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By Alameda County Environmental Health at 4:48 pm, Sep 09, 2013

September, 6, 2013

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

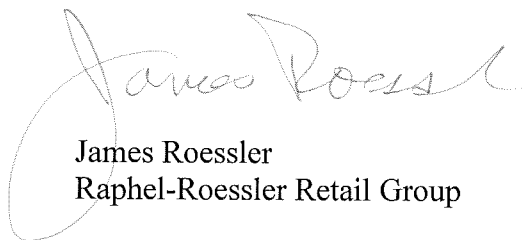
Subject: Soil Vapor Extraction Remediation Startup Report
Crow Canyon Dry Cleaners
7272 San Ramon Road Dublin, CA
RO# 000283

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 James Roessler.

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,



James Roessler
Raphel-Roessler Retail Group

September 6, 2013

Mr. Dilan Roe
Hazardous Materials Specialist
Alameda County Health Care Services Agency (County)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Subject: Semi-Annual Post-Remediation Vapor Monitoring 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 results of the first of two semi-annual post-remediation vapor monitoring events conducted at the above-referenced site. This report follows the soil vapor extraction (SVE) startup report submitted to the County in October 2012, and represents soil vapor sampling approximately 5 months following termination of the SVE operations performed in concert with the County-approved Corrective Action Plan (CAP) for the site. This is the first of two post remediation semi-annual vapor monitoring reports planned for the site.

Background

The site is an active dry cleaner set 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. Historical resources and site reconnaissance have revealed that the unit encompassing 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. This space was historically occupied by a Montessori School serving preschool children; the Montessori School has since moved out of this space and this suite has remained unoccupied since February 2013.

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 suite formerly occupied by 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 for the sole chemical of potential concern (COC), tetrachloroethene (PCE), present at the site; one cleanup goal corresponded to the continued use of the adjacent suite as a Montessori School (represented by a residential cleanup goal of 410 ug/m³), and the second cleanup goal corresponding to commercial use of the adjacent suite (1,400 ug/m³) based on the planned departure of the Montessori School from the adjacent suite. In concert with the CAP and per discussions with the County, since the Montessori School has moved from the adjacent suite in early 2013, the cleanup goal applicable to the site is 1,400 ug/m³, corresponding to the commercial/industrial shallow soil vapor environmental screening level (ESL) adopted by the San Francisco Bay Regional Water Quality Control Board ([Water Board], 2007)¹.

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. The results of that sampling was documented in the SVE startup report dated October 29, 2012. The SVE operations were continued through March 2013, when the SVE system was terminated, in concert with the CAP, due to diminishing vapor mass removal rates. At the time of system termination, more than 15 pounds of PCE had been removed from the site between June 2012 through March 2013.

This report summarizes the results of soil vapor sampling conducted in August 2013, approximately 5 months after termination of SVE operations in March 2013.

SOIL VAPOR SAMPLING ACTIVITIES

On August 23, 2013, Endpoint performed soil vapor sampling activities at key monitoring and extraction wells, approximately 5 months after termination of the SVE operations. The wells sampled included VE-1S, VE-2S, VM-4S, VM-5SS, VM-6SS, and VM-9SS (see Figure 1 for well locations). Vapor sampling protocols, including shut-in testing, leak testing, and purge volume testing procedures following DTSC guidance, were implemented following the procedures previously approved by the County and implemented at this site in support of past monitoring events. The laboratory analytical report for this sampling is included as Attachment A, while the field data sheets are included as Attachment B.

Figure 1 summarizes the vapor sampling results for the August 2013 monitoring event, while Table 1 summarizes the results of vapor sampling conducted at the site since July 2009, when SVE was first implemented at the site as an interim remedial action (IRA) measure. The table includes results of post-IRA SVE sampling through June 2012. This sampling was then followed by the October 2012 sampling following restart of the SVE system in concert with the CAP. Lastly, the table includes the results of the post-SVE monitoring event documented in this report and performed in August 2013.

As indicated in Table 1, the August 2013 post-remediation sampling conducted approximately 5 months

¹ Water Board, 2007. Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater. Interim Final, November (Revised May 2008).

after termination of the SVE system indicates that PCE concentrations remain below the PCE commercial/industrial cleanup goal of 1,400 ug/m³ at five of the six sampled locations; the sole well containing PCE above the commercial/industrial ESL is VE-1S with PCE reported at 2,100 ug/m³. VE-1S is one of the site's vapor extraction wells located in the suspected release area and has historically contained PCE as high as 19,000 ug/m³ (see Table 1). All other PCE concentrations detected at the site remain below the cleanup goal. It should also be noted that trichloroethylene (TCE) was also detected in two of the site samples, at a maximum concentration of 32 ug/m³ (see Attachment A), which is well below both the residential (1,200 ug/m³) and commercial (4,100 ug/m³) shallow soil vapor ESLs (Water Board, 2007).

DISCUSSION AND CONCLUSIONS

The results of the post-remediation vapor sampling conducted in August 2013 and approximately 5 months following termination of the SVE operations indicate that a significant decline has occurred in PCE concentrations across all wells sampled relative to the pre-remediation samples collected in June 2012, which included PCE as high as 12,000 ug/m³ in VE-1S (see Table 1). Some rebound in PCE concentrations has occurred relative to the October 2013 vapor samples collected three months into the SVE operations (see Table 1); however, at this time, only a single well (VE-1S) contains PCE at a level (2,100 ug/m³) which exceeds the cleanup goal of 1,400 ug/m³.


PLANNED ACTIVITIES

In concert with the CAP, the second post-remediation vapor monitoring event is scheduled for February 2013.

CLOSING

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

Sincerely,
Endpoint Consulting, Inc.


Mehrdad Javaherian, Ph.D., MPH, PE, LEED® GA
Program Manager



Attachments:

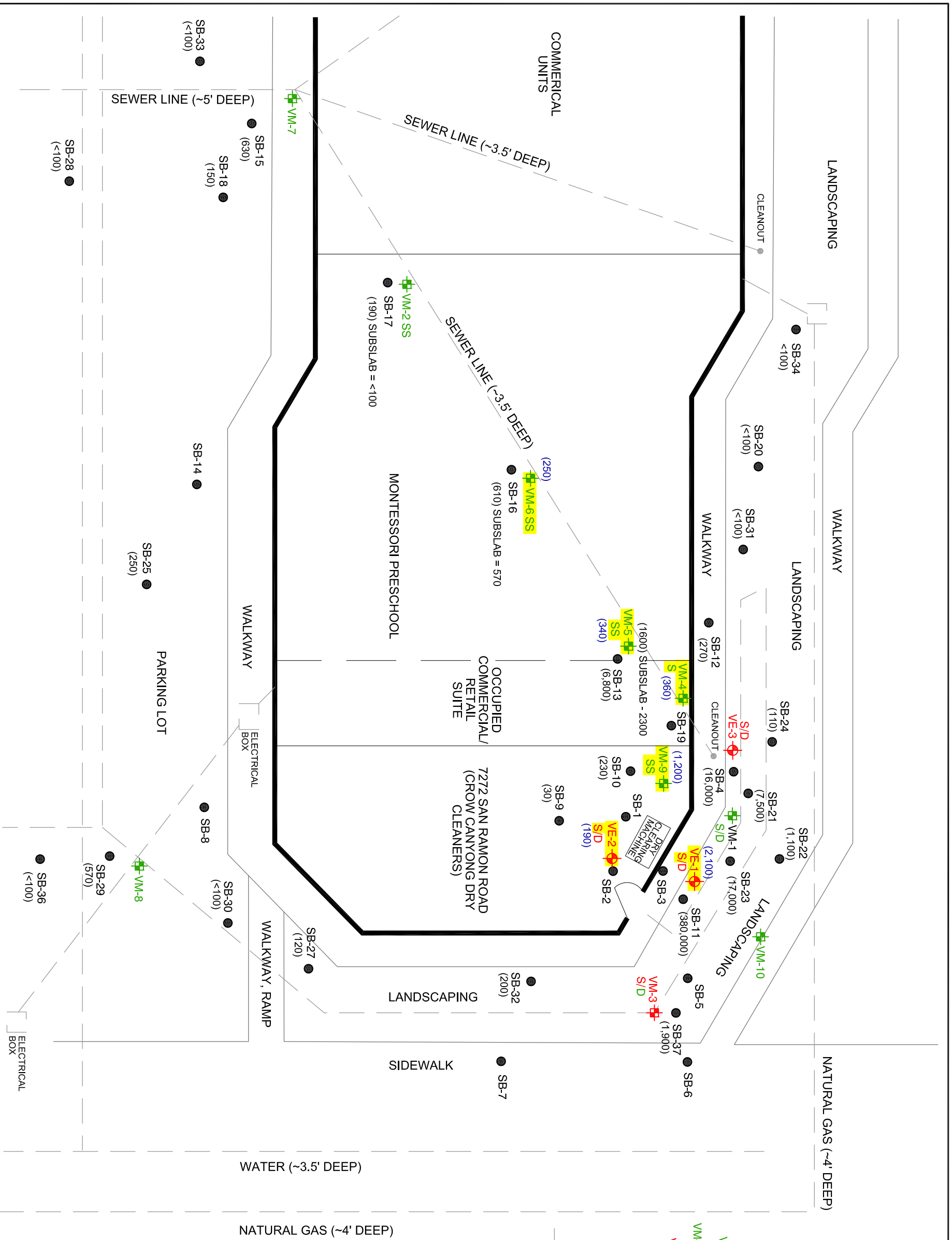
Table 1 - PCE Analytical Results in Soil Vapor

Figure 1 – Vapor Monitoring Results

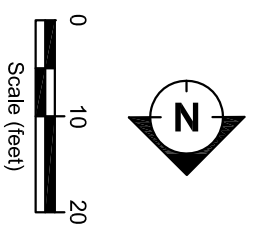
Attachment A – Laboratory Analytical Report for August 2013 Vapor Sampling

Attachment B – Field Data Sheets

Figure



- LEGEND:**
- VM-4 Vapor Monitoring Well
 - VM-2SS Sub-Slab Vapor Monitoring Well (2010)
 - VE-1 Soil Vapor Extraction Well Locations
 - SB-1 Historical Soil Vapor Boring Locations (2006-2008)
 - S/D Shallow Well Screen/Deep Well Screen
 - SS Sub-Slab Well Screen
 - Utility Line
 - (2,100) PCE Concentration ($\mu\text{g}/\text{m}^3$) in soil vapor (August 2013)
 - (6,800) PCE Concentration ($\mu\text{g}/\text{m}^3$) in soil vapor (2008)
 - Wells monitored



Reference: Base map from drawing titled "PCE Concentrations In Soil Vapor", by Ceres, dated April 2008.

VAPOR MONITORING RESULTS

CROW CANYON DRY CLEANERS
7272 SAN RAMON ROAD
DUBLIN, CALIFORNIA

Table

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

Well I.D.	PCE Concentrations (ug/m ³)								
	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 after SVE restart**	08/23/2013 ~ 5 months after shutdown of SVE system
VE-1S	1,200	23	<14	970	1,100	19,000	12,000	41	2,100
VE-1D	420	300	<14	770	NS	NS	4,500	NS	NS
VE-2S	5,900	<14	200	500	3,400	13,000	14,000	35	190
VE-2D	1,100	<14	<14	350	NS	NS	5,100	NS	NS
VE-3S	2,200	30	38	<14	870	260	<500	NS	NS
VE-3D	3,800	24	51	<14	NS	NS	790	NS	NS
VM-1S	<73	-	<14	20	2,600	580	1,200	NS	NS
VM-1D	160	-	16	140	NS	NS	520	NS	NS
VM-3S	8,100	-	55	81	NS	NS	NS	NS	NS
VM-3D	34J	-	<14	300	NS	NS	NS	NS	NS
VM-4S	10,000	-	180	310	1,100	1,100	2,100	22	360
VM-5SS	-	-	-	-	1,300	1,100	NS	68	340
VM-6SS	-	-	-	-	650	390	NS	110	250
VM-2SS	-	-	-	-	28	<14	NS	NS	NS
VM-7	-	-	-	-	310	<14	240	NS	NS
VM-8	-	-	-	-	1,300	640	820	NS	NS
VM-9SS	-	-	-	-	11,000	14,000	7,200	280	1,200
VM-10	-	-	-	-	450	210	NS	NS	NS
ESLs Commercial/Industrial Land Use: 1,400 ug/m3									

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

** system shutdown one week before sampling

NS = Not Sampled

Value exceeds the Commercial/Industrial ESL

Attachment A

Laboratory Analytical Report for August 2013 Vapor Sampling



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1308864

Report Created for: Endpoint
1534 Plaza Lane #243
Burlingame, CA 94010

Project Contact: Mehrdad Javaher
Project Name: TM Dublin, Crow Canyon Rd
Project P.O.:

Project Received: 08/23/2013

Analytical Report reviewed & approved for release on 09/03/2013 by:

Question about
your data?

[Click here to email
McC Campbell](#)

Angela Rydelius,
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: Endpoint
Project: TM Dublin, Crow Canyon Rd
WorkOrder: 1308864

<u>Glossary Abbreviation</u>	<u>Description</u>
DF	Dilution Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
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.
RL	Reporting Limit
RPD	Relative Percent Deviation
SPK Val	Spike Value
SPKRef Val	Spike Reference Value



McC Campbell 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.mcccampbell.com / E-mail: main@mcccampbell.com

Endpoint 1534 Plaza Lane #243 Burlingame, CA 94010	Client Project ID: TM Dublin, Crow Canyon Rd	Date Sampled: 08/23/13
		Date Received: 08/23/13
	Client Contact: Mehrdad Javaher	Date Reported: 09/03/13
	Client P.O.:	Date Completed: 09/03/13

Work Order: 1308864

September 03, 2013

CASE NARRATIVE REGARDING TO-15 ANALYSIS

All summa canisters are EVACUATED 5 days after the reporting of the results. Please call or email if a longer retention time is required.

In an effort to attain the lowest reporting limits possible for the majority of the TO-15 target list, high level compounds may be analyzed using EPA Method 8260B.

Polymer (Tedlar) bags are not recommended for TO15 samples. The disadvantages are listed in Appendix B of the DTSC Advisory of April 2012.



Endpoint 1534 Plaza Lane #243 Burlingame, CA 94010	Client Project ID: TM Dublin, Crow Canyon Rd	Date Sampled: 08/23/13
	Client Contact: Mehrdad Javaher	Date Received: 08/23/13
	Client P.O.:	Date Extracted: 08/27/13-08/29/13
		Date Analyzed: 08/27/13-08/29/13

TPH gas + Volatile Organic Compounds in µg/m³*

Extraction Method: TO15

Analytical Method: TO15

Work Order: 1308864

Lab ID	1308864-001A	1308864-002A	1308864-003A	1308864-004A	Reporting Limit for DF =1	
Client ID	VE-2S	VE-1S	VM-9SS	VM-4S	Soil Gas	W
Matrix	Soil Gas	Soil Gas	Soil Gas	Soil Gas		
DF	1	1	1	1		
Initial Pressure (psia)	12.83	13.08	13.18	12.93		
Final Pressure (psia)	25.56	26.07	26.28	25.76		

Compound	Concentration				µg/m ³	ug/L
Bromodichloromethane	ND	ND	ND	ND	3.5	NA
Bromoform	ND<5.2	ND<5.2	ND<5.2	ND<5.2	5.25	NA
Bromomethane	ND<2.0	ND<2.0	ND<2.0	ND<2.0	1.95	NA
Carbon Tetrachloride	ND	ND	ND	ND	3.2	NA
Chlorobenzene	ND<2.4	ND<2.4	ND<2.4	ND<2.4	2.35	NA
Chloroethane	ND<1.3	ND<1.3	ND<1.3	2.1	1.34	NA
Chloroform	ND<2.4	ND<2.4	ND<2.4	ND<2.4	2.45	NA
Chloromethane	ND<1.0	ND<1.0	ND<1.0	ND<1.0	1.05	NA
Dibromochloromethane	ND<4.4	ND<4.4	ND<4.4	ND<4.4	4.35	NA
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	3.9	NA
1,2-Dichlorobenzene	ND<3.0	ND<3.0	ND<3.0	ND<3.0	3.05	NA
1,3-Dichlorobenzene	ND<3.0	ND<3.0	ND<3.0	ND<3.0	3.05	NA
1,4-Dichlorobenzene	ND<3.0	ND<3.0	ND<3.0	ND<3.0	3.05	NA
Dichlorodifluoromethane	ND	ND	2.5	2.7	2.5	NA
1,1-Dichloroethane	ND<2.0	ND<2.0	ND<2.0	ND<2.0	2.05	NA
1,2-Dichloroethane (1,2-DCA)	ND<2.0	ND<2.0	ND<2.0	ND<2.0	2.05	NA
1,1-Dichloroethene	ND	ND	ND	ND	2.0	NA
cis-1,2-Dichloroethene	ND	ND	4.4	ND	2.0	NA
trans-1,2-Dichloroethene	ND	ND	3.2	ND	2.0	NA
1,2-Dichloropropane	ND<2.4	ND<2.4	ND<2.4	ND<2.4	2.35	NA
cis-1,3-Dichloropropene	ND	ND	ND	ND	2.3	NA
trans-1,3-Dichloropropene	ND	ND	ND	ND	2.3	NA
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND<3.6	ND<3.6	ND<3.6	ND<3.6	3.55	NA
Freon 113	ND	ND	ND	ND	3.9	NA
Methylene chloride	ND<1.8	ND<1.8	ND<1.8	ND<1.8	1.75	NA
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	3.5	NA
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	3.5	NA
Tetrachloroethene	190	2100	1200	360	3.45	NA
1,2,4-Trichlorobenzene	ND<3.8	ND<3.8	ND<3.8	ND<3.8	3.75	NA
1,1,1-Trichloroethane	ND<2.8	ND<2.8	ND<2.8	ND<2.8	2.75	NA
1,1,2-Trichloroethane	ND<2.8	ND<2.8	ND<2.8	ND<2.8	2.75	NA
Trichloroethene	ND<2.8	10	32	ND<2.8	2.75	NA
Trichlorofluoromethane	ND<2.8	ND<2.8	ND<2.8	ND<2.8	2.85	NA
Vinyl Chloride	ND	ND	ND	ND	1.3	NA

Surrogate Recoveries (%)

%SS1:	116	115	116	114	
%SS2:	115	116	116	113	
%SS3:	114	111	114	117	

Comments

*vapor samples are reported in µg/m³.

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 surrogate coelutes with another peak.

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



Endpoint 1534 Plaza Lane #243 Burlingame, CA 94010	Client Project ID: TM Dublin, Crow Canyon Rd	Date Sampled: 08/23/13
	Client Contact: Mehrdad Javaher	Date Received: 08/23/13
	Client P.O.:	Date Extracted: 08/27/13-08/29/13
		Date Analyzed: 08/27/13-08/29/13

TPH gas + Volatile Organic Compounds in µg/m³*

Extraction Method: TO15

Analytical Method: TO15

Work Order: 1308864

Lab ID	1308864-005A	1308864-006A			Reporting Limit for DF =1
Client ID	VM-5SS	VM-6SS			
Matrix	Soil Gas	Soil Gas			
DF	1	1			Soil Gas
Initial Pressure (psia)	13.21	13.42			
Final Pressure (psia)	26.32	26.75			

Compound	Concentration		µg/m ³	ug/L
Bromodichloromethane	ND	ND	3.5	NA
Bromoform	ND<5.2	ND<5.2	5.25	NA
Bromomethane	ND<2.0	ND<2.0	1.95	NA
Carbon Tetrachloride	ND	ND	3.2	NA
Chlorobenzene	ND<2.4	ND<2.4	2.35	NA
Chloroethane	ND<1.3	ND<1.3	1.34	NA
Chloroform	ND<2.4	ND<2.4	2.45	NA
Chloromethane	ND<1.0	ND<1.0	1.05	NA
Dibromochloromethane	ND<4.4	ND<4.4	4.35	NA
1,2-Dibromoethane (EDB)	ND	ND	3.9	NA
1,2-Dichlorobenzene	ND<3.0	ND<3.0	3.05	NA
1,3-Dichlorobenzene	ND<3.0	ND<3.0	3.05	NA
1,4-Dichlorobenzene	ND<3.0	ND<3.0	3.05	NA
Dichlorodifluoromethane	2.7	ND	2.5	NA
1,1-Dichloroethane	ND<2.0	ND<2.0	2.05	NA
1,2-Dichloroethane (1,2-DCA)	ND<2.0	ND<2.0	2.05	NA
1,1-Dichloroethene	ND	ND	2.0	NA
cis-1,2-Dichloroethene	ND	ND	2.0	NA
trans-1,2-Dichloroethene	ND	ND	2.0	NA
1,2-Dichloropropane	ND<2.4	ND<2.4	2.35	NA
cis-1,3-Dichloropropene	ND	ND	2.3	NA
trans-1,3-Dichloropropene	ND	ND	2.3	NA
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND<3.6	ND<3.6	3.55	NA
Freon 113	ND	ND	3.9	NA
Methylene chloride	ND<1.8	ND<1.8	1.75	NA
1,1,1,2-Tetrachloroethane	ND	ND	3.5	NA
1,1,2,2-Tetrachloroethane	ND	ND	3.5	NA
Tetrachloroethene	340	250	3.45	NA
1,2,4-Trichlorobenzene	ND<3.8	ND<3.8	3.75	NA
1,1,1-Trichloroethane	ND<2.8	ND<2.8	2.75	NA
1,1,2-Trichloroethane	ND<2.8	ND<2.8	2.75	NA
Trichloroethene	ND<2.8	ND<2.8	2.75	NA
Trichlorofluoromethane	ND<2.8	ND<2.8	2.85	NA
Vinyl Chloride	ND	ND	1.3	NA

Surrogate Recoveries (%)

%SS1:	116	116		
%SS2:	115	113		
%SS3:	114	111		

Comments

*vapor samples are reported in µg/m³.

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 surrogate coelutes with another peak.

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



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Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Endpoint 1534 Plaza Lane #243 Burlingame, CA 94010	Client Project ID: TM Dublin, Crow Canyon Rd	Date Sampled: 08/23/13
	Client Contact: Mehrdad Javaher	Date Received: 08/23/13
	Client P.O.:	Date Extracted: 08/27/13
		Date Analyzed: 08/27/13

Leak Check Compound*

Extraction method: TO15

Analytical methods: TO15

Work Order: 1308864

Lab ID	Client ID	Matrix	Initial Pressure	Final Pressure	Isopropyl Alcohol	DF	% SS	Comments
001A	VE-2S	Soil Gas	12.83	25.56	ND	1	N/A	
002A	VE-1S	Soil Gas	13.08	26.07	ND	1	N/A	
003A	VM-9SS	Soil Gas	13.18	26.28	ND	1	N/A	
005A	VM-5SS	Soil Gas	13.21	26.32	ND	1	N/A	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	psia	psia	NA	NA
	SoilGas	psia	psia	50	µg/m³

* leak check compound is reported in µg/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



Quality Control Report

Client: Endpoint	WorkOrder: 1308864
Date Prepared: 9/3/13	BatchID: 81260
Date Analyzed: 9/3/13	Extraction Method: ASTM D 1946-90
Instrument: GC26	Analytical Method: ASTM D 1946-90
Matrix: Soilgas	Unit: %
Project: TM Dublin, Crow Canyon Rd	Sample ID: MB/LCS-81260

QC SUMMARY REPORT FOR ASTM D 1946-90

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Helium	ND	0.01104	0.0050	0.010	-	110	60-140



Quality Control Report

Client: Endpoint
Date Prepared: 8/27/13
Date Analyzed: 8/27/13
Instrument: GC24
Matrix: Soilgas
Project: TM Dublin, Crow Canyon Rd

WorkOrder: 1308864
BatchID: 81196
Extraction Method: TO15
Analytical Method: TO15
Unit: µg/m³
Sample ID: MB/LCS-81196

QC SUMMARY REPORT FOR TO15

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS	LCS %REC	LCS Limits
Acetone	ND	-	25	-	-	-	-
Acrylonitrile	ND	-	0.50	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	-	0.50	-	-	-	-
Benzene	ND	-	0.50	-	-	-	-
Benzyl chloride	ND	-	0.50	-	-	-	-
Bromodichloromethane	ND	21.4	0.50	25	-	85.6	60-140
Bromoform	ND	27.24	0.50	25	-	109	60-140
Bromomethane	ND	-	0.50	-	-	-	-
1,3-Butadiene	ND	-	0.50	-	-	-	-
2-Butanone (MEK)	ND	-	25	-	-	-	-
t-Butyl alcohol (TBA)	ND	-	10	-	-	-	-
Carbon Disulfide	ND	-	0.50	-	-	-	-
Carbon Tetrachloride	ND	22.47	0.50	25	-	89.9	60-140
Chlorobenzene	ND	20.13	0.50	25	-	80.5	60-140
Chloroethane	ND	22.48	0.50	25	-	89.9	60-140
Chloroform	ND	19.93	0.50	25	-	79.7	60-140
Chloromethane	ND	19.54	0.50	25	-	78.2	60-140
Cyclohexane	ND	-	5.0	-	-	-	-
Dibromochloromethane	ND	23.73	0.50	25	-	94.9	60-140
1,2-Dibromo-3-chloropropane	ND	-	0.012	-	-	-	-
1,2-Dibromoethane (EDB)	ND	20.13	0.50	25	-	80.5	60-140
1,2-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,3-Dichlorobenzene	ND	20.47	0.50	25	-	81.9	60-140
1,4-Dichlorobenzene	ND	19.36	0.50	25	-	77.4	60-140
Dichlorodifluoromethane	ND	22.75	0.50	25	-	91	60-140
1,1-Dichloroethane	ND	22.33	0.50	25	-	89.3	60-140
1,2-Dichloroethane (1,2-DCA)	ND	21.05	0.50	25	-	84.2	60-140
1,1-Dichloroethene	ND	-	0.50	-	-	-	-
cis-1,2-Dichloroethene	ND	21.6	0.50	25	-	86.4	60-140
trans-1,2-Dichloroethene	ND	21.98	0.50	25	-	87.9	60-140
1,2-Dichloropropane	ND	18.65	0.50	25	-	74.6	60-140
cis-1,3-Dichloropropene	ND	21.63	0.50	25	-	86.5	60-140
trans-1,3-Dichloropropene	ND	23.04	0.50	25	-	92.2	60-140
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	21.51	0.50	25	-	86	60-140
Diisopropyl ether (DIPE)	ND	-	0.50	-	-	-	-
1,4-Dioxane	ND	-	0.50	-	-	-	-
Ethanol	ND	-	50	-	-	-	-
Ethyl acetate	ND	-	0.50	-	-	-	-

(Cont.)



Quality Control Report

Client: Endpoint
Date Prepared: 8/27/13
Date Analyzed: 8/27/13
Instrument: GC24
Matrix: Soilgas
Project: TM Dublin, Crow Canyon Rd

WorkOrder: 1308864
BatchID: 81196
Extraction Method: TO15
Analytical Method: TO15
Unit: µg/m³
Sample ID: MB/LCS-81196

QC SUMMARY REPORT FOR TO15

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS	LCS %REC	LCS Limits
Ethyl tert-butyl ether (ETBE)	ND	-	0.50	-	-	-	-
Ethylbenzene	ND	-	0.50	-	-	-	-
4-Ethyltoluene	ND	-	0.50	-	-	-	-
Freon 113	ND	21.57	0.50	25	-	86.3	60-140
Heptane	ND	-	5.0	-	-	-	-
Hexachlorobutadiene	ND	-	0.50	-	-	-	-
Hexane	ND	-	5.0	-	-	-	-
2-Hexanone	ND	-	0.50	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.50	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	-	0.50	-	-	-	-
Methylene chloride	ND	19.41	0.50	25	-	77.6	60-140
Naphthalene	ND	-	1.0	-	-	-	-
Propene	ND	-	50	-	-	-	-
Styrene	ND	-	0.50	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	21.9	0.50	25	-	87.6	60-140
1,1,2,2-Tetrachloroethane	ND	18.56	0.50	25	-	74.2	60-140
Tetrachloroethene	ND	19.32	0.50	25	-	77.3	60-140
Tetrahydrofuran	ND	-	0.50	-	-	-	-
Toluene	ND	-	0.50	-	-	-	-
1,2,4-Trichlorobenzene	ND	21.38	0.50	25	-	85.4	60-140
1,1,1-Trichloroethane	ND	24.32	0.50	25	-	97.3	60-140
1,1,2-Trichloroethane	ND	18.68	0.50	25	-	74.7	60-140
Trichloroethene	ND	18.43	0.50	25	-	73.7	60-140
Trichlorofluoromethane	ND	-	0.50	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.50	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.50	-	-	-	-
Vinyl Acetate	ND	-	0.50	-	-	-	-
Vinyl Chloride	ND	19.8	0.50	25	-	79.2	60-140
Xylenes, Total	ND	70.06	1.5	75	-	93.4	60-140

Surrogate Recovery

1,2-DCA-d4	570.2	582.5		500	114	116	60-140
toluene-d8	562.6	572.2		500	113	114	60-140
4-BFB	541.2	556.7		500	108	111	60-140



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1308864

ClientCode: EPB

WaterTrax
 WriteOn
 EDF
 Excel
 EQUIS
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:
 Mehrdad Javaher
 Endpoint
 1534 Plaza Lane #243
 Burlingame, CA 94010
 415-706-8935 FAX:

Email: mehrdad@endpoint-inc.com
 cc:
 PO:
 ProjectNo: TM Dublin, Crow Canyon Rd

Bill to:
 Accounts Payable
 Endpoint
 1534 Plaza Lane #243
 Burlingame, CA 94010

Requested TAT: 5 days
 Date Received: 08/23/2013
 Date Printed: 09/03/2013

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1308864-001	VE-2S	Soil Gas	8/23/2013 9:04	<input type="checkbox"/>	A	A											
1308864-002	VE-1S	Soil Gas	8/23/2013 9:36	<input type="checkbox"/>		A											
1308864-003	VM-9SS	Soil Gas	8/23/2013 10:58	<input type="checkbox"/>		A											
1308864-004	VM-4S	Soil Gas	8/23/2013 11:38	<input type="checkbox"/>		A											
1308864-005	VM-5SS	Soil Gas	8/23/2013 12:05	<input type="checkbox"/>		A											
1308864-006	VM-6SS	Soil Gas	8/23/2013 12:22	<input type="checkbox"/>		A											

Test Legend:

1	PRNUSEDSUMMA	2	5-8010_Scan-SIM_SOIL(UG	3		4		5	
6		7		8		9		10	
11		12							

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

Prepared by: Maria Venegas

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.

1308864



McCAMPBELL ANALYTICAL INC.
 1534 WILLOW PASS ROAD / PITTSBURG, CA 94565-1701
 Website: www.mccampbell.com / Email: main@mccampbell.com
 Telephone: (877) 252-9262 / Fax: (925) 252-9269

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: *Mehrad* Bill To: *ENDPOINT*
 Company: *ENDPOINT CONSULTING INC*
1534 PLAZA LN #243
Buellington CA E-Mail:
 Tele: *(415) 706-8955* Fax: ()
 Project #: *TMDUBLIN* Project Name: *Crow Canyon*
 Project Location: *7272 San Roman Rd*
 Sampler Signature: *[Signature]*

Lab Use Only
 Pressurized By: _____ Date: _____
 Pressurization Gas: N2 _____ He _____
 Helium Shroud SN#: _____
 Other: _____
 Notes: *TO-15 8010 Listerly*

Field Sample ID (Location)	Collection		Canister SN#	Manifold / Sampler Kit SN#	Analysis Requested	Indoor Air	Soil Gas	Canister Pressure/Vacuum			
	Date	Time						Initial	Final	Receipt	Final (psi)
<i>VE 0 pm MS 9-3-13</i> <i>VM-25</i>	<i>8/27/13</i>	<i>0904</i>	<i>6200</i>	<i>981</i>	<i>TO-15 ISO</i>		<i>X</i>	<i>29</i>	<i>-4</i>		
<i>VM-15</i>		<i>936</i>	<i>6164</i>	<i>986</i>	<i>ISO</i>			<i>-30</i>	<i>-4</i>		
<i>VM-955</i>		<i>1058</i>	<i>6168</i>	<i>983</i>				<i>-27</i>	<i>-4</i>		
<i>VM-45</i>		<i>1138</i>	<i>7508</i>	<i>980</i>	<i>He</i>			<i>-30</i>	<i>-4</i>		
<i>VM-555</i>		<i>1205</i>	<i>6412</i>	<i>984</i>				<i>-30</i>	<i>-4</i>		
<i>VM-655</i>		<i>1222</i>	<i>7531</i>	<i>988</i>	<i>He</i>			<i>-30</i>	<i>-4</i>		

Relinquished By: *[Signature]* Date: *8/28/13* Time: *1532* Received By: *[Signature]*
 Relinquished By: _____ Date: _____ Time: _____ Received By: _____
 Relinquished By: _____ Date: _____ Time: _____ Received By: _____

Temp (°C): _____ Work Order #: _____
 Equipment Condition: _____
 Shipped Via: _____



Sample Receipt Checklist

Client Name: **Endpoint** Date and Time Received: **8/23/2013 1:32:00 PM**
 Project Name: **TM Dublin, Crow Canyon Rd** LogIn Reviewed by: **Maria Venegas**
 WorkOrder N°: **1308864** Matrix: Soil Gas Carrier: Client Drop-In

Chain of Custody (COC) Information

Chain of custody present? Yes No
 Chain of custody signed when relinquished and received? Yes No
 Chain of custody agrees with sample labels? Yes No
 Sample IDs noted by Client on COC? Yes No
 Date and Time of collection noted by Client on COC? Yes No
 Sampler's name noted on COC? Yes No

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes No NA
 Shipping container/cooler in good condition? Yes No
 Samples in proper containers/bottles? Yes No
 Sample containers intact? Yes No
 Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Container/Temp Blank temperature Cooler Temp: NA
 Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
 Sample labels checked for correct preservation? Yes No
 Metal - pH acceptable upon receipt (pH<2)? Yes No NA
 Samples Received on Ice? Yes No

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

 Comments:

Attachment B
Field Data Sheets



McCAMPBELL ANALYTICAL INC.

1534 WILLOW PASS ROAD / PITTSBURG, CA 94565-1701

Website: www.mccampbell.com / Email: main@mccampbell.com

Telephone: (877) 252-9262 / Fax: (925) 252-9269

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

Lab Use Only

Report To: *MELUAD* Bill To: *ENDPOINT*

Company: *ENDPOINT CONSULTING INC*

1534 PLAZA LN #243

Buchingham CA E-Mail:

Tele: *(415) 706-8955* Fax: ()

Project #: *TMDUBIN* Project Name: *CROW CANYON*

Project Location: *7272 San Ramon Rd*

Sampler Signature: *[Signature]*

Pressurized By	Date	Pressurization Gas	
		N2	He

Helium Shroud SN#:

Other:

Notes: *TO-15 solo list only*

Field Sample ID (Location)	Collection		Canister SN#	Manifold / Sampler Kit SN#	Analysis Requested	Indoor Air	Soil Gas	Canister Pressure/Vacuum			
	Date	Time						Initial	Final	Receipt	Final (psi)
<i>Vm-25</i>	<i>8/27/13</i>	<i>0901</i>	<i>6200</i>	<i>981</i>	<i>TO-15 T50</i>		<i>X</i>	<i>29</i>	<i>-4</i>		
<i>Vm-15</i>		<i>936</i>	<i>6164</i>	<i>986</i>	<i>T50</i>			<i>-30</i>	<i>-4</i>		
<i>Vm-955</i>		<i>1058</i>	<i>6168</i>	<i>983</i>				<i>-29</i>	<i>-4</i>		
<i>Vm-45</i>		<i>1138</i>	<i>7508</i>	<i>980</i>				<i>-30</i>	<i>-4</i>		
<i>Vm-555</i>		<i>1205</i>	<i>6412</i>	<i>984</i>				<i>-30</i>	<i>-4</i>		
<i>Vm-655</i>		<i>1222</i>	<i>7531</i>	<i>985</i>				<i>-30</i>	<i>-4</i>		

Relinquished By: *[Signature]* Date: *8/23/13* Time: *1532* Received By: *[Signature]*

Relinquished By: Date: Time: Received By:

Relinquished By: Date: Time: Received By:

Temp (°C): _____ Work Order #: _____

Equipment Condition: _____

Shipped Via: _____