	ND	ND	ND	ND	7.1	NA	
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	14	NA	
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	14	NA	
Tetrachloroethene	41	35	280	22	14	NA	
1,2,4-Trichlorobenzene	ND	ND	ND	ND	15	NA	
1,1,1-Trichloroethane	ND ND	ND	ND	ND	11	NA	
1,1,2-Trichloroethane Frichloroethene	ND ND	ND ND	ND 13	ND ND	11 11	NA	
Trichlorofluoromethane	ND ND	ND	ND	ND ND	11	NA NA	
Vinyl Chloride	ND	ND	ND	ND	5.2	NA	
		rogate Recoveries (			3.2	11/1	
%SS1:	97	98	97	98			
%SS2:	96	95	95	95	1		
%SS3:	100	99	98	99	1		
%333:							

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

# surrogate diluted out of range or surrogate coelutes with another peak.

<u>McCampbell</u> "When Qua	lity Counts"			one: (877) 252-9262 / Fax: npbell.com / E-mail: main@		n	
Endpoint	Client Pr	oject ID: 7	TM Dublin; Crown	Date Sampled:	10/09/12		
1	Canyon			Date Received: 10/10/12			
1534 Plaza Lane #243	Client C	ontact: Mel	hrdad Javaher	Date Extracted: 10/12/12-10/15/12			
Burlingame, CA 94010				Date Analyzed:			
		Client P.O.: Date Anal					
Extraction Method: TO15	-	alytical Method:	- ·	g/m².	Work Order:	1210284	
Lab ID		1210284-0					
Client ID	1210284-005A VM-5SS	1210284-0 VM-6S			Reporting	Limit for	
Cheff ID	V IVI-555	v IvI-05	3		DF		
Matrix	Soil Gas	Soil Ga	IS		-		
DF	1	1			- I		
Initial Pressure (psia)	13.06	13.48			Soil Gas	W	
Final Pressure (psia)	26.03	26.89			-		
Compound	20.05		Concentration		µg/m³	ug/L	
-			concentration			-	
Bromodichloromethane	ND	ND			14	NA	
Bromoform	ND	ND			21	NA	
Bromomethane	ND ND	ND			7.9	NA	
Carbon Tetrachloride	ND	ND			13	NA	
Chlorobenzene Chloroethane	ND ND	ND			9.4 5.4	NA NA	
Chloroform	ND ND	ND ND			9.9	NA NA	
Chloromethane	ND	ND			4.2	NA	
Dibromochloromethane	ND	ND			17	NA	
1,2-Dibromoethane (EDB)	ND	ND			16	NA	
1,2-Dichlorobenzene	ND	ND			12	NA	
1,3-Dichlorobenzene	ND	ND			12	NA	
1,4-Dichlorobenzene	ND	ND			12	NA	
Dichlorodifluoromethane	ND	ND			10	NA	
1,1-Dichloroethane	ND	ND			8.2	NA	
1,2-Dichloroethane (1,2-DCA)	ND	ND			8.2	NA	
1,1-Dichloroethene	ND	ND			8.1	NA	
cis-1,2-Dichloroethene	ND	ND			8.1	NA	
trans-1,2-Dichloroethene	ND	ND			8.1	NA	
1,2-Dichloropropane	ND	ND			9.4	NA	
cis-1,3-Dichloropropene trans-1,3-Dichloropropene	ND ND	ND ND			9.2 9.2	NA NA	
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND			9.2	NA	
Freon 113	ND	ND			14	NA	
Methylene chloride	ND	ND			7.1	NA	
1,1,2-Tetrachloroethane	ND	ND			14	NA	
,1,2,2-Tetrachloroethane	ND	ND			14	NA	
Fetrachloroethene	68	11	0		14	NA	
1,2,4-Trichlorobenzene	ND	ND			15	NA	
1,1,1-Trichloroethane	ND	ND			11	NA	
,1,2-Trichloroethane	ND	ND			11	NA	
Trichloroethene	ND	ND			11	NA	
Frichlorofluoromethane	ND	ND			11	NA	
Vinyl Chloride	ND	ND	(0/)		5.2	NA	
0/ 991		rogate Recov	eries (%)		1		
%SS1:	116	97			<u> </u>		
%SS2:	95	96					
%SS3: Comments	95	98			I		
				1			

Surrogate Standard; DF = Dilution Factor

# surrogate diluted out of range or surrogate coelutes with another peak.

۵Ż	McCampbell A "When Qualit	al, Inc.	Toll Free	e Telephor	Pass Road, Pittsburg, CA 94565-170 ne: (877) 252-9262 / Fax: (925) 252- obell.com / E-mail: main@mccampbe	9269			
Endp	oint			TM Dublin; Cro	own	Date Sampled: 10/09/	'12		
1534	Plaza Lane #243	Canyo	n Cleaners			Date Received: 10/10/	/12		
1554	Tuzu Dune #2+3	Client	Contact: Me	hrdad Javaher		Date Extracted: 10/12	/12-10/1	5/12	
Burli	ngame, CA 94010	Client	P.O.:			Date Analyzed: 10/12/	/12-10/1	5/12	
Extracti	on method: TO15			neck Compoun ical methods: TO15			Work	Order: 12	210284
Lab ID	Client ID	Matrix	Initial Pressure	Final Pressure		Isopropyl Alcohol	DF	% SS	Comments
001A	VE-1S	Soil Gas	12.28	24.46		ND	1	N/A	
002A	VE-2S	Soil Gas	13.48	26.88		ND	1	N/A	
003A	VM-9SS	Soil Gas	13.04	25.99		ND	1	N/A	
004A	VM-4S	Soil Gas	13.17	26.26		ND	1	N/A	
005A	VM-5SS	Soil Gas	13.06	26.03		ND	1	N/A	
006A	VM-6SS	Soil Gas	13.48	26.89		ND	1	N/A	
	Reporting Limit for DF =1; ND means not detected at or	W	psia	psia		NA			NA
	above the reporting limit	SoilGas	psia	psia		50		ŀ	ug/m³

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

The (liquid) Leak Check reference is:

DTSC, Advisory-Active Soil Gas Investigations, April 2012, page 17, section 4.2.2.1:

"The laboratory reports should quantify and annotate all detections of the leak check compound at the reporting limit of the target analytes."

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

Angela Rydelius, Lab Manager



NONE

W.O. Sample Matrix: Soilgas

WorkOrder: 1210284

## QC SUMMARY REPORT FOR TO15 QC Matrix: Soilgas BatchID: 71607

EPA Method: TO15	Extraction: TO15					;	Spiked Sam	ple ID:	N/A	
Analyte	Sampl	Sample Spiked MS N		MSD	MSD MS-MSD		Acceptance Criteria (%)			
, indigite	nL/L	nL/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
Chlorobenzene	N/A	25	N/A	N/A	N/A	82.4	N/A	N/A	60 - 140	
1,2-Dibromoethane (EDB)	N/A	25	N/A	N/A	N/A	80.3	N/A	N/A	60 - 140	
1,2-Dichloroethane (1,2-DCA)	N/A	25	N/A	N/A	N/A	94.9	N/A	N/A	60 - 140	
1,2-Dichloro-1,1,2,2-tetrafluoroethane	N/A	25	N/A	N/A	N/A	68.2	N/A	N/A	60 - 140	
Freon 113	N/A	25	N/A	N/A	N/A	106	N/A	N/A	60 - 140	
Methylene chloride	N/A	25	N/A	N/A	N/A	105	N/A	N/A	60 - 140	
1,1,1,2-Tetrachloroethane	N/A	25	N/A	N/A	N/A	90.1	N/A	N/A	60 - 140	
1,1,2,2-Tetrachloroethane	N/A	25	N/A	N/A	N/A	79.6	N/A	N/A	60 - 140	
1,2,4-Trichlorobenzene	N/A	25	N/A	N/A	N/A	102	N/A	N/A	60 - 140	
Trichloroethene	N/A	25	N/A	N/A	N/A	87.4	N/A	N/A	60 - 140	
%SS1:	N/A	500	N/A	N/A	N/A	109	N/A	N/A	60 - 140	
%SS2:	N/A	500	N/A	N/A	N/A	97	N/A	N/A	60 - 140	
%SS3:	N/A	500	N/A	N/A	N/A	101	N/A	N/A	60 - 140	

#### BATCH 71607 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1210284-001A	10/09/12 2:51 PM	10/12/12	10/12/12 7:04 PM	1210284-002A	10/09/12 3:19 PM	10/12/12	10/12/12 7:45 PM
1210284-003A	10/09/12 3:48 PM	10/15/12	10/15/12 4:59 PM	1210284-004A	10/09/12 4:29 PM	10/12/12	10/12/12 9:06 PM
1210284-005A	10/09/12 6:28 PM	10/12/12	10/12/12 9:47 PM	1210284-006A	10/09/12 6:51 PM	10/12/12	10/12/12 10:28 PM

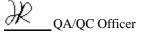
MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

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

\* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate. NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.





W.O. Sample Matrix: Soilgas

## mp// www.incompon.com/ D main/

## QC SUMMARY REPORT FOR TO15 QC Matrix: Soilgas BatchID: 71607

WorkOrder: 1210284

EPA Method: TO15	Extraction: TO15	Spiked Sample ID: N/A								
Analyte	Sampl	e Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
, indigite	nL/L	nL/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
Acrylonitrile	N/A	25	N/A	N/A	N/A	131	N/A	N/A	60 - 140	
tert-Amyl methyl ether (TAME)	N/A	25	N/A	N/A	N/A	79.7	N/A	N/A	60 - 140	
Benzene	N/A	25	N/A	N/A	N/A	82.9	N/A	N/A	60 - 140	
Benzyl chloride	N/A	25	N/A	N/A	N/A	75.8	N/A	N/A	60 - 140	
Bromodichloromethane	N/A	25	N/A	N/A	N/A	88.7	N/A	N/A	60 - 140	
Bromoform	N/A	25	N/A	N/A	N/A	89.4	N/A	N/A	60 - 140	
t-Butyl alcohol (TBA)	N/A	25	N/A	N/A	N/A	122	N/A	N/A	60 - 140	
Carbon Disulfide	N/A	25	N/A	N/A	N/A	93	N/A	N/A	60 - 140	
Carbon Tetrachloride	N/A	25	N/A	N/A	N/A	100	N/A	N/A	60 - 140	
Chlorobenzene	N/A	25	N/A	N/A	N/A	82.4	N/A	N/A	60 - 140	
Chloroethane	N/A	25	N/A	N/A	N/A	121	N/A	N/A	60 - 140	
Chloroform	N/A	25	N/A	N/A	N/A	87.8	N/A	N/A	60 - 140	
Chloromethane	N/A	25	N/A	N/A	N/A	69.2	N/A	N/A	60 - 140	
Dibromochloromethane	N/A	25	N/A	N/A	N/A	89.7	N/A	N/A	60 - 140	
1,2-Dibromo-3-chloropropane	N/A	25	N/A	N/A	N/A	88.9	N/A	N/A	60 - 140	
1,2-Dibromoethane (EDB)	N/A	25	N/A	N/A	N/A	80.3	N/A	N/A	60 - 140	
1,2-Dichlorobenzene	N/A	25	N/A	N/A	N/A	79.2	N/A	N/A	60 - 140	
1,3-Dichlorobenzene	N/A	25	N/A	N/A	N/A	80.2	N/A	N/A	60 - 140	
1,4-Dichlorobenzene	N/A	25	N/A	N/A	N/A	80.6	N/A	N/A	60 - 140	
Dichlorodifluoromethane	N/A	25	N/A	N/A	N/A	76.4	N/A	N/A	60 - 140	
1,1-Dichloroethane	N/A	25	N/A	N/A	N/A	94.7	N/A	N/A	60 - 140	
1,2-Dichloroethane (1,2-DCA)	N/A	25	N/A	N/A	N/A	94.9	N/A	N/A	60 - 140	
1,1-Dichloroethene	N/A	25	N/A	N/A	N/A	102	N/A	N/A	60 - 140	
cis-1,2-Dichloroethene	N/A	25	N/A	N/A	N/A	80.9	N/A	N/A	60 - 140	
trans-1,2-Dichloroethene	N/A	25	N/A	N/A	N/A	81.9	N/A	N/A	60 - 140	
1,2-Dichloropropane	N/A	25	N/A	N/A	N/A	79.8	N/A	N/A	60 - 140	
cis-1,3-Dichloropropene	N/A	25	N/A	N/A	N/A	79.8	N/A	N/A	60 - 140	
trans-1,3-Dichloropropene	N/A	25	N/A	N/A	N/A	82.6	N/A	N/A	60 - 140	
1,2-Dichloro-1,1,2,2-tetrafluoroethane	N/A	25	N/A	N/A	N/A	68.2	N/A	N/A	60 - 140	
Diisopropyl ether (DIPE)	N/A	25	N/A	N/A	N/A	86.3	N/A	N/A	60 - 140	
1,4-Dioxane	N/A	25	N/A	N/A	N/A	80.8	N/A	N/A	60 - 140	

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

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

\* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

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

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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QA/QC Officer



W.O. Sample Matrix: Soilgas

## QC SUMMARY REPORT FOR TO15 QC Matrix: Soilgas BatchID: 71607

WorkOrder: 1210284

EPA Method: TO15	Extraction: TO15		Spiked Sample ID: N/A								
Analyte	Sample	Spiked nL/L	MS % Rec.	MSD % Rec.	MS-MSD % RPD	LCS % Rec.	Acceptance Criteria (%)				
, and yes	nL/L						MS / MSD	RPD	LCS		
Ethyl acetate	N/A	25	N/A	N/A	N/A	83.5	N/A	N/A	60 - 140		
Ethyl tert-butyl ether (ETBE)	N/A	25	N/A	N/A	N/A	84	N/A	N/A	60 - 140		
Ethylbenzene	N/A	25	N/A	N/A	N/A	80.7	N/A	N/A	60 - 140		
Freon 113	N/A	25	N/A	N/A	N/A	106	N/A	N/A	60 - 140		
Hexachlorobutadiene	N/A	25	N/A	N/A	N/A	98.1	N/A	N/A	60 - 140		
Isopropyl Alcohol	N/A	25	N/A	N/A	N/A	126	N/A	N/A	60 - 140		
4-Methyl-2-pentanone (MIBK)	N/A	25	N/A	N/A	N/A	84.7	N/A	N/A	60 - 140		
Methyl-t-butyl ether (MTBE)	N/A	25	N/A	N/A	N/A	88.1	N/A	N/A	60 - 140		
Methylene chloride	N/A	25	N/A	N/A	N/A	105	N/A	N/A	60 - 140		
Naphthalene	N/A	25	N/A	N/A	N/A	106	N/A	N/A	60 - 140		
Styrene	N/A	25	N/A	N/A	N/A	81.4	N/A	N/A	60 - 140		
1,1,1,2-Tetrachloroethane	N/A	25	N/A	N/A	N/A	90.1	N/A	N/A	60 - 140		
1,1,2,2-Tetrachloroethane	N/A	25	N/A	N/A	N/A	79.6	N/A	N/A	60 - 140		
Tetrachloroethene	N/A	25	N/A	N/A	N/A	82.5	N/A	N/A	60 - 140		
Tetrahydrofuran	N/A	25	N/A	N/A	N/A	72	N/A	N/A	60 - 140		
Toluene	N/A	25	N/A	N/A	N/A	82.7	N/A	N/A	60 - 140		
1,2,4-Trichlorobenzene	N/A	25	N/A	N/A	N/A	102	N/A	N/A	60 - 140		
1,1,1-Trichloroethane	N/A	25	N/A	N/A	N/A	92.2	N/A	N/A	60 - 140		
1,1,2-Trichloroethane	N/A	25	N/A	N/A	N/A	82.2	N/A	N/A	60 - 140		
Trichloroethene	N/A	25	N/A	N/A	N/A	87.4	N/A	N/A	60 - 140		
1,2,4-Trimethylbenzene	N/A	25	N/A	N/A	N/A	83	N/A	N/A	60 - 140		
1,3,5-Trimethylbenzene	N/A	25	N/A	N/A	N/A	90	N/A	N/A	60 - 140		
Vinyl Chloride	N/A	25	N/A	N/A	N/A	70	N/A	N/A	60 - 140		
%SS1:	N/A	500	N/A	N/A	N/A	109	N/A	N/A	60 - 140		
%SS2:	N/A	500	N/A	N/A	N/A	97	N/A	N/A	60 - 140		
%SS3:	N/A	500	N/A	N/A	N/A	101	N/A	N/A	60 - 140		

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

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

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N/A = not enough sample to perform matrix spike and matrix spike duplicate. NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

QA/QC Officer



# QC SUMMARY REPORT FOR TO15

W.O. Sample Matrix: Soilgas			QC Matrix: Soilgas				BatchID: 71607			WorkOrder: 1210284		
EPA Method: TO	15	Extraction: T	O15				Spiked Sample ID: N/A					
Analyte			Sample	Spiked	MS	MSD	MS-MSD LCS Acceptance Criteria (%			e Criteria (%)		
			nL/L	nL/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
BATCH 71607 SUMMARY												
Lab ID	Date Sampled	Date Extracted	Date Anal	yzed	Lab ID		Date Sampled		Date Extracted		Date Analyzed	
1210284-001A	10/09/12 2:51 PM	10/12/12	10/12/12 7	:04 PM	1210284-002A		10/09/12 3:19 P		PM 10/12/12		10/12/12 7:45 PM	
1210284-003A	10/09/12 3:48 PM	10/15/12	10/15/12 4	:59 PM	1210284-0	004A	10/09	9/12 4:29 P	M 10/1	12/12	10/12/12 9:06 PM	
1210284-005A	10/09/12 6:28 PM	10/12/12	10/12/12 9	:47 PM	1210284-0	)06A	10/09	9/12 6:51 P	M 10/1	12/12	10/12/12 10:28 PM	

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

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

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