

Chuck Carmel Environmental Business Manager

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8:43 am, Aug 11, 2010

Alameda County Environmental Health

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30 July 2010

Re: Vapor Intrusion Assessment Report Atlantic Richfield Company Station #2035 1001 San Pablo Avenue, Albany, California ACEH Case #RO0000100

"I declare, that to the best of my knowledge at the present time, that the information and/or recommendations contained in the attached document are true and correct.

Submitted by,

Im

Chuck Carmel Environmental Business Manager

Attachment



### **Prepared for:**

Mr. Chuck Carmel Environmental Business Manager Atlantic Richfield Company P.O. Box 1257 San Ramon, California 94583

## **Prepared by:**

VAPOR INTRUSION ASSESSMENT REPORT

Atlantic Richfield Company Station #2035 1001 San Pablo Avenue, Albany, California ACEH Fuel Leak Case #RO0000100 BROADBENT & ASSOCIATES, INC. ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

1324 Mangrove Ave., Suite 212 Chico, California 95926 (530) 566-1400 www.broadbentinc.com

30 July 2010

Project #06-88-610

30 July 2010



Project No. 06-88-610

Atlantic Richfield Company P.O. Box 1257 San Ramon, CA 94583 Submitted via ENFOS

Attn.: Mr. Chuck Carmel

Re: Vapor Intrusion Assessment Report, Atlantic Richfield Company Station #2035, 1001 San Pablo Avenue, Albany, Alameda County, California; ACEH Case #RO0000100

Dear Mr. Carmel:

Broadbent & Associates, Inc. (BAI) respectfully submits this *Vapor Intrusion Assessment Report* for Atlantic Richfield Company (a BP affiliated company) Station #2035 located at 1001 San Pablo Avenue, Albany, Alameda County, California (Site). This report contains the results of an on-site vapor intrusion assessment. These activities were conducted in accordance with the *Revised Vapor Intrusion Assessment Work Plan* (BAI, 9/24/2009), which was prepared in response to the ACEH approval letter containing technical comments, dated 3 September 2009.

Should you have questions or require additional information, please do not hesitate to contact us at (530) 566-1400.

Sincerely,

BROADBENT & ASSOCIATES, INC.

Thomas A. Venus Senior Engineer, P.E.

Enclosures

- No. 54698 CO Expires /2-3/-//
- cc: Mr. Paresh Khatri, Alameda County Environmental Health (Submitted via ACEH ftp site) Electronic copy uploaded to GeoTracker

### VAPOR INTRUSION ASSESSMENT REPORT Atlantic Richfield Company Station #2035 1001 San Pablo Avenue, Albany, California

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# APPENDICES

Appendix A	Soil Vapor Monitoring Well Installation Data Package (Includes Field Notes,
	Construction Logs, Well Permits and Well Completion Reports)
Appendix B	Soil Vapor Monitoring Well Sampling Data Package No.1 (Includes Field Notes and Laboratory Analytical Report with Chain-of-Custody Documentation)
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### VAPOR INTRUSION ASSESSMENT REPORT Atlantic Richfield Company Station #2035 1001 San Pablo Avenue, Albany, California

## **1.0 INTRODUCTION**

On behalf of the Atlantic Richfield Company, RM - a BP affiliated company, Broadbent & Associates, Inc. (BAI) has prepared this *Vapor Intrusion Assessment Report* concerning the Atlantic Richfield Company Station #2035, located at 1001 San Pablo Avenue, Albany, Alameda County, California (Site). The vapor intrusion assessment activities were conducted following the *Revised Vapor Intrusion Assessment Work Plan* (BAI, 9/25/2009), which was prepared in response to the ACEH approval letter containing technical comments, dated 3 September 2009. This document includes discussions on the site background, vapor intrusion assessment activities including soil gas monitoring point installation, two rounds of sampling, analytical results, conclusions and recommendations. Drawings and appendices referenced within this document are provided following the conclusion of the document's text.

## 2.0 SITE BACKGROUND

The Site is currently an active ARCO-brand gasoline retail outlet located on the southeast corner of San Pablo and Marin Avenues in Albany, California. A Site Location Map is provided as Drawing 1 following the text conclusion. The land use in the immediate vicinity of the Site is mixed commercial and residential. Development at the Site consists of a service station building with four gasoline underground storage tanks (USTs) with associated piping, and four pump dispensers on two dispenser islands. The Site is primarily covered with asphalt or concrete surfacing. The ACEH-assigned Fuel Leak Case No. is RO0000100 / GeoTracker Global ID No. T0600100081. A Shell-brand service station is located at 999 San Pablo Avenue across the street approximately 65 feet to the north-northwest of the Site. The Shell Station #13-5037 is an active leaking UST case, ACEH Fuel Leak Case No. RO0000121 / GeoTracker Global ID No. T0600101277.

Numerous subsurface investigations and remedial activities have been conducted on-site since 1989. A comprehensive Site history can be found within the *Work Plan for Soil & Water Investigation* (BAI, 1/5/2009). The Site history can be supplemented with the results from advancing three soil borings and the construction of three new ground-water monitoring wells at the Site in March and April 2009, as reported in the subsequent *Soil & Ground-Water Investigation Report* (BAI, 5/20/2009).

### 3.0 VAPOR INTRUSION ASSESSMENT

Vapor intrusion assessment activities were originally proposed in the *Vapor Intrusion Assessment Work Plan* (BAI, 8/10/2009). That work plan had been prepared in response to the 11 June 2009 letter request from Mr. Paresh Khatri of ACEH. The *Revised Vapor Intrusion Assessment Work Plan* (BAI, 9/25/2009) was prepared in response to the 3 September 2009 letter from ACEH, which approved the original work plan but with significant comments changing the scope of work. Specifically, the technical comments in the ACEH letter of 3 September 2009 requested additional soil vapor sampling locations in the more northern and western portions of the property where elevated hydrocarbon contaminant concentrations had been observed, but away from the current occupied structures on the Site. Submittal of a revised figure depicting the additional soil vapor sampling locations was requested within the ACEH letter of 3 September 2009. However, due to the significant change in the scope of work a revised work plan was prepared for ACEH as well as for the benefit of Stratus Environmental, Inc., who was anticipated to implement the field work under direct contract to Atlantic Richfield Company.

# 3.1 Preliminary Field Activities

During the last quarter of 2009, BAI replaced Stratus as the consultant responsible for executing field work at Atlantic Richfield Company and Former BP stations in Alameda County. Prior to initiating field activities, BAI obtained the necessary Well Drilling Permit No.W2009-1115 from the Alameda County Public Works Agency (See Appendix A). BAI also prepared a site health and safety plan specific to the work scope and cleared the Site for subsurface utilities. The utility clearance included notifying Underground Service Alert of the work a minimum of 48 hours prior to initiating the field investigation, and additionally securing the services of Cruz Brothers Locators, a private utility locating company to confirm the absence of underground utilities at the boring locations. Due to the presence of a buried metal object identified during the utility clearance, the proposed location of boring SG-4 had to be moved five feet to the east-northeast.

# 3.2 Soil Borings

Soil borings for soil vapor sampling locations SG-1 through SG-5 (See Drawing 2) were advanced on 9-10 March 2010 by Cascade Drilling using an air-knife/vacuum extraction rig. Each boring was advanced to a total depth of approximately 3.5 ft bgs. Due to the shallow nature of the borings, soils were not classified during boring installation activities. Field notes and well construction logs are provided in Appendix A. A GEO\_MAP depicting the boring locations was uploaded to the GeoTracker AB2886 database.

# 3.3 Construction of Soil Vapor Probes

The soil vapor sampling wells were constructed by placing a 6-inch long soil vapor probe at the bottom of each boring attached to 3/8-inch diameter NylaFlow tubing extending to the surface. The soil vapor probes were constructed of double-woven stainless steel wire screen with a pore diameter of 0.057 inch, equipped with stainless steel end fittings. The annulus of the soil vapor sampling wells were constructed with No.2/12 sand filter packs from 3.5 ft bgs to 2.5 ft bgs, overlain with a bentonite annular seal from 2.5 ft bgs to 1.0 ft bgs. The remainder of the annulus was filled with neat cement grout to the surface. The wells were completed with flush, traffic-rated well boxes, with a concrete surface seal to match the existing grade. The cement grout was allowed to cure for 37 days prior to their initial sampling. Construction details are provided within Appendix A.

Residual solids and liquids generated during well construction activities were stored temporarily onsite in a Department of Transportation-approved 55-gallon drums pending analytical results and profiling. Following characterization and profiling, Belshire Environmental Services

transported the investigation-derived residuals to an Atlantic Richfield Company-approved facility for treatment or disposal. Waste manifests are provided in Appendix A.

## 3.4 Initial Soil Gas Sampling Procedures

Soil vapor sampling activities were completed by BAI on 16 April 2010. No precipitation had been recorded in the area within the previous 24-hour period. Six-liter Summa<sup>®</sup> canisters were used to collect the samples for analysis. The Summa<sup>®</sup> canisters were shipped by the laboratory under high vacuum, leak checked, and batch certified to be free of contaminants. Each initial canister vacuum was measured before use and verified to be -30 inches of Mercury (in.Hg). Swagelok fittings and tee(s) were used to connect the purge canister and sample canister to the tubing. Once the canisters were connected to the tubing, the sampling train was checked for leaks by applying a vacuum from the purge canister for approximately five minutes with the Swagelok valve to the well closed. During these initial static leak tests, the vacuums in the purge canisters were observed not to change over their five minute observation periods, indicating that the sampling trains were adequately sealed and not leaking.

Once the initial static leak test was completed, the dedicated purge canister was then used to purge each sampling train (i.e. soil vapor monitoring well, fittings, and aboveground tubing). The pre-sample purge consisted of watching a change in the purge canister of 5 in.Hg over a period of 4-8 minutes. Since the purging (and sampling) flow rate was pre-set by the laboratory-supplied flow regulators/critical orifice assemblies at approximately 200 standard cubic centimeters per minute, this equated to purging each sampling train of approximately 800 to 1,600 cubic centimeters (cc), or approximately four to nine times each sampling train volume of approximately 172 cc. Immediately following closing of the valve to the purging canister, the valve to the connected sample canister was opened. Samples were collected over 26 to 40 minutes, essentially until the vacuum in the canister(s) reached -5 in.Hg (or -4 in.Hg during the collection of sample SG-5 on 16 April 2010).

A chemical tracer leak test was performed as a further check for ambient air leaking into the sampling trains. During sample collection, the leak test compound 1,1-Difluoroethane (1,1-DFA, CAS#75-37-6) was applied around the probe at the ground surface and at connections in the sampling system. The leak test compound was administered by spraying a pressurized can of Dust-Off<sup>®</sup> around the test locations for extended bursts several times during the collection of each sample. A complete 12-ounce can (340g, 374 ml) was used over the course of leak testing during the collection of samples from the five soil vapor monitoring wells. The leak test compound 1,1-DFA was included in the laboratory analysis. Finally, an ambient air sample was also collected outside the Station Building (adjacent to the main entrance door) as proposed within the work plan, however no 1,1-DFA was administered during its collection. As a further quality assurance test, a field duplicate was collected 16 April 2010 at soil vapor sampling well SG-4. Immediately following collection of sample SG-4, its valve was closed and another Summa canister beyond another tee in the tubing was opened. This duplicate sample was given the fictitious name of SG-6. Therefore, sample SG-6 is not technically a split sample of SG-4, but a duplicate sample collected immediately subsequent to the primary sample. It was thought that two canisters drawing on one well simultaneously, for a combined flow rate of

approximately 400 cubic centimeters per second, would encourage short-circuiting during an attempt to collect split air samples.

As proposed in the sampling plan, one Summa canister collected an ambient air sample (identified as 'Ambient') from ground level just outside the door into the Station Building. No leak check compound was required or utilized. A summary table of pertinent data collected in the field during Summa canister soil vapor sampling on 16 April 2010 is provided in Table 1.

# 3.5 Laboratory Analysis of Initial Soil Gas Samples

Collected samples were submitted promptly under chain-of-custody protocol to Calscience Environmental Laboratories, Inc. in Garden Grove, California (CA-ELAP #1230, NELAP #03220CA). Soil gas samples were analyzed for Gasoline Range Organics (GRO, hydrocarbon chain lengths C6-C12), Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX), Methyl Tertiary Butyl Ether (MTBE), Ethanol, Tertiary Butyl Alcohol (TBA), Di-Isopropyl Ether (DIPE), Ethyl Tertiary Butyl Ether (ETBE), Tertiary Amyl Methyl Ether (TAME), and 1,1-DFA (the leak check compound) by EPA Method TO-15. Soil gas samples were also analyzed for Oxygen (O<sub>2</sub>) and Argon, Carbon Dioxide (CO<sub>2</sub>), and Methane (CH<sub>4</sub>) by Modified Method ASTM D-1946. Laboratory analyses for soil gas samples were performed in accordance with the EPA standard holding times for Summa<sup>®</sup> canisters. No significant irregularities were reported during laboratory analysis of the soil gas samples. The laboratory analytical report for the soil gas samples, including chain-of-custody documentation, is provided in Appendix B. Soil gas sample laboratory analytical results along with Environmental Screening Levels (ESLs) for shallow soil gas (residential land use and commercial/industrial land use) established by the California Regional Water Quality Control Board, San Francisco Bay Region (SFRWQCB) are summarized in Table 2.

As summarized in Table 2, Benzene was detected at 0.0032 milligrams per cubic meter (mg/m<sup>3</sup>) in Sample SG-3. Toluene was detected in five samples up to 0.011 mg/m<sup>3</sup> in sample SG-3. Ethanol was detected in sample SG-3 at 0.020 mg/m3 and in Ambient sample at 0.039 mg/m<sup>3</sup>. The remaining petroleum hydrocarbons GRO, Ethylbenzene, Total Xylenes, MTBE, ETBE, DIPE, TAME, and TBA were not detected above the sample-specific laboratory reporting limits given. The leak check compound 1,1-DFA was found in samples SG-1, SG-2, SG-3, SG-4, and SG-5 in significant concentrations up to 170 mg/m<sup>3</sup>. However, 1,1-DFA was not detected in sample SG-6 (the sequential field duplicate to sample SG-4).

# 3.6 Follow-Up Soil Gas Sampling Procedures

Following the detection of the leak-check compound in each of the primary soil-gas samples collected on 14 April 2010, it was apparent that the contaminant concentration data were of suspect value. On 29 April 2010, BAI contacted ACEH to report the preliminary findings. Mr. Paresh Khatri of ACEH was receptive to BAI conducting a second round of field sampling, as long as both the initial and second round of sampling results were reported.

Follow-up soil gas sampling activities were completed by BAI on 14 May 2010. No precipitation had been recorded in the area within the previous 24-hour period. Six-liter Summa<sup>®</sup> canisters were used to collect the samples for analysis. The Summa<sup>®</sup> canisters were shipped by the laboratory under high vacuum, leak checked, and batch certified to be free of contaminants. Each initial canister vacuum was measured before use and verified to be -30 inches of Mercury (in.Hg). Swagelok fittings and tee(s) were used to connect the purge canister and sample canister to the tubing. Once the canisters were connected to the tubing, the sampling train was checked for leaks by applying a vacuum from the purge canister for approximately five minutes with the Swagelok valve to the well closed. During these static leak tests, the vacuums in the purge canisters were observed not to change over their five minute observation periods, indicating that the sampling trains were adequately sealed and not leaking.

Once again, after each static leak test was completed, the dedicated purge canister was then used to purge each sampling train (i.e. soil vapor monitoring well, fittings, and aboveground tubing). The pre-sample purge consisted of watching a change in the purge canister of 5 in.Hg over a period of 5-7 minutes. Immediately following closing of the valve to the purging canister, the valve to the connected sample canister was opened. Samples were collected over 29 to 45 minutes, essentially until the vacuum in the canister(s) reached -5 in.Hg.

This time during sample collection, the leak test compound Isopropyl Alcohol (Isopropanol or IPA, aka Rubbing Alcohol, CAS# 67-63-0) was applied to paper towels laid over and around the probe at the ground surface and at connections in the sampling system. The leak test compound IPA was subsequently included in the laboratory analysis. As a further quality assurance test, another field (sequential) duplicate was collected 14 May 2010 at soil vapor sampling well SG-4. Immediately following collection of sample SG-4, its valve was closed and another Summa canister beyond another tee in the tubing was opened. This duplicate sample was again given the fictitious name of SG-6.

A summary table of pertinent data collected in the field during follow-up Summa canister soil vapor sampling on 14 May 2010 is provided in Table 3.

# 3.7 Laboratory Analysis of Follow-Up Soil Gas Samples

Collected samples were submitted promptly under chain-of-custody protocol to Calscience Environmental Laboratories, Inc. in Garden Grove, California (CA-ELAP #1230, NELAP #03220CA). Soil gas samples were analyzed for GRO by TO-3, and BTEX, MTBE, DIPE, ETBE, TAME, TBA, Ethanol, and IPA (the leak check compound) by EPA Method TO-15. Soil gas samples were also analyzed for Oxygen (O<sub>2</sub>) and Argon, Carbon Dioxide (CO<sub>2</sub>), and Methane (CH<sub>4</sub>) by Modified Method ASTM D-1946. Laboratory analyses for soil gas samples were performed in accordance with the EPA standard holding times for Summa<sup>®</sup> canisters. No significant irregularities were reported during laboratory analysis of the soil gas samples. The laboratory analytical report for the follow-up soil gas samples, including chain-of-custody documentation, is provided in Appendix C. Soil gas sample laboratory analytical results along with Environmental Screening Levels (ESLs) for shallow soil gas (residential land use and commercial/industrial land use) established by the California Regional Water Quality Control Board, San Francisco Bay Region (SFRWQCB) are summarized in Table 4.

As summarized in Table 4, GRO was detected in the duplicate of sample SG-4 (SG-6) at 60 mg/m<sup>3</sup> (right above the laboratory reporting limit of 59 mg/m<sup>3</sup>), but not in primary sample SG-4. Toluene was detected in three samples up to 0.016 mg/m<sup>3</sup> in sample SG-4. The remaining petroleum hydrocarbons Benzene, Ethylbenzene, Total Xylenes, MTBE, ETBE, DIPE, TAME, TBA, and Ethanol were not detected above the sample-specific laboratory reporting limits given. The leak check compound IPA was found in samples SG-2 (0.14 mg/m<sup>3</sup>), SG-4 (91 mg/m<sup>3</sup>), SG-4's duplicate SG-6 (130 mg/m<sup>3</sup>), and SG-5 (18 mg/m<sup>3</sup>).

# 3.8 Discussion of Vapor Intrusion Assessment Results

Where either the petroleum hydrocarbon compounds Benzene or Toluene were detected in either round, the results were significantly below the Residential and Commercial ESLs for shallow soil gas. However, GRO was reported in the duplicate of SG-4 during the follow-up round at 60 mg/m<sup>3</sup>, above both the Residential and Commercial ESLs of 10 mg/m<sup>3</sup> and 29 mg/m<sup>3</sup>, respectively. As noted previously, 60 mg/m<sup>3</sup> is right above the laboratory reporting limit provided. Oxygen (plus Argon) concentrations were noticeably below the normal atmospheric level of 21.9 percent in samples SG-1, SG-2, and SG-3 during both rounds of sampling (ranging from 8.4 to 17.6 percent). Similarly, Carbon Dioxide concentrations in samples SG-1, SG-2, and SG-3 were above the low laboratory reporting limits (measured at up to 5.23 percent). Both of these are believed indirect evidence of aerobic microbial biodegradation of some fuel source (possibly petroleum hydrocarbons). For reasons unexplained, the second round of sampling from SG-5 found a very low Oxygen (plus Argon) concentration of 2.78 percent, and elevated Carbon Dioxide concentration.

The discovery of the leak check compound in many of the samples collected both during the initial sampling on 16 April 2010 and follow-up sampling on 14 May 2010 is significant and troubling. Where the leak-check compound was observed and short-circuiting is considered a possibility, the analytical results should be considered suspect (i.e. too low) due to possible dilution with air from the surface. The fact that pressure losses were not observed during the static leak checks indicates that the integrity of at least the sampling train above ground was not compromised. The detection of the leak check compound(s) results might initially seem to indicate that short-circuiting was occurring between the surface and the inlets to the shallow soil-vapor probes set between 3.0-3.5 ft bgs. However, industry experts in the field of soil gas sampling that reviewed this draft report have not seen these types of issues before with shallow soil gas samples. Their review stated that the probes appeared to have been constructed properly, so they didn't think breakthrough of air/leak check compound from the surface should be occurring. The reduced oxygen levels support this point. Their hypothesis was that the sampling protocols needed to be re-evaluated and re-sampling occur using a different approach (perhaps using smaller canisters, purging with syringes, switch to helium for leak detection, etc.).

## 4.0 CONCLUSIONS AND RECOMMENDATIONS

### 4.1 Conclusions

BAI prepared this *Vapor Intrusion Assessment Report* for Station #2035 following implementation of the scope of work proposed in the *Revised Vapor Intrusion Assessment Work Plan* (BAI, 9/25/2009). Based on the resultant observations, BAI makes the following conclusions:

• The low concentrations of Benzene and Toluene detected do not appear to indicate a vapor intrusion issue at Station #2035. However, the detection of the leak-check compounds in both rounds of sampling precludes the ability to draw this conclusion with certainty. The problem lies with documenting that the samples are valid. It is still believed that the probes were constructed correctly but that somehow the leak-check compound was getting through the sampling train during sample collection.

### 4.2 Recommendations

Based on the information obtained and presented in this report, BAI makes the following recommendations:

• At this time, BAI recommends that re-sampling be done using a different sampling protocol(s). A revised sampling protocol will be communicated to ACEH prior to sampling and reporting.

### 5.0 CLOSURE

The findings presented in this document are based upon: observation of BAI field personnel, the points investigated, and results of laboratory tests performed by Calscience Environmental Laboratories, Inc. (Garden Grove, California). Our services were performed in accordance with the generally accepted standard of practice at the time this document was written. No other warranty, expressed on implied was made. This report has been prepared for the exclusive use of Atlantic Richfield Company. It is possible that variations in soil or ground-water conditions could exist beyond points explored in this investigation. Also changes in site conditions could occur in the future due to variations in rainfall, temperature, regional water usage, or other factors.

### 6.0 **REFERENCES**

 ACEH, 3 September 2009. Fuel Leak Case No. RO0000100 and Geotracker Global ID T0600100081, ARCO #2035, 1001 San Pablo Avenue, Albany, CA 94706. Letter from Mr. Paresh Khatri (ACEH) to Mr. Paul Supple (Atlantic Richfield Company) approving work plan with technical comments and request for revised site figure.

- ACEH, 11 June 2009. Fuel Leak Case No. RO0000100 and Geotracker Global ID T0600100081, ARCO #2035, 1001 San Pablo Avenue, Albany, CA 94706. Letter from Mr. Paresh Khatri (ACEH) to Mr. Paul Supple (Atlantic Richfield Company) request for work plan.
- American Petroleum Institute (API), November 2005. Collecting and Interpreting Soil Gas Samples from the Vadose Zone. API Publication No. 4741.
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- BAI, 10 August 2009. Vapor Intrussion Assessment Work Plan, Atlantic Richfield Company Service Station #2035, 1001 San Pablo Avenue, Albany, California, ACEH Case #R00000100. Submitted to Mr. Chuck Carmel for Atlantic Richfield Company and Mr. Paresh Khatri for ACEH.
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- DTSC and Los Angeles Regional Water Quality Control Board (LARWQCB), 28 January 2003. Advisory – Active Soil Gas Investigations.
- Interstate Technology & Regulatory Council, January 2007. Vapor Intrusion Pathway: A Practical Guideline.
- Ririe, G. Todd, Robert E. Sweeney, and Blayne Hartman, December 2009. *BP Remediation Management Technical Guidance – Petroleum Hydrocarbon Vapor Intrusion Sampling*.
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- US Environmental Protection Agency, November 2002. OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance). EPA530-D-02-004.





# Table 1 - Summa Canister Soil Vapor Sampling Field Data, 16 April 2010 Station #2035, 1001 San Pablo Avenue, Albany, California

			Static Leal	k Test			Purging (C	COA# 268, C	an.# D151	)		Sampling				
Sample ID	COA# <sup>(1)</sup>	Can# <sup>(2)</sup>	Start Time	End Time	Start Vac.	End Vac.	Start Time	End Time	Elapsed	Start Vac.	End Vac.	Start Time	End Time	Elapsed	Start Vac.	End Vac.
SG-1	A140	D484	15:05	15:10	-30	-30	15:10	15:17	0:07	-10	-5	15:17	15:50	0:33	-30	-5
SG-2	A325	D777	14:10	14:15	-30	-30	14:15	14:23	0:08	-15	-10	14:23	14:54	0:31	-30	-5
SG-3	A324	D625	13:15	13:20	-30	-30	13:20	13:24	0:04	-20	-15	13:26	13:52	0:26	-30	-5
SG-4	A47	D508	11:17	11:22	-30	-30	11:22	11:27	0:05	-30	-25	11:28	12:08	0:40	-30	-5
SG-4 dup <sup>(4)</sup>	unknown <sup>(5)</sup>	D535	11:17	11:22	-30	-30	11:22	11:27	0:05	-30	-25	11:28	12:08	0:40	-30	-5
SG-5	A166	D488	12:21	12:26	-30	-30	12:26	12:32	0:06	-25	-20	12:32	13:05	0:33	-30	-4
Ambient	A187	D600	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	12:30	12:57	0:27	-30	-5

Notes:

(1) COA# = Critical Orifice Assembly Number (Laboratory-supplied flow regulator; 0.0060 inch orifice, approximately 200 standard cubic centimeters per second).

(2) Can# = Laboratory-supplied 6-liter Summa canister tracking number.

(3) Vacuums measured in inches Mercury.

(4) SG-4 dup = Duplicate of sample SG-4 was identified as SG-6 on chain-of-custody document to laboratory.

(5) unknown = Forgot to record COA# data in field.

(6) n/a = Not applicable/not available; data not collected in the field.

# Table 2 - Soil Vapor Sampling Laboratory Analytical Results, 16 April 2010 Station #2035, 1001 San Pablo Avenue, Albany, California

	GRO			Ethyl-	Total								Oxygen +	Carbon	
	(C6-C12)	Benzene	Toluene	benzene	Xylenes	MTBE	ETBE	DIPE	TAME	TBA	Ethanol	1,1-DFA	Argon	Dioxide	Methane
Sample ID	(ppmV)	(mg/m³)	(mg/m <sup>3</sup> )	(mg/m³)	(mg/m <sup>3</sup> )	(mg/m <sup>3</sup> )	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m <sup>3</sup> )	(mg/m³)	(%)	(%)	(%)
SG-1	<15	<0.0024	0.0058	<0.0033	<0.013	<0.011	<0.013	<0.013	<0.013	<0.0092	<0.014	13	14.1	2.55	<0.755
SG-2	<16	<0.0025	0.0043	<0.0034	<0.014	<0.011	<0.013	<0.013	<0.013	<0.0096	<0.015	12	17.6	3.87	<0.790
SG-3	<17	0.0032	0.011	<0.0037	<0.015	<0.012	<0.014	<0.014	<0.014	<0.010	0.020	11	14.5	2.69	<0.845
SG-4	<14	<0.0089	<0.011	<0.012	<0.049	<0.040	<0.047	<0.047	<0.047	<0.034	<0.053	170	21.8	<0.700	<0.700
SG-4 dup.	<16	<0.0026	0.0041	<0.0036	<0.014	<0.012	<0.014	<0.014	<0.014	<0.010	<0.016	<0.0089	21.7	<0.825	<0.825
SG-5	<15	<0.0049	<0.0058	<0.0067	<0.027	<0.022	<0.026	<0.026	<0.026	<0.019	<0.029	72	21.5	<0.700	<0.700
Ambient	<19	<0.0030	0.015	<0.0040	<0.016	<0.013	<0.016	<0.016	<0.016	<0.011	0.039	<0.010	21.6	<0.930	<0.930
ESL-Res.	10 mg/m <sup>3</sup>	0.084	63.0	0.980	21.0	9.40	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
ESL-Comm.	29 mg/m <sup>3</sup>	0.280	180	3.30	58.0	31.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

#### Notes:

(1) GRO analysis by EPA TO-3; Benzene through 1,1-DFA analysis by EPA TO-15; Q+AR/CO<sub>2</sub>/CH<sub>4</sub> analysis by ASTM D-1946.

(2) < X = Not detected above the given laboratory reporting limit (X) in parts per million volume/volume (ppmV) or milligrams per cubic meter (mg/n<sup>3</sup>)

(3) ESL-Res = Environmental Screening Level for shallow soil gas (residential land use); from California Regional Water Quality Control Board, San Francisco Bay Region (SFBRWQCB), May 2008.

(4) ESL-Comm = Environmental Screening Level for shallow soil gas (commercial or industrial land use); from SFBRWQCB, May 2008.

(5) n/a = ESL not available or not applicable.

#### Table 3 - Summa Canister Soil Vapor Sampling Field Data, 14 May 2010 Station #2035, 1001 San Pablo Avenue, Albany, California

			Static Lea	k Test			Purging (C	COA# 217, C	an.# D718	5)		Sampling				
Sample ID	COA# <sup>(1)</sup>	Can# <sup>(2)</sup>	Start Time	End Time	Start Vac.	End Vac.	Start Time	End Time	Elapsed	Start Vac.	End Vac.	Start Time	End Time	Elapsed	Start Vac.	End Vac.
SG-1	A461	D172	14:48	14:53	-30	-30	14:53	15:00	0:07	-8	-3	15:00	15:35	0:35	-30	-5
SG-2	A317	D339	13:44	13:50	-30	-30	13:50	13:56	0:06	-11	-8	13:56	14:25	0:29	-30	-5
SG-3	A127	D584	11:23	11:31	-30	-30	11:31	11:36	0:05	-21	-15	11:36	12:06	0:30	-30	-5
SG-4	A247	D702	9:27	9:33	-30	-30	9:33	9:39	0:06	-30	-26	9:39	10:11	0:32	-30	-5
SG-4 dup <sup>(4)</sup>	A132	D737	10:16	10:21	-30	-30	10:21	10:27	0:06	-26	-21	10:27	10:57	0:30	-30	-5
SG-5	A307	D701	12:29	12:35	-30	-30	12:35	12:40	0:05	-15	-11	12:40	13:25	0:45	-30	-5

Notes:

(1) COA# = Critical Orifice Assembly Number (Laboratory-supplied flow regulator; 0.0060 inch orifice, approximately 200 standard cubic centimeters per second).

(2) Can# = Laboratory-supplied 6-liter Summa canister tracking number.

(3) Vacuums measured in inches Mercury.

(4) SG-4 dup = Duplicate of sample SG-4 was identified as SG-6 on chain-of-custody document to laboratory.

(5) unknown = Forgot to record COA# data in field.

(6) n/a = Not applicable/not available; data not collected in the field.

# Table 4 - Soil Vapor Sampling Laboratory Analytical Results, 14 May 2010 Station #2035, 1001 San Pablo Avenue, Albany, California

	GRO			Ethyl-	Total								Oxygen +	Carbon	
	(C6-C12)	Benzene	Toluene	benzene	Xylenes	MTBE	ETBE	DIPE	TAME	TBA	Ethanol	IPA	Argon	Dioxide	Methane
Sample ID	(mg/m³)	(mg/m <sup>3</sup> )	(mg/m³)	(mg/m³)	(mg/m <sup>3</sup> )	(mg/m³)	(mg/m³)	(mg/m <sup>3</sup> )	(mg/m³)	(mg/m³)	(mg/m³)	(mg/m <sup>3</sup> )	(%)	(%)	(%)
SG-1	<65	<0.0027	0.0044	<0.0037	<0.015	<0.012	<0.014	<0.014	<0.014	<0.010	<0.016	<0.021	8.40	5.23	<0.855
SG-2	<64	<0.0027	<0.0032	<0.0036	<0.015	<0.012	<0.014	<0.014	<0.014	<0.010	<0.016	0.14	17.2	3.79	<0.840
SG-3	<62	<0.0026	0.0064	<0.0035	<0.014	<0.012	<0.014	<0.014	<0.014	<0.0098	<0.015	<0.020	11.5	5.05	<0.810
SG-4	<59	<0.0098	0.016	<0.013	<0.053	<0.044	<0.051	<0.051	<0.051	<0.037	<0.058	91	21.5	<0.765	<0.765
SG-4 dup.	60	<0.020	<0.023	<0.027	<0.11	<0.089	<0.10	<0.10	<0.10	<0.075	<0.12	130	21.5	<0.775	<0.775
SG-5	<64	<0.0027	<0.0032	<0.0036	<0.015	<0.012	<0.014	<0.014	<0.014	<0.010	<0.016	18	2.78	5.45	<0.840
ESL-Res.	10 mg/m <sup>3</sup>	0.084	63.0	0.980	21.0	9.40	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
ESL-Comm.	29 mg/m <sup>3</sup>	0.280	180	3.30	58.0	31.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Notes:

(1) GRO analysis by EPA TO-3; Benzene through Isopropanol (IPA) analysis by EPA TO-15; Q+Ar/CO<sub>2</sub>/CH<sub>4</sub> analysis by ASTM D-1946.

(2) <X = Not detected above the given laboratory reporting limit (X) in milligrams per cubic meter (mg/n<sup>3</sup>)

(3) ESL-Res = Environmental Screening Level for shallow soil gas (residential land use); from California Regional Water Quality Control Board, San Francisco Bay Region (SFBRWQCB), May 2008.

(4) ESL-Comm = Environmental Screening Level for shallow soil gas (commercial or industrial land use); from SFBRWQCB, May 2008.

(5) n/a = ESL not available or not applicable.

# APPENDIX A

SOIL VAPOR MONITORING WELL INSTALLATION DATA PACKAGE (Includes Field Notes, Construction Logs, Well Permits and Well Completion Reports)

BROADBENT & ASSOCIATES, INC. ENGINEERING, WATER RESOURCES & ENVIRONMENTAL		DAILY REPORT Page of
Project: DP 2035	Project No.: 06-88-610	)
Field Representative(s): <u>T. b-yldron E. Farror</u>	Day: Manday Date:	3/1/10
Time Onsite: From: <u>1245</u> To: <u>1440</u> ; From:	To:; From:;	То:
Signed HASP Safety Glasses UST Emergency System Shut-off Switches Lo Proper Level of Barricading Other PPE	Hard Hat Steel Toe Boots cated Proper Gloves (describe)	Safety Vest
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Equipment In Use:		
Visitors:		
TIME: WORK I	DESCRIPTION:	
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1510 Arin 2128		
1530 Pepart 2128		
1615		
Signature:		



# CRUZ BROTHERS LOCATORS

P.O.Box 66768

Scotts Valley, CA 95067

	ADT		
		J' N /	

(831) 461-1468 Dispatch (831) 461-1470 Fax

Vacuum Extractio

JOB#: 21042

This agreement is made between Cruz Brothers Locators hereinafter referred to as "C.B.L." and the undersigned client.

Requestor: Tom Vewus	_Company: Broadbeut ASSOC.
Billing Address:	Phone: 530 566 1400

C.B.L. agrees to perform the following scope of work for the above mentioned client. In consideration of said scope of work the client agrees to pay C.B.L. the sum of <u>145</u> per hr. Note that there is a minimum charge of two hours and is incurred upon office departure to office return. Additional material expenses will be added to that amount. The client also agrees to compensate C.B.L. in the event it is proven that the problem noted in the scope of work does not exist such as a proven pressure test indicating no water or gas leak where one was believed to be. C.B.L. will not be held liable for any actions taken by any other person performing work after C.B.L.'s findings or recommendations. In any event that it is determined C.B.L. is liable for its actions the liability shall be limited to the amount of its fee. The surveying of existing utility lines are only guaranteed for utilities located and marked. Customers should never assume that 100% of sai utilities have been deteced and marked. Some utilities are undetectable. The final proof of location of leak or utility line requires a small excavation from the surface called a "pothole". The property owner or construction contractor performs this work according to California State Law. For <u>all</u> excavation call USA 48 hr.s ahead 1-800-227-2600 to be safe. Please approve and forward this invoice to your A/P department. Payment is due upon receipt unless other arrangements have been during be unless other arrangements have been during the limited to be safe.

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Utility Location

Video Inspection

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CLIENT SIGNATURE

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Portland: 13600 SE Ambler Rd

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RIG## FLATBEDITRUCK## FLATBEDITRUCK##	EQUIPMENT: -1517 COMPRESSOR/JACKHAMMER: -302 FORKUET//HOPPER CONT/SAMPLERFOOTAGE: 1	CASING IAMETER 2: 45 DITT SCREEN DITT SCREEN	ITEM OTV. SAND Z HEADY.MIX	HAUS
TRAILER##SS	242     # OF HYDRO PUNCHES     5       2     TIRS/SCREENS     2       SNOW:TENCE/RENTAL     1/2/5     1	ITT SCREEN	DUICKISET	BARRELS / AUBERIPLUES DIDTBITS SAMPLE LINERS
CREW,WITH PERDIEM	DEPTIH TO WATER	LIPICAP	DENTONITE: POWDER: DENTONITE: PELLETS COATED: PELLETS BENTONITE: GRANULARI	HOLECOVERIPLAYES TRAFFIC DONTAGL PLASTICISHEETING WODGEN/FRAMES
<u>C-Beas</u> E-Harlseind			ASPRALT, PATCH	CORE BOXES
REMARKS				

CLIENT SIGNATURE

OPERATOR SIGNATURE

# SOIL VAPOR MONITORING WELL DETAILS



ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Boring / Well No.: SG-1 Thru SG-5

Installation Date: 9-10 March 2010



Project Number	06-88-610
Project Name:	ARCO Service Station #2035
Location: 1001	San Pablo Ave., Albany, CA
Well Permit No.:	W2009-1115

#### EXPLORATORY BORING

a. Total Depth:	<u>3.5 ft.</u>
b. Diameter:	<u>6 in.</u>
Drilling Method:	Air Knife / Vacuum Extraction

#### WELL CONSTRUCTION

c. Total Well Depth:	<u>3.5 ft.</u>
Well Screen Material: 3/8" dia. Stai	nless Steel Mesh Implant
d. Depth to Top Perforations:	<u>3.0 ft.</u>
e. Perforated Interval From:	<u>3.0</u> to <u>3.5 ft.</u>
f. Length of Tubing:	<u>7 ft.</u>
Tubing Connected to Well Scre	en at: <u>3.0 ft.</u>
Tubing Diameter:	<u>3/8 in.</u>
Tubing Material:	Nylaflow
g. Surface Seal:	<u>0</u> to <u>0.5 ft.</u>
Seal Material:	Concrete
h. Backfill:	<u>0.5</u> to <u>1.0 ft.</u>
Backfill Material:	Neat Cement
i. Seal:	<u>1.0</u> to <u>2.5 ft.</u>
Seal Material:	Bentonite
j. Filter Pack:	2.5 to 3.5 ft.
Filter Pack Material:	#2/12 Sand

### NOTES

# STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

# STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)



	Manifest		TPST So	oil Rec	<b>yclers</b> lous 'Soi	s of Ca ls	A		.↓ Manil	fest # 🗸			
Ι	Date of Shipment:	Responsible for P	'ayment:	Transporte	r Truck #:		Facility #:	Giv	ren by TPST:	Ca(q)	Load #		
	1 1				155		A07	L	/)	1386	ЮЮЦ		
	Generator's Name and Billing Address:				Generator's Phone #:		Generator's US EPA ID No.		213				
	BP WEST COAS P.O. BOX 80249	T PRODUCTS,	LLC		Person to	o Contact:	<u></u>						
	RANCHO SANTA MARGARITA, CA 92689				FAX#:				Customer Account	nt Number with	TPST:		
	Consultant's Name and Billing Address:				Consulta	ant's Phone	<b>#</b> ;						
					Person t	o Contact:							
		•			FAX#:				Customer Account Number with TPST:				
	Generation Site (Transport fro	om): (name & address)			Site Pho	ne #:			BTEX Levels	BTEX Levels IPH Levels			
	02035 1001 SAN PABL	O AVENUE		•	Person t	to Contact:			TPH Levels				
ISUITA	ALBANY, CA 84	706			FAX#:				ÁVG. Levels				
27 COI	Designated Facility (Transpor	t to): (name & address)	4 y 4 pro set pro - 14 *		Facility (SO	Phone #: 0) 862-6	8001		Facility Permit	Numbers			
and/c	12328 HIBISCUS	CYCLERS OF CA S AVENUE	ALIFORNIA	•	Person to Contact: DELLENA JEFFREY				• .				
erator	ADELANTO, CA	.92301	•		FAX#:	0) 246-8	3004						
i en	Transporter Nanie and Mailin	ng Address:			Transporter's Phone #;		Transporter's US EPA ID No.:						
	BELSHIRE				949-460-6200 Person to Contact:		Transporter's DOT No.		<u>913</u>				
	25971 TOWNE	CENTRE DRIVE	•				OTHAS	211	460647		1		
	FOOTHILL RAN	CH, CA 92610		470	FAX#:			· · · · · · · · · · · · · · · · · · ·	Customer Accou	unt Number wit	h TPST:		
	· · · · ·		BESI: 182	108	846	-460-52	210			1			
	Description of Soil	Moisture Content	Contaminate	d by: Appro	ox, Qty:	Descrip	otion of De	livery	Gross Weight	Tare Weight	Net Weig		
	Sand Q Organic Q Clay Q Other Q	0 - 10% 📮 10 - 20% 📮 20% - over 📮	Gas 🖸 Diesel 🗆 Other 🗅		dm				37660	371410	520		
	Sand 🗆 Organic 🗆 Clay 🗆 Other 🖬	0 - 10% 🖸 10 - 20% 📮 20% - over 📮	Gas Diesel Diesel C			1					.24		
	Listany exception to items listed $D_1 D \mp 14C$	above:				5	Scale Ticket#	ł	S	7360	3		
	Generator's and/or consultant's certification: 1/We certify that the soil Sheet completed and certified by me/us for the Generation Site shown of any way.					herein is nothing h	taken entir as been ad	rely from ded or do	those soils desc me to such soil	cribed in the that would	Soil Data alter it in		
	Print or Type Name: Generator D Consultant D				ignature and	l date:	$\overline{\mathbb{Z}}$	lic	5	Month	3011		
oorter	Transporter's certification: I/We acknowledge receipt of the soil descr condition as when received. I/We further certify that this soil is bein without off loading adding to subtracting from or in any way delaying				bed above g directly g deliveru	e and cert transport to such si	ify that su ted from th ite.	ich soil is he Gener	being delivere ation Site to th	ed in exactly 1e Designated	the same d Facility		
~	Print or Type Name:				ignature and	date:	li	L	las2	Month	<u>}</u>		
Transp	LULAS2 "					e							
ility Transp	Discrepancies:												
ig Facility Trans	Discrepancies:		31. 11.		aut	ad above	A		·				
cling Facility Trans	Discrepancies: Recycling Facility certifies	the receipt of the soil	covered by this	manifest exc	ept as not	ed above:							
Recycling Facility Trans	Discrepancies: Recycling Facility certifies Print or Type Name: D. JEFF	the receipt of the soil of REY/J. PROVA	covered by this	manifest exc s	ept as noti	ed above: d date:				P.12-	10		

TRANSPORTER COPY

# APPENDIX B

SOIL VAPOR MONITORING WELL SAMPLING DATA PACKAGE NO.1 (Includes Field Notes, Laboratory Analytical Reports with Chain-of-Custody Documentation)

Project:	Project No.: 196. 85-610	· · · · · · · · · · · · · · · · · · ·
Field Repres	sentative(s): T. Giddes E. Farry Day: Friday Date: 4	/16/10
Time Opsite	: From: //oc To:; From: To:; From:	To:
	ed HASP Safety Glasses Hard Hat Steel Toe Boots Emergency System Shut-off Switches Located Proper Gloves er Level of Barricading Other PPE (describe)	Safety Ve
Weather:	Clear 60.5	
Fouipment I	In Use: SIMMA (ADS)	
-darbutour r		
Visitors:		
TIME	WORK DESCRIPTION:	
100	Arrive 2035	-
1118 8	GHRWGE USing Connister DISI, CEL A268,	Fer .
<u></u>	Sample Constr SG-4 DSOB (EL +47	
122	Bruin. Initial vaccum a purpe constr 30 in Ha	
1127	Purce at 25th	
1128	SG-A samule 30"Ha	
1208	Finish Suppling 56.4 @ 5" Hg	·
	56-5 cm D488 for sample	·····
	36-5 (IIL A166	
<u>nnc</u>	Purge con is to @ 25"	
1232	Infrate, 30"	
1405	Finish S.G. 5 Gample @ 4"Hg	
1230	Ambient container DGOO CEL 4187 @ 30"	
1257	Anbini Q SNHg, Stopped surplin	· · · · · · · · · · · · · · · · · · ·
		· · · · · · · · · · · · · · · · · · ·
		· · · · ·

Project: B	Project No.: 06.88.610
Field Represe	ntative(s): T. Goldres E. Farrer Day: Friday Date: 4/16/10
Time Onsite:	From: 100 To: 1600; From: To:; From: To:;
Signed UST E Proper	HASP Safety Glasses Hard Hat Steel Toe Boots Safety Vest Emergency System Shut-off Switches Located Proper Gloves Level of Barricading Other PPE (describe)
Weather:(	w 60.5
Equipment In	Use: <u>SUMMA ans</u>
Visitors:	
TIME:	WORK DESCRIPTION:
	<u>36-3 sample (an D625, CELA324</u>
1320	$36-3$ punge (a) $20^{-1}$
1324	Vorge a 15"
1326	<u>96-3 byin Sample @ 30"Hz</u>
135 <u>L</u>	56:3 sample(a) 5 Hg
1415	56. 2 Ringe @ 15"
14/23	56-2 Dure (2) 10
1423	56-2 5mm (0 30" 400 277 4325 CEL
1454	56-2 sumple Q G" Ha
1510	56-1 Purge @ 10"Hg
1517	56-1 Shap @ 3011 D484 A 140
1550	SG-1 Sample comprete 5"
1601	offs.je
. <u> </u>	






April 28, 2010

Tom Venus Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642

Subject: Calscience Work Order No.: Client Reference:

10-04-1395 BP 2035 Vapor Intrusion Assessment

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 4/20/2010 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Richard Villey.

Calscience Environmental Laboratories, Inc. Richard Villafania Project Manager

 CA-ELAP ID: 1230
 NELAP ID: 03220CA
 CSDLAC ID: 10109
 SCAQMD ID: 93LA0830

 A
 7440 Lincoln Way, Garden Grove, CA 92841-1427
 TEL:(714) 895-5494
 FAX: (714) 894-7501





Sheeter T

Broadbent & Associates, 1324 Mangrove Ave, Ste Chico, CA 95926-2642			Date Received: Work Order No: Preparation: Method:					A	( 10- STM	04/20/10 04-1395 N/A I D-1946 %v	
Project: BP 2035 Vapor I	ntrusion	Assess	sment							Pa	ge 1 of 2
Client Sample Number			La	lb Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/ Analy	Time /zed	QC Batch ID
SG-1			10-04-1	1395-2-A	04/16/10 15:17	Air	GC 36	N/A	04/20 00:	0/10 00	100420L01
<u>Parameter</u> Methane Carbon Dioxide	<u>Result</u> ND 2.55	<u>RL</u> 0.755 0.755	<u>DF</u> 1.51 1.51	<u>Qual</u>	<u>Parameter</u> Oxygen + Argon			<u>Result</u> 14.1	<u>RL</u> 0.755	<u>DF</u> 1.5′	<u>Qual</u> I
SG-2			<b>10-04-</b> 1	1395-3-A	04/16/10 14:23	Air	GC 36	N/A	04/20 00:	0/10 00	100420L01
<u>Parameter</u> Methane Carbon Dioxide	<u>Result</u> ND 3.87	<u>RL</u> 0.790 0.790	<u>DF</u> 1.58 1.58	<u>Qual</u>	<u>Parameter</u> Oxygen + Argon			<u>Result</u> 17.6	<u>RL</u> 0.790	<u>DF</u> 1.58	Qual 3
SG-3			<b>10-04-</b> 1	1395-4-A	04/16/10 13:26	Air	GC 36	N/A	04/22 00:	2/10 00	100420L01
<u>Parameter</u> Methane Carbon Dioxide	<u>Result</u> ND 2.69	<u>RL</u> 0.845 0.845	<u>DF</u> 1.69 1.69	<u>Qual</u>	<u>Parameter</u> Oxygen + Argon			<u>Result</u> 14.5	<u>RL</u> 0.845	<u>DF</u> 1.69	<u>Qual</u> )
SG-4			<b>10-04-</b> 1	1395-5-A	04/16/10 11:17	Air	GC 36	N/A	04/20 00:	0/10 00	100420L01
<u>Parameter</u> Methane Carbon Dioxide	<u>Result</u> ND ND	<u>RL</u> 0.700 0.700	<u>DF</u> 1.4 1.4	<u>Qual</u>	<u>Parameter</u> Oxygen + Argon			<u>Result</u> 21.8	<u>RL</u> 0.700	<u>DF</u> 1.4	<u>Qual</u>
SG-5			<b>10-04-</b> 1	1395-6-A	04/16/10 12:32	Air	GC 36	N/A	04/20 00:	0/10 00	100420L01
<u>Parameter</u> Methane Carbon Dioxide	<u>Result</u> ND ND	<u>RL</u> 0.770 0.770	<u>DF</u> 1.54 1.54	<u>Qual</u>	<u>Parameter</u> Oxygen + Argon			<u>Result</u> 21.5	<u>RL</u> 0.770	<u>DF</u> 1.54	<u>Qual</u> 1
SG-6 (Duplicate)			10-04-1	1395-7-A	04/16/10 00:00	Air	GC 36	N/A	04/20 00:	0/10 00	100420L01
<u>Parameter</u> Methane Carbon Dioxide	<u>Result</u> ND ND	<u>RL</u> 0.825 0.825	<u>DF</u> 1.65 1.65	<u>Qual</u>	<u>Parameter</u> Oxygen + Argon			<u>Result</u> 21.7	<u>RL</u> 0.825	<u>DF</u> 1.65	Qual 5

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642

Date Received: Work Order No: Preparation: Method: Units:

04/20/10	
10-04-1395	
N/A	
ASTM D-1946	
%v	

Project: BP 2035 Vapor Intrusion Assessment Page 2 of 2											
Client Sample Number			La	b Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/ Analy	Time /zed	QC Batch ID
Station Door Ambient Air			10-04-	1395-8-A	04/16/10 12:30	Air	GC 36	N/A	04/20 00:0	0/10 00	100420L01
Parameter	Result	RI	DF	Qual	Parameter			Result	RI	DF	Qual
Methane Carbon Dioxide	ND ND	0.930 0.930	1.86 1.86	<u></u>	Oxygen + Argor	ı		21.6	0.930	1.8	6
Method Blank			099-03	-002-1,032	N/A	Air	GC 36	N/A	04/20 00:0	0/10 00	100420L01
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual
Methane Carbon Dioxide	ND ND	0.500 0.500	1 1		Oxygen + Argor	ı		ND	0.500	1	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Broadbent & Associates, Inc.					Date Rece	eived:		04/20/10				
1324 Mangrove Ave. Ste	212			Work Order No: 10-0					04-1395			
Chico CA 95926-2642					Prenaratio	n.					NI/A	
01100, 077 00020 2042					Mothody	//.						
										EP	4 TO-15	
					Units:					p	pm (v/v)	
Project: BP 2035 Vapor la	ntrusion A	Assess	ment							Pag	ge 1 of 3	
Client Sample Number			Lal N	b Sample lumber	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/T Analyz	ime zed	QC Batch ID	
SG-1			10-04-1	395-2-A	04/16/10 15:17	Air	GC/MS AA	N/A	04/20/ 15:1	′10 1	100420L01	
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual	Parameter			<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	
Benzene	ND	0.00076	1.51		Xylenes (total)			ND	0.0030	1.51		
Diisopropyl Ether (DIPE)	ND	0.0030	1.51		Tert-Amyl-Meth	yl Ether (T	AME)	ND	0.0030	1.51		
Ethanol	ND	0.0076	1.51		Tert-Butyl Alcol	hol (TBA)		ND	0.0030	1.51		
Ethyl-t-Butyl Ether (ETBE)	ND	0.0030	1.51		Toluene			0.0015	0.00076	1.51		
Ethylbenzene	ND	0.00076	1.51		1,1-Difluoroetha	ane		4.9	1.2	604		
Methyl-t-Butyl Ether (MTBE)	ND	0.0030	1.51		•				<b>•</b> • •	~		
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control</u> Limits	Qua	<u> </u>	Surrogates:			<u>REC (%)</u>	<u>Control</u>	Q	ual	
1 4-Bromofluorobenzene	100	<u>57-129</u>			1 2-Dichloroeth	ane-d4		110	47-137			
Toluene-d8	104	78-156										
SG-2			10-04-1	395-3-A	04/16/10 14:23	Air	GC/MS AA	N/A	04/20/ 16:5	'10 4	100420L01	
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	Parameter			Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	
Benzene	ND	0.00079	1.58		Xylenes (total)			ND	0.0032	1.58	3	
Diisopropyl Ether (DIPE)	ND	0.0032	1.58		Tert-Amyl-Meth	yl Ether (T	AME)	ND	0.0032	1.58	5	
Ethanol	ND	0.0079	1.58		Tert-Butyl Alcol	hol (TBA)		ND	0.0032	1.58	3	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0032	1.58		Toluene			0.0011	0.00079	1.58	8	
Ethylbenzene Methyl t Butyl Ether (MTRE)		0.00079	1.58		1,1-Difluoroetha	ane		4.3	0.13	63.2	2	
Surregetee:		Control	1.00 Oual	I	Surrogates:			REC. (%)	Control	0	ual	
Sunogales.		Limits	Qua	<u>1</u>	ourrogates.			<u>IXEO (70)</u>	Limits	<u> </u>		
1,4-Bromofluorobenzene	99	57-129			1,2-Dichloroeth	ane-d4		109	47-137			
Toluene-d8	99	78-156										
SG-3			10-04-1	395-4-A	04/16/10 13:26	Air	GC/MS AA	N/A	04/21/ 00:1	'10 7	100420L01	
Parameter	Result	RL	DF	Qual	Parameter			Result	RL	DF	Qual	-
Benzene	0.00099	0.00084	1 69		Xvlenes (total)			ND	0.0034	1.69	)	
Diisopropyl Ether (DIPE)	ND	0.0034	1.69		Tert-Amvl-Meth	vl Ether (T	AME)	ND	0.0034	1.69	)	
Ethanol	0.010	0.0084	1.69		Tert-Butyl Alcol	hol (TBA)	,	ND	0.0034	1.69	)	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0034	1.69		Toluene	. ,		0.0029	0.00084	1.69	)	
Ethylbenzene	ND	0.00084	1.69		1,1-Difluoroetha	ane		4.2	0.14	67.6	5	
Methyl-t-Butyl Ether (MTBE)	ND	0.0034	1.69		_				_			
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qua</u>	<u>I</u>	Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u>Q</u>	ual	
1,4-Bromofluorobenzene	99	57-129			1,2-Dichloroeth	ane-d4		109	47-137			
Toluene-d8	99	78-156										

RL - Reporting Limit ,

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DF - Dilution Factor , Qual - Qualifiers

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Date Received:

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Broadbent & Associates, Inc. C

04/20/10

1324 Mangrove Ave, Ste 2	212				Work Ord	er No:				10-	04-1395
Chico, CA 95926-2642					Preparatio	on:					N/A
					Method:					EP.	A TO-15
					Units:					р	pm (v/v)
Project: BP 2035 Vapor Ir	trusion A	Assess	ment							Pag	ge 2 of 3
			Lal	o Sample	Date/Time	Matrice	la eta une e et	Date	Date/T	ïme	
Client Sample Number			Ν	lumber	Collected	Matrix	Instrument	Prepared	Analy	zed	QC Batch ID
SG-4			10-04-1	395-5-A	04/16/10 11:17	Air	GC/MS AA	N/A	04/21/ 15:3	/10 6	100421L01
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual
Benzene	ND	0.0028	5.6		Xylenes (total)			ND	0.011	5.6	
Diisopropyl Ether (DIPE)	ND	0.011	5.6		Tert-Amyl-Meth	nyl Ether (T	AME)	ND	0.011	5.6	
Ethanol	ND	0.028	5.6		Tert-Butyl Alco	hol (TBA)		ND	0.011	5.6	
Ethyl-t-Butyl Ether (ETBE)	ND	0.011	5.6		Toluene			ND	0.0028	5.6	
Ethylbenzene	ND	0.0028	5.6		1,1-Difluoroetha	ane		62	2.2	112	0
Methyl-t-Butyl Ether (MTBE)	ND	0.011	5.6								
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qua</u>	<u>l</u>	Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u>C</u>	tual
1,4-Bromofluorobenzene	97	57-129			1,2-Dichloroeth	ane-d4		92	47-137		
Toluene-d8	97	78-156									
SG-5			10-04-1	395-6-A	04/16/10 12:32	Air	GC/MS AA	N/A	04/21 16:2	/10 3	100421L01
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Benzene	ND	0.0015	3.08		Xylenes (total)			ND	0.0062	3.08	3
Diisopropyl Ether (DIPE)	ND	0.0062	3.08		Tert-Amyl-Meth	nyl Ether (1	TAME)	ND	0.0062	3.08	3
Ethanol	ND	0.015	3.08		Tert-Butyl Alco	hol (TBA)		ND	0.0062	3.08	3
Ethyl-t-Butyl Ether (ETBE)	ND	0.0062	3.08		Toluene			ND	0.0015	3.08	3
Ethylbenzene	ND	0.0015	3.08		1,1-Difluoroetha	ane		27	1.2	616	
Methyl-t-Butyl Ether (MTBE)	ND	0.0062	3.08		_					_	
Surrogates:	<u>REC (%)</u>	<u>Control</u>	<u>Qua</u>	_	Surrogates:			<u>REC (%)</u>	<u>Control</u>	<u>C</u>	lual
		<u>Limits</u>							Limits		
1,4-Bromofluorobenzene	98	57-129			1,2-Dichloroeth	ane-d4		93	47-137		
SG-6 (Duplicate)	98	78-156	10-04-1	395-7-0	04/16/10	Δir	GC/MS AA	N/A	04/21	/10	1004211.01
			10 04 1	000174	00:00		COMIC AA	IWA	17:0	9	100421201
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Benzene	ND	0.00082	1.65		Xylenes (total)			ND	0.0033	1.65	5
Diisopropyl Ether (DIPE)	ND	0.0033	1.65		Tert-Amyl-Meth	nyl Ether (T	AME)	ND	0.0033	1.65	5
Ethanol	ND	0.0082	1.65		Tert-Butyl Alco	hol (TBA)		ND	0.0033	1.65	5
Ethyl-t-Butyl Ether (ETBE)	ND	0.0033	1.65		Toluene			0.0011	0.00082	1.65	5
Ethylbenzene	ND	0.00082	1.65		1,1-Difluoroetha	ane		ND	0.0033	1.65	5
Methyl-t-Butyl Ether (MTBE)	ND	0.0033	1.65								
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qua</u>	l	Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u>C</u>	tual
1,4-Bromofluorobenzene	96	57-129			1,2-Dichloroeth	ane-d4		102	47-137		
Toluene-d8	96	78-156									

RL - Reporting Limit , DF - Dilution Factor

Qual - Qualifiers ,

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Date Received:

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04/20/10

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Broadbent & Associates, Inc. 1324 M Δ. 0 040 Ch

1324 Mangrove Ave, Ste 2 Chico, CA 95926-2642	12				Work Orde	er No: n∙				10-0	)4-1395 N/A
					Method:					FPA	TO-15
					Units:					p	m(v/v)
Project: BP 2035 Vapor In	trusion /	Assess	ment							Pag	e 3 of 3
Client Sample Number			Lat N	o Sample lumber	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Ti Analyz	me ed	QC Batch ID
Station Door Ambient Air			10-04-1	395-8-A	04/16/10 12:30	Air	GC/MS AA	N/A	04/21/ 17:57	10 7	100421L01
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	DF	Qual
Benzene	ND	0.00093	1.86		Xylenes (total)			ND	0.0037	1.86	
Diisopropyl Ether (DIPE)	ND	0.0037	1.86		Tert-Amyl-Methy	yl Ether (T	AME)	ND	0.0037	1.86	
Ethanol	0.020	0.0093	1.86		Tert-Butyl Alcoh	iol (TBA)		ND	0.0037	1.86	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0037	1.86		Toluene			0.0041	0.00093	1.86	
Ethylbenzene	ND	0.00093	1.86		1,1-Difluoroetha	ne		ND	0.0037	1.86	
Methyl-t-Butyl Ether (MTBE)	ND	0.0037	1.86						_	_	
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qual</u>		Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u>Qı</u>	<u>ial</u>
1,4-Bromofluorobenzene	97	57-129			1,2-Dichloroetha	ane-d4		102	47-137		
Toluene-d8	98	78-156									
Method Blank			095-01-	021-8,520	N/A	Air	GC/MS AA	N/A	04/20/ 13:0	10 5	100420L01
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	DF	Qual
Benzene	ND	0.00050	1		Xylenes (total)			ND	0.0020	1	
Diisopropyl Ether (DIPE)	ND	0.0020	1		Tert-Amyl-Methy	yl Ether (T	AME)	ND	0.0020	1	
Ethanol	ND	0.0050	1		Tert-Butyl Alcoh	iol (TBA)		ND	0.0020	1	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0020	1		Toluene			ND	0.00050	1	
Ethylbenzene	ND	0.00050	1		1,1-Difluoroetha	ne		ND	0.0020	1	
Methyl-t-Butyl Ether (MTBE)	ND	0.0020	1								
Surrogates:	<u>REC (%)</u>	Control			-			5-6 (81)	<b>a</b>	~	
		Linsite	Qual		Surrogates:			<u>REC (%)</u>	<u>Control</u>	<u>Qı</u>	lai
	00	Limits	<u>Qual</u>		Surrogates:			<u>REC (%)</u>	Control Limits	<u>Q</u> ı	101
1,4-Bromofluorobenzene	99	<u>Limits</u> 57-129	<u>Qual</u>		Surrogates: 1,2-Dichloroetha	ane-d4		<u>REC (%)</u> 112	<u>Control</u> <u>Limits</u> 47-137	<u>Q</u> ı	<u>101</u>
1,4-Bromofluorobenzene Toluene-d8	99 99	Limits 57-129 78-156	Qual	021-9 522	Surrogates: 1,2-Dichloroetha	ane-d4	CC/MS AA	REC (%) 112	<u>Control</u> <u>Limits</u> 47-137	<u>Q</u> (	1004211.01
1,4-Bromofluorobenzene Toluene-d8 Method Blank	99 99	<u>Limits</u> 57-129 78-156	Qual	021-8,523	Surrogates: 1,2-Dichloroetha N/A	ane-d4 Air	GC/MS AA	REC (%) 112 N/A	Control Limits 47-137 04/21/ 13:59	<u>Q</u> ( 10	100421L01
1,4-Bromofluorobenzene Toluene-d8 Method Blank Parameter	99 99 <u>Result</u>	<u>Limits</u> 57-129 78-156 <u>RL</u>	Qual 095-01-	021-8,523 Qual	Surrogates: 1,2-Dichloroetha N/A Parameter	ane-d4 Air	GC/MS AA	REC (%) 112 N/A Result	Control Limits 47-137 04/21/ 13:55	Q.	100421L01
1,4-Bromofluorobenzene Toluene-d8 Method Blank Parameter Benzene	99 99 <u>Result</u> ND	<u>Limits</u> 57-129 78-156 <u>RL</u> 0.00050	<u>Qual</u> 095-01- DF 1	021-8,523 Qual	Surrogates: 1,2-Dichloroetha N/A Parameter Xylenes (total)	ane-d4 Air	GC/MS AA	REC (%)           112           N/A           Result ND	Control Limits 47-137 04/21/ 13:55 <u>RL</u> 0.0020	<u>Q</u> 10 DF 1	100421L01 Qual
1,4-Bromofluorobenzene Toluene-d8 Method Blank Parameter Benzene Diisopropyl Ether (DIPE)	99 99 <u>Result</u> ND ND	Limits 57-129 78-156 <u>RL</u> 0.00050 0.0020	<u>Qual</u> 095-01- DF 1 1	021-8,523 Qual	Surrogates: 1,2-Dichloroetha N/A Parameter Xylenes (total) Tert-Amyl-Methy	Air Air /I Ether (T	<b>GC/MS AA</b>	REC (%) 112 N/A Result ND ND	Control Limits 47-137 04/21/ 13:59 <u>RL</u> 0.0020 0.0020	<u>Q</u> 10 9 DF 1 1	100421L01 Qual
1,4-Bromofluorobenzene Toluene-d8 Method Blank Parameter Benzene Diisopropyl Ether (DIPE) Ethanol	99 99 <u>Result</u> ND ND ND	Limits 57-129 78-156 <u>RL</u> 0.00050 0.0020 0.0050	Qual 095-01-1 DF 1 1 1	021-8,523 Qual	Surrogates: 1,2-Dichloroetha N/A Parameter Xylenes (total) Tert-Amyl-Methy Tert-Butyl Alcoh	Air Air /I Ether (T ol (TBA)	<b>GC/MS AA</b> AME)	REC (%) 112 N/A N/A Result ND ND ND	Control Limits 47-137 04/21/ 13:55 <u>RL</u> 0.0020 0.0020 0.0020	<u>Q</u> 10 DF 1 1 1	100421L01 Qual
1,4-Bromofluorobenzene Toluene-d8 Method Blank Parameter Benzene Diisopropyl Ether (DIPE) Ethanol Ethyl-t-Butyl Ether (ETBE)	99 99 <u>Result</u> ND ND ND ND ND	Limits 57-129 78-156 <u>RL</u> 0.00050 0.0020 0.0050 0.0020	Qual 095-01- DF 1 1 1 1 1	021-8,523 Qual	Surrogates: 1,2-Dichloroetha N/A Parameter Xylenes (total) Tert-Amyl-Methy Tert-Butyl Alcoh Toluene	Air Air /I Ether (T ol (TBA)	<b>GC/MS AA</b> AME)	REC (%) 112 N/A N/A Result ND ND ND ND	Control Limits 47-137 04/21/ 13:55 <u>RL</u> 0.0020 0.0020 0.0020 0.0020 0.00050	<u>Q</u> 10 0 0 1 1 1 1 1 1	100421L01
1,4-Bromofluorobenzene Toluene-d8 Method Blank Parameter Benzene Diisopropyl Ether (DIPE) Ethanol Ethyl-t-Butyl Ether (ETBE) Ethylbenzene	99 99 <u>Result</u> ND ND ND ND ND ND	Limits 57-129 78-156	Qual 095-01- DF 1 1 1 1 1 1	021-8,523 Qual	Surrogates: 1,2-Dichloroetha N/A Parameter Xylenes (total) Tert-Amyl-Methy Tert-Butyl Alcoh Toluene 1,1-Difluoroetha	Air Air vl Ether (T ol (TBA) ne	<b>GC/MS AA</b> AME)	REC (%) 112 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	Control Limits 47-137 04/21/ 13:59 <u>RL</u> 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020	<u>Q</u> 10 1 1 1 1 1 1	100421L01
1,4-Bromofluorobenzene Toluene-d8 Method Blank Parameter Benzene Diisopropyl Ether (DIPE) Ethanol Ethyl-t-Butyl Ether (ETBE) Ethylbenzene Methyl-t-Butyl Ether (MTBE)	99 99 <u>Result</u> ND ND ND ND ND ND ND ND	Limits 57-129 78-156	Qual 095-01- DF 1 1 1 1 1 1	021-8,523 Qual	Surrogates: 1,2-Dichloroetha N/A Parameter Xylenes (total) Tert-Amyl-Methy Tert-Butyl Alcoh Toluene 1,1-Difluoroetha	Air Air yl Ether (T ol (TBA) ne	<b>GC/MS AA</b> AME)	REC (%) 112 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	Control Limits 47-137 04/21/ 13:59 <u>RL</u> 0.0020 0.0020 0.0020 0.0020 0.0020	Q 10 DF 1 1 1 1 1 1	100421L01 Qual
1,4-Bromofluorobenzene Toluene-d8 Method Blank Parameter Benzene Diisopropyl Ether (DIPE) Ethanol Ethyl-t-Butyl Ether (ETBE) Ethylbenzene Methyl-t-Butyl Ether (MTBE) Surrogates:	99 99 <u>Result</u> ND ND ND ND ND ND ND ND REC (%)	Limits           57-129           78-156           RL           0.00050           0.0020           0.0020           0.00050           0.00050           0.00050           0.00050           0.00050           0.00050           0.00050           0.00050           0.00050           0.00050           0.00020           Control           Limits	Qual 095-01- 1 1 1 1 1 1 2 0 2 0 2 0 2 0 2 0 2 0 2 0	021-8,523 Qual	Surrogates: 1,2-Dichloroetha N/A Parameter Xylenes (total) Tert-Amyl-Methy Tert-Butyl Alcoh Toluene 1,1-Difluoroetha Surrogates:	Air Air yl Ether (T iol (TBA) ne	GC/MS AA	REC (%) 112 N/A N/A ND ND ND ND ND ND ND ND ND ND ND ND ND	Control Limits 47-137 04/21/ 13:59 RL 0.0020 0.0020 0.0020 0.0020 0.00050 0.0020 0.0020 0.00050 0.0020 0.0020	Q 10 5 1 1 1 1 1 1 Q	100421L01 Qual
1,4-Bromofluorobenzene Toluene-d8 Method Blank Parameter Benzene Diisopropyl Ether (DIPE) Ethanol Ethyl-t-Butyl Ether (ETBE) Ethylbenzene Methyl-t-Butyl Ether (MTBE) Surrogates: 1,4-Bromofluorobenzene	99 99 <u>Result</u> ND ND ND ND ND ND ND <u>REC (%)</u> 96	Limits           57-129           78-156           RL           0.00050           0.0020           0.0020           0.00050           0.00020           0.00050           0.00020           0.00050           0.00020           0.00020           0.00020           0.00020           Control           Limits           57-129	Qual 095-01- 1 1 1 1 1 1 2 0 2 0 2 0 2 0 2 0 2 0 2 0	021-8,523 Qual	Surrogates: 1,2-Dichloroetha N/A Parameter Xylenes (total) Tert-Amyl-Methy Tert-Butyl Alcoh Toluene 1,1-Difluoroetha Surrogates: 1,2-Dichloroetha	Air Air yl Ether (T iol (TBA) ne	GC/MS AA	REC (%) 112 N/A N/A Result ND ND ND ND ND ND ND ND ND ND ND ND ND	Control Limits 47-137 04/21/ 13:59 RL 0.0020	<u>Q</u> 10 5 1 1 1 1 1 2 <u>Q</u>	100421L01 Qual

RL - Reporting Limit , DF - Dilution Factor ,

Qual - Qualifiers

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Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642

04/20/10
10-04-1395
N/A
EPA TO-3M

## Project: BP 2035 Vapor Intrusion Assessment

Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SG-1		10-04-1395-2-A	04/16/10 15:17	Air	GC 19	N/A	04/20/10 12:34	100420L01
Parameter	<u>Result</u>	<u>RL</u>	DF	Qual	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	15	1.51		ppm (v/v)			
SG-2		10-04-1395-3-A	04/16/10 14:23	Air	GC 19	N/A	04/20/10 13:10	100420L01
Parameter	<u>Result</u>	<u>RL</u>	DF	Qual	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	16	1.58		ppm (v/v)			
SG-3		10-04-1395-4-A	04/16/10 13:26	Air	GC 19	N/A	04/20/10 13:43	100420L01
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	17	1.69		ppm (v/v)			
SG-4		10-04-1395-5-A	04/16/10 11:17	Air	GC 19	N/A	04/20/10 16:02	100420L01
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	14	1.4		ppm (v/v)			
SG-5		10-04-1395-6-A	04/16/10 12:32	Air	GC 19	N/A	04/20/10 14:17	100420L01
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	15	1.54		ppm (v/v)			
SG-6 (Duplicate)		10-04-1395-7-A	04/16/10 00:00	Air	GC 19	N/A	04/20/10 14:51	100420L01
Parameter	Result	RL	DF	Qual	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	16	1.65		ppm (v/v)			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642

04/20/10
10-04-1395
N/A
EPA TO-3M

#### Project: BP 2035 Vapor Intrusion Assessment

Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Station Door Ambient Air		10-04-1395-8-A	04/16/10 12:30	Air	GC 19	N/A	04/20/10 15:27	100420L01
Parameter	Result	<u>RL</u>	DE	Qual	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	19	1.86		ppm (v/v)	)		
Method Blank		099-12-685-277	N/A	Air	GC 19	N/A	04/20/10 07:41	100420L01
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	10	1		ppm (v/v)	)		

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04/20/10

N/A

10-04-1395

EPA TO-3M

Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642 Date Received: Work Order No: Preparation: Method:

### Project: BP 2035 Vapor Intrusion Assessment

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
SG-4	Air	GC 19	N/A	04/20/10	100420D01
Parameter	Sample Conc	DUP Conc	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
Gasoline Range Organics (C6-C12)	ND	ND	NA	0-20	

RPD - Relative Percent Difference, CL - Control Limit







Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642 Date Received:N/AWork Order No:10-04-1395Preparation:N/AMethod:ASTM D-1946

## Project: BP 2035 Vapor Intrusion Assessment

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Da Analy	te /zed	LCS/LCSD Batc Number	h
099-03-002-1,032	Air	GC 36	N/A	04/20/10		100420L01	
Parameter	LCS %	REC LCSD	<u>%REC %</u>	REC CL	<u>RPD</u>	RPD CL	Qualifiers
Carbon Dioxide	107	106	6	80-120	1	0-30	
Oxygen + Argon	97	97		80-120	0	0-30	
Nitrogen	97	98		80-120	0	0-30	

RPD - Relative Percent Difference, CL - Control Limit





Broadbent & Associates, Inc.	Date Received:
1324 Mangrove Ave, Ste 212	Work Order No:
Chico, CA 95926-2642	Preparation:
	Method:

N/A
10-04-1395
N/A
EPA TO-15

## Project: BP 2035 Vapor Intrusion Assessment

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Da Analy	te /zed	LCS/LCSD E Number	Batch
095-01-021-8,520	Air	GC/MS AA	N/A	04/20/	10	100420L0	)1
Parameter	LCS %REC	LCSD %REC	<u>%REC CL</u>	ME CL	<u>RPD</u>	RPD CL	<b>Qualifiers</b>
Benzene	104	107	60-156	44-172	3	0-40	
Carbon Tetrachloride	93	101	64-154	49-169	9	0-32	
1,2-Dibromoethane	106	112	54-144	39-159	5	0-36	
1,2-Dichlorobenzene	105	112	34-160	13-181	7	0-47	
1,2-Dichloroethane	89	95	69-153	55-167	7	0-30	
1,2-Dichloropropane	101	106	67-157	52-172	4	0-35	
1,4-Dichlorobenzene	104	112	36-156	16-176	7	0-47	
c-1,3-Dichloropropene	121	124	61-157	45-173	3	0-35	
Ethylbenzene	114	120	52-154	35-171	5	0-38	
o-Xylene	110	116	52-148	36-164	6	0-38	
p/m-Xylene	103	110	42-156	23-175	6	0-41	
Tetrachloroethene	103	109	56-152	40-168	6	0-40	
Toluene	107	110	56-146	41-161	3	0-43	
Trichloroethene	103	110	63-159	47-175	7	0-34	
1,1,2-Trichloroethane	102	107	65-149	51-163	5	0-37	
Vinyl Chloride	92	98	45-177	23-199	6	0-36	

Total number of LCS compounds : 16

Total number of ME compounds : 0

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

nM

RPD - Relative Percent Difference, CL - Control Limit





Broadbent & Associates, Inc.	
1324 Mangrove Ave, Ste 212	
Chico, CA 95926-2642	

Date Received:N/AWork Order No:10-04-1395Preparation:N/AMethod:EPA TO-15

## Project: BP 2035 Vapor Intrusion Assessment

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Da Analy	te /zed	LCS/LCSD E Number	Batch
095-01-021-8,523	Air	GC/MS AA	N/A	04/21/	10	100421L0	)1
Parameter	LCS %REC	LCSD %REC	<u>%REC CL</u>	ME CL	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
Benzene	104	104	60-156	44-172	0	0-40	
Carbon Tetrachloride	99	104	64-154	49-169	5	0-32	
1,2-Dibromoethane	104	105	54-144	39-159	0	0-36	
1,2-Dichlorobenzene	106	106	34-160	13-181	0	0-47	
1,2-Dichloroethane	97	97	69-153	55-167	1	0-30	
1,2-Dichloropropane	102	102	67-157	52-172	0	0-35	
1,4-Dichlorobenzene	105	107	36-156	16-176	1	0-47	
c-1,3-Dichloropropene	120	121	61-157	45-173	1	0-35	
Ethylbenzene	111	110	52-154	35-171	1	0-38	
o-Xylene	109	109	52-148	36-164	0	0-38	
p/m-Xylene	102	102	42-156	23-175	0	0-41	
Tetrachloroethene	103	105	56-152	40-168	2	0-40	
Toluene	104	103	56-146	41-161	1	0-43	
Trichloroethene	107	110	63-159	47-175	3	0-34	
1,1,2-Trichloroethane	102	104	65-149	51-163	1	0-37	
Vinyl Chloride	110	109	45-177	23-199	1	0-36	

Total number of LCS compounds : 16

Total number of ME compounds : 0

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

nM

RPD - Relative Percent Difference, CL - Control Limit



AMM



Work Order Number: 10-04-1395

<u>Qualifier</u> AX	<u>Definition</u> Sample too dilute to quantify surrogate.
BA	Relative percent difference out of control.
BA,AY	BA = Relative percent difference out of control. AY = Matrix interference suspected.
BB	Sample > 4x spike concentration.
BF	Reporting limits raised due to high hydrocarbon background.
BH	Reporting limits raised due to high level of non-target analytes.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
BY	Sample received at improper temperature.
BZ	Sample preserved improperly.
CL	Initial analysis within holding time but required dilution.
CQ	Analyte concentration greater than 10 times the blank concentration.
CU	Surrogate concentration diluted to not detectable during analysis.
DF	Reporting limits elevated due to matrix interferences.
DU	Insufficient sample quantity for matrix spike/dup matrix spike.
ET	Sample was extracted past end of recommended max. holding time.
EY	Result exceeds normal dynamic range; reported as a min est.
GR	Internal standard recovery is outside method recovery limit.
IB	CCV recovery abovelimit; analyte not detected.
IH	Calibrtn. verif. recov. below method CL for this analyte.
IJ	Calibrtn. verif. recov. above method CL for this analyte.
J,DX	J=EPA Flag -Estimated value; DX= Value < lowest standard (MQL), but > than MDL.
LA	Confirmatory analysis was past holding time.
LG,AY	LG= Surrogate recovery below the acceptance limit. AY= Matrix interference suspected.
LH,AY	LH= Surrogate recovery above the acceptance limit. AY= Matrix interference suspected.
LM,AY	LM= MS and/or MSD above acceptance limits. See Blank Spike (LCS). AY= Matrix interference suspected.
LN,AY	LN= MS and/or MSD below acceptance limits. See Blank Spike (LCS). AY= Matrix interference suspected.
LQ	LCS recovery above method control limits.
LR	LCS recovery below method control limits.

<u>Qualifier</u> LW	<u>Definition</u> Quantitation of unknown hydrocarbon(s) in sample based on gasoline.
LX	Quantitation of unknown hydrocarbon(s) in sample based on diesel.
MB	Analyte present in the method blank.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
PC	Sample taken from VOA vial with air bubble > 6mm diameter.
PI	Primary and confirm results varied by > than 40% RPD.
RB	RPD exceeded method control limit; % recoveries within limits.
SG	A silica gel cleanup procedure was performed.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.

## Laboratory Management Program LaMP Chain of Custody Record

Atlantic



C	Company	BP/ARC Pro	ject Name:	<u>BP :</u>	2035	5 Var	oor ir	ntrusi	ion A	sses	smen	t		-	Req	Due	Date	(mm	/dd/yy)	<u>، ا</u>				Rush TAT:	Yes	No <u>X</u>
. <u> </u>	A BP affiliated company	BP/ARC Fac	sility No:	_		<u> </u>	_	_					2035		Lab	Work		er Nu	Imber:							
_ab Na	ame: Calscience			BP//	ARC	Facilit	ty Ad	Idress	3:	1001	San I	Pablo	Avenu	Je					Consult	tant/C	ontracto	)r:	Broad	dbent & Associates,	Inc.	
ab Ad	Idress: 7440 Lincoln Way			City,	, Stat	æ, ZIF	P Coc	de:		Albar	ny, CA	٩							Consult	tant/C	ontracto	r Projec	ct No:	06-88-610-5-8	22	
ab PN	I: Richard Villafania			Leac	ead Regulatory Agency: ACEH Addre						Addres	s: 1:	324 Mar	ngrove /	Ave. S	ite. 212, Chico, CA 9	5926									
ab Ph	ione: 714-895-5494			Calif	fornia	a Glob	oal ID	) No.:		T060	)0100	081							Consult	lant/C	ontracto	r PM:	Tom	Venus		
ab Sh	hipping Acent:		9225	۶Enfo	os Pro	oposa	al No:	:		000P	<b>'</b> 9-000	)6							Phone:	5	30-566-1	1400				
_ab Bo	ottle Order No:			Acco	ountir	ng Mo	ode:		Pro	vision	<u> </u>	oc	C-BU		000	C-RM			Email E	DD T	o: tver	nus@br	roadbe	entinc.com		
Other I	info:			Stag	je:	Oper	rate (	(5)	Ac	ctivity:	Fiel	d Ch	aract	eriza	ition (	(1)			Invoice	То:	В	P/ARC	<u></u>	Contractor		
3P/AR	.C EBM: Chuck Carmel				Ма	itrix		Nc	ס. כס	ntain	iers /	Pres	ervat	ive			F	₹equ	ested /	Analy	/ses			Report Typ	ie & QC L(	evel
EBM P	'hone:			<b>」</b> !	'			υ							3	0-15		1946						Star	idard <u>X</u>	
EBM E	:mail:				!			tainer							by ⊤(	by T(	-15	D MT						Full Data Pac	kage	
Lab No.	Sample Description	Date	Time	Soil / Solid	Water / Liquid	Air / Vapor		Total Number of Con	Unpreserved	H₂SO₄	HNO <sub>3</sub>	HCI	Methanol		TPH-GRO (c6-c12)	BTEX, OXYS, EtOH	1,1-DFA by TO	02, CO2, CH4 by AS						Com Note: If sample not co Sample" in comments and initial any preprin	<b>Iments</b> ollected, indic s and single-s ited sample d	ate "No trike out lescription.
l	Purge Canister	9/16/p		$\square$		X	Π	ī	x		$\square$					$\square$	$\square$							Vac-30"		
2	SG-1		1517			X			x						x	x	x	х						Vac-3011		
3	SG-2	1	1423		$\square$	X	$\square$	$\square$	х						x	x	X	x		$\top$				Vac - 30"		
4	SG-3	1	1326			×			х						х	х	x	х		Τ				Vac - 30"		
5	SG-4		1117			X			х						х	x	x	х						Vac·30"		
6	SG-5		1232			X		Π	х						x	x	x	х				Τ		V.C -30"		
7	SG-6 (Duplicate)					X			x						x	x	x	х						Vac -30"		
X	Station Door Ambient Air		1230		$\Box$	X		R	х						х	x	x	х						Vac-30'		
Ľ					$\Box$																	T				
					$\Box$																					
Sample	er's Name: Eriz Farria					R	elin	quis	hed F	3y / A	١ffilia	ition			Da	ite	Tir	ne		/	Accept	ed By	/ Affi	liation	Date	Time
Sample	er's Company: BAI				Z		<u>!</u>			$\geq$					YM	<i>}//c</i>	14	30		D	ules		<u>Aa</u>	. wa	thojo	10:30
Shipme	ent Method: CSO	Ship Date: 1/	91/0																	ľ						ē
Shipme	ent Tracking No: 106 13659	7106A?	5660																							ហ 0
Speci	al Instructions: Eight 6-Liter Sum	ma canisters to l	be batch certifi	ed cor	ntami	inant f	free;	Leak	< chec	k gas:	1,1-D	FA =	1,1-Dif	fluoroc	ethane	(CAS	\$#75-3	;7-6)								<u> </u>
	THIS LINE - LAB USE ONLY: Custo	ody Seals In Plac	ce: Yes / No	.	Temr	ρ Blar	nk: Ye	es / N	10 I	c l	ooler	Temp	on Re	eceipt:			_°F/C		Trip I	Blank:	Yes / N	10	MS	3/MSD Sample Subr	nitted: Yes /	No

Page 16 of 18 1395

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ACCOUNTINO 5100		4 PACKAGE INT
THE BAL		
55 The Cotting Long		
STE/	1-800-322-5555	DECLARED VALUE \$
200 P 5688	WWW.GSO.COM	
PHONE 774-2117-790/	5 DELIVERY SERVICE PRIORITY	
MEANY	BY 10:30 AM DELIVERY TIMES MAY BE LATER IN SOME AREAS	BY 8:00 AM CONSULT YOUR SERVICE GUIDE OR CALL GOLDEN STATE OVERNIGHT.
AL SCIENCE		
NUMBER 714-895-5494		
440 LINCOLN WAY		
DRESS STE/ ROOM -		
XARDEN GROVE		DRIVER # ROUTE #
R INTERNAL BILLING ERENCE WILL APPEAR OUR INVOICE	106193659	
TIONS 20F2	9 GSO TRACKING NUMBER	106193659
DATEL/19/10 SHIPPERS GSO 9255 COMPANY DAT ADDRESS 875 Lotting LM ADDRESS 875 Lotting LM ADDRESS FILL FULLY SENDERS ETTL FULLY NAME PHONE 707-455 719	GOLDEN STATE OVERNIGHT	SHIPPING AIR BILL
CALISCIENCE	DELIVERY TIMES MAY BE LATER IN SOME AR	AM BY 8:00 AM DELIVERY
NAME PHONE 714-895-5494	6 RELEASE	
APPEGE LINCOLN WAY		CREDIT CARD NUMBER EXP. DATE
ADDRESS STE/		
CIGARDEN GROVE		
YOUR INTERNAL BILLING REFERENCE WILL APPEAR ON YOUR INVOICE	106193660	
NAL RUCTIONS 0F2	9 GSO TRACKING NUMBER	106193660

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Calscience	WOF	RK ORDER #:	10-04	-73	95
Environmental Laboratories, Inc. SAMPL	E REC	EIPT FOR	RM	Box <u>/</u>	of <u>~</u>
CLIENT: BROADBENT 4 ASSOCIATES			DATE:	04/20,	/10
TEMPERATURE: Thermometer ID: SC1 (C	Criteria: 0.0 °C	– 6.0 °C, not froze	n)		
Temperature°C + 0.5 °C	(CF) =	°C [	☐ Blank	Sample	
□ Sample(s) outside temperature criteria (PM	I/APM contact	ed by:).			
□ Sample(s) outside temperature criteria but	received on ic	e/chilled on same da	ay of samplir	ıg.	
Received at ambient temperature, plac	ed on ice fo	r transport by Co	urier.		
Ambient Temperature: Air D Filter	Metals (	Only 🗆 PCBs (	Dnly	Initial:	P
CUSTODY SEALS INTACT:					
	Not Intact)	Not Present	□ N/A	Initial:	P(
□ Sample □ □ No (	Not Intact)	Not Present		Initial:	ps
	· · · · · · · · · · · · · · · · · · ·		. <u>.</u>		
SAMPLE CONDITION:			Yes	No	N/A
Chain-Of-Custody (COC) document(s) recei	ved with sam	ples			
COC document(s) received complete			· 120/10	<b></b>	
Collection date/time, matrix, and/or # of containe	ers logged in ba	sed on sample labels.	·		
□ No analysis requested. □ Not relinquished.	🗆 No date/t	ime relinquished.			
Sampler's name indicated on COC	•••••		. 🖬		
Sample container label(s) consistent with CO	DC		Ø		
Sample container(s) intact and good condition	on	••••••			
Correct containers and volume for analyses	requested				
Analyses received within holding time					
Proper preservation noted on COC or sample	le container				
Unpreserved vials received for Volatiles and	alysis		_	_	_/
Volatile analysis container(s) free of headsp	ace				
Tedlar bag(s) free of condensation					Þ
CONTAINER TYPE:				_	
Solid: □4ozCGJ □8ozCGJ □16ozCGJ	□Sleeve(_	) □EnCores <sup>®</sup>	<sup>®</sup> □TerraCo	ores® □	
Water: UVOA UVOAh UVOAna <sub>2</sub> U125A	GB □125A0	GBh □125AGBp		]1AGB <b>na₂</b> □	1AGB <b>s</b>
□500AGB □500AGJ □500AGJs □250/	AGB □2500	GB □250CGBs	□1PB □	]500 <b>PB</b> □50	0PB <b>na</b>
□250PB □250PBn □125PB □125PBznr	na ⊡100PJ	□100PJ <b>na₂</b> □	□	0	
Air: □Tedlar <sup>®</sup> ⊠Summa <sup>®</sup> Other: □	Trip Bla	ink Lot#:	(	Checked by: _	<u> </u>
Container: C: Clear A: Amber P: Plastic G: Glass J: Jar Preservative: h: HCL n: HNO3 na <sub>2</sub> :Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> Na: NaOH	<b>B</b> : Bottle <b>Z</b> : Zipl <b>p</b> : H <sub>3</sub> PO <sub>4</sub> <b>s</b> : H <sub>2</sub> S	oc/Resealable Bag E: D4 znna: ZnAc <sub>2</sub> +NaOH f	Envelope <b>R</b> Field-filtered	eviewed by: _ Scanned by: <sub>-</sub>	<u>-1</u>

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SOP T100\_090 (07/16/09)

Page	18	of	18
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Calscience - WORK ORDER #: 10-0	4-739										
SAMPLE RECEIPT FORM	Box _&_ of	<u>२</u>									
CLIENT: BROADBENT 4 ASSOCIATES DATES	04 /20 /1	0									
TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)											
Temperature°C + 0.5 °C (CF) =°C $\Box$ Blank	Sample										
□ Sample(s) outside temperature criteria (PM/APM contacted by:).											
$\Box$ Sample(s) outside temperature criteria but received on ice/chilled on same day of sample	ing.										
□ Received at ambient temperature, placed on ice for transport by Courier.											
Ambient Temperature: Air D Filter D Metals Only D PCBs Only	Initial: <u>P</u>	ſ									
		1									
CUSTODY SEALS INTACT:	nice of the										
Sample	Initial: <u>AS</u>										
	initial: <u>p</u>										
SAMPLE CONDITION: Yes	No N//	A									
Chain-Of-Custody (COC) document(s) received with samples		]									
COC document(s) received complete		נ									
$\Box$ Collection date/time, matrix, and/or # of containers logged in based on sample labels.											
$\Box$ No analysis requested. $\Box$ Not relinquished. $\Box$ No date/time relinquished.											
Sampler's name indicated on COC		]									
Sample container label(s) consistent with COC		]									
Sample container(s) intact and good condition		]									
Correct containers and volume for analyses requested		]									
Analyses received within holding time		]									
Proper preservation noted on COC or sample container $\Box$		3									
Unpreserved vials received for Volatiles analysis		/									
Volatile analysis container(s) free of headspace											
ledlar bag(s) free of condensation		1									
CONTAINER TYPE:											
Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleeve() □EnCores <sup>®</sup> □TerraC	ores <sup>®</sup>										
Water: DVOA DVOAh DVOAna <sub>2</sub> D125AGB D125AGBh D125AGBp D1AGB	□1AGB <b>na₂</b> □1A0	GB <b>s</b>									
□500AGB □500AGJ □500AGJs □250AGB □250CGB □250CGBs □1PB	⊐500PB □500PE	Bna									
□250PB □250PBn □125PB □125PBznna □100PJ □100PJna₂ □ □	□										
Air: □Tedlar <sup>®</sup> ØSumma <sup>®</sup> Other: □ Trip Blank Lot#:	Checked by:										
Uonumer: C: Clear A: Amper P: Plastic G: Glass J: Jar B: Bottle Z: Zinloc/Resealable Bag F: Envelope	ceviewed hv: 1										

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SOP T100\_090 (07/16/09)





Supplemental Report 1

April 29, 2010

The original report has been revised/corrected.

Tom Venus Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642

Subject: Calscience Work Order No.: 1 Client Reference:

10-04-1395 BP 2035 Vapor Intrusion Assessment

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 4/20/2010 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Richard Ville

Calscience Environmental Laboratories, Inc. Richard Villafania Project Manager

 CA-ELAP ID: 1230
 NELAP ID: 03220CA
 CSDLAC ID: 10109
 SCAQMD ID: 93LA0830

 A
 7440 Lincoln Way, Garden Grove, CA 92841-1427
 TEL:(714) 895-5494
 FAX: (714) 894-7501

# alscience nvironmental aboratories, Inc.

Date Received:

04/20/10

# IN ACCORD

Broadbent & Associates, Inc. 1 С

1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642					Work Orde Preparation Method: Units:	r No: n:			Æ	10- ASTM	04-1395 N/A 1 D-1946 %v
Project: BP 2035 Vapor	Intrusion	Asses	sment							Pa	ge 1 of 2
Client Sample Number			La	ab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date Ana	/Time lyzed	QC Batch ID
SG-1			10-04-	1395-2-A	04/16/10 15:17	Air	GC 36	N/A	04/2 00	20/10 :00	100420L01
Parameter	<u>Result</u>	<u>RL</u>	DF	Qual	Parameter			Result	<u>RL</u>	DF	Qual
Methane Carbon Dioxide	ND 2.55	0.755 0.755	1.51 1.51		Oxygen + Argon			14.1	0.755	1.5	1
SG-2			10-04-	1395-3-A	04/16/10 14:23	Air	GC 36	N/A	04/2 00	20/10 :00	100420L01
Parameter	<u>Result</u>	<u>RL</u>	DF	Qual	Parameter			Result	<u>RL</u>	<u>DF</u>	Qual
Methane Carbon Dioxide	ND 3.87	0.790 0.790	1.58 1.58		Oxygen + Argon			17.6	0.790	1.58	3
SG-3			10-04-	1395-4-A	04/16/10 13:26	Air	GC 36	N/A	04/2 00	2/10 :00	100420L01
Parameter	Result	<u>RL</u>	DF	Qual	Parameter			Result	<u>RL</u>	DF	Qual
Methane Carbon Dioxide	ND 2.69	0.845 0.845	1.69 1.69		Oxygen + Argon			14.5	0.845	1.69	9
SG-4			10-04-	1395-5-A	04/16/10 11:17	Air	GC 36	N/A	04/2 00	20/10 :00	100420L01
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	Parameter			Result	<u>RL</u>	DF	Qual
Methane Carbon Dioxide	ND ND	0.700 0.700	1.4 1.4		Oxygen + Argon			21.8	0.700	1.4	
SG-5			10-04-	1395-6-A	04/16/10 12:32	Air	GC 36	N/A	04/2 00	20/10 :00	100420L01
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	DF	Qual
Methane Carbon Dioxide	ND ND	0.770 0.770	1.54 1.54		Oxygen + Argon			21.5	0.770	1.54	4
SG-6 (Duplicate)			10-04-	1395-7-A	04/16/10 00:00	Air	GC 36	N/A	04/2 00	20/10 :00	100420L01
Parameter	<u>Result</u>	<u>RL</u>	DF	Qual	Parameter			<u>Result</u>	RL	DF	Qual
Methane Carbon Dioxide	ND ND	0.825 0.825	1.65 1.65		Oxygen + Argon			21.7	0.825	1.6	5
Station Door Ambient Air			10-04-	1395-8-A	04/16/10 12:30	Air	GC 36	N/A	04/2 00	20/10 :00	100420L01
Parameter	Result	RL	DF	Qual	Parameter			Result	RL	DF	Qual
Methane Carbon Dioxide	ND ND	0.930 0.930	1.86 1.86		Oxygen + Argon			21.6	0.930	1.86	6

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Method:

Units:



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N/A

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Page 2 of 2

Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642

Date Received: 04/20/10 Work Order No: 10-04-1395 Preparation: ASTM D-1946

Project: BP 2035 Vapor Intrusion Assessment

Client Sample Number			La	ab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Ti Analyz	me ed	QC Batch ID
Method Blank			099-03	-002-1,032	N/A	Air	GC 36	N/A	04/20/ 00:00	10 )	100420L01
<u>Parameter</u> Methane Carbon Dioxide	<u>Result</u> ND ND	<u>RL</u> 0.500 0.500	<u>DF</u> 1 1	<u>Qual</u>	<u>Parameter</u> Oxygen + Argor	1		<u>Result</u> ND	<u>RL</u> 0.500	<u>DF</u> 1	<u>Qual</u>

RL - Reporting Limit , DF - Dilution Factor Qual - Qualifiers ,

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Date Received:

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04/20/10

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Broadbent & Associates, Inc. 1324 Mangrove Ave. Ste 212 Chic

1324 Mangrove Ave, Ste 2	12				Work Ord	er No:				10-	04-1395
Chico, CA 95926-2642					Preparatio	on:					N/A
					Method:					EP/	A TO-15
					Units:						mg/m3
Project: BP 2035 Vapor In	trusion /	Assess	ment							Pag	ge 1 of 3
Client Sample Number			Lal	b Sample	Date/Time	Matrix	Instrument	Date Prepared	Date/T	ime	QC Batch ID
SG-1			10-04-1	395-2-A	04/16/10	Δir	GC/MS AA	N/A	04/20	/10	1004201.01
			10-04-1	333-2-A	15:17	All	GC/MIG AA	IVA	15:1	1	100420201
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Benzene	ND	0.0024	1.51		Xylenes (total)			ND	0.013	1.51	l
Diisopropyl Ether (DIPE)	ND	0.013	1.51		Tert-Amyl-Meth	nyl Ether (1	ΓAME)	ND	0.013	1.51	l
Ethanol	ND	0.014	1.51		Tert-Butyl Alco	hol (TBA)		ND	0.0092	1.51	l
Ethyl-t-Butyl Ether (ETBE)	ND	0.013	1.51		Toluene			0.0058	0.0028	1.51	l
Ethylbenzene	ND	0.0033	1.51		1,1-Difluoroeth	ane		13	3.3	604	
Methyl-t-Butyl Ether (MTBE)	ND	0.011	1.51								
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qua</u>	<u>I</u>	Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u>C</u>	lual
1,4-Bromofluorobenzene	100	57-129			1,2-Dichloroeth	nane-d4		110	47-137		
Toluene-d8	104	78-156									
SG-2			10-04-1	395-3-A	04/16/10 14:23	Air	GC/MS AA	N/A	04/20 16:5	/10 54	100420L01
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>
Benzene	ND	0.0025	1.58		Xylenes (total)			ND	0.014	1.58	3
Diisopropyl Ether (DIPE)	ND	0.013	1.58		Tert-Amyl-Meth	nyl Ether (1	ΓAME)	ND	0.013	1.58	3
Ethanol	ND	0.015	1.58		Tert-Butyl Alco	hol (TBA)		ND	0.0096	1.58	3
Ethyl-t-Butyl Ether (ETBE)	ND	0.013	1.58		Toluene			0.0043	0.0030	1.58	3
Ethylbenzene	ND	0.0034	1.58		1,1-Difluoroeth	ane		12	0.34	63.2	2
Methyl-t-Butyl Ether (MTBE)	ND	0.011	1.58								
Surrogates:	<u>REC (%)</u>	<u>Control</u>	<u>Qua</u>	<u>I</u>	Surrogates:			<u>REC (%)</u>	<u>Control</u>	<u>C</u>	lual
1.4 Bromofluorobonzono	99	57-120			1.2 Dichlorooth	ana di		109	<u>47-137</u>		
Toluene-d8	99	78-156			1,2-Dichioroeu	10116-04		100	47-107		
SG-3			10-04-1	395-4-A	04/16/10 13:26	Air	GC/MS AA	N/A	04/21 00:1	/10 7	100420L01
Parameter	Result	RI	DF	Qual	Parameter			Result	RI	DF	Qual
Benzene	0.0033	0.0027	1.60		Xylenes (total)				0.015	1.60	)
Diisopropyl Ether (DIPE)	0.0032 ND	0.0027	1.69		Tort-Amyl-Moth	ovi Ether (1			0.015	1.05	9
Ethanol	0.020	0.014	1.09		Tert-Rutyl Alco	hol (TRΔ)			0.014	1.03	2
Ethyl-t-Butyl Ether (FTRE)		0.014	1.09		Toluene			0.011	0.0032	1.05	, A
Ethylbenzene	ND	0.0037	1 60		1.1-Difluoroeth	ane		11	0.37	67.6	,
Methyl-t-Butyl Ether (MTBE)	ND	0.012	1.69		.,. 5				5.01	07.0	,
Surrogates:		Control	0.13	I	Surrogotoo			REC. (%)	Control	C	Jual
	<u>REC (%)</u>	Limits	Qua	-	Surroyales.			<u>INEO (70)</u>	Limits	9	
1 4-Bromofluorobenzene	<u>REC (%)</u> 99	Limits 57-129	<u>Qua</u>	<u>-</u>	<u>Surroyales.</u>	ane-d4		109	<u>Limits</u> 47-137	9	

RL - Reporting Limit , DF - Dilution Factor

Qual - Qualifiers ,

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# alscience nvironmental aboratories, Inc.

Date Received:

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04/20/10

IN ACCORD

Broadbent & Associates, Inc. 1324 Mangrove Ave. Ste 212 Chic

1324 Mangrove Ave, Ste	212				Work Ord	er No:				10-	04-1395
Chico, CA 95926-2642					Preparatio	on:					N/A
					Method:					EP.	A TO-15
					Units:						mg/m3
Project: BP 2035 Vapor	Intrusion /	Assess	ment							Pa	ge 2 of 3
Client Comple Number			Lab	Sample	Date/Time	Matrix	Instrument	Date	Date/T	ime	OC Batch ID
			Nu		Collected			Prepared	Analyz		
SG-4			10-04-13	95-5-A	04/16/10 11:17	Air	GC/MS AA	N/A	04/21/ 15:3	6	100421L01
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual	Parameter			<u>Result</u>	<u>RL</u>	DF	Qual
Benzene	ND	0.0089	5.6		Xylenes (total)			ND	0.049	5.6	
Diisopropyl Ether (DIPE)	ND	0.047	5.6		Tert-Amyl-Meth	nyl Ether (1	ΓAME)	ND	0.047	5.6	
Ethanol	ND	0.053	5.6		Tert-Butyl Alco	hol (TBA)		ND	0.034	5.6	
Ethyl-t-Butyl Ether (ETBE)	ND	0.047	5.6		Toluene			ND	0.011	5.6	
Ethylbenzene	ND	0.012	5.6		1,1-Difluoroeth	ane		170	6.1	112	0
Methyl-t-Butyl Ether (MTBE)	ND	0.040	5.6								
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qual</u>		Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u>C</u>	<u>)ual</u>
1,4-Bromofluorobenzene	97	57-129			1,2-Dichloroeth	nane-d4		92	47-137		
Toluene-d8	97	78-156									
SG-5			10-04-13	95-6-A	04/16/10 12:32	Air	GC/MS AA	N/A	04/21/ 16:2	/10 3	100421L01
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	DF	Qual
Benzene	ND	0.0049	3.08		Xylenes (total)			ND	0.027	3.08	3
Diisopropyl Ether (DIPE)	ND	0.026	3.08		Tert-Amyl-Meth	nyl Ether (1	ΓΑΜΕ)	ND	0.026	3.08	3
Ethanol	ND	0.029	3.08		Tert-Butyl Alco	hol (TBA)		ND	0.019	3.08	3
Ethyl-t-Butyl Ether (ETBE)	ND	0.026	3.08		Toluene			ND	0.0058	3.08	3
Ethylbenzene	ND	0.0067	3.08		1,1-Difluoroeth	ane		72	3.3	616	
Methyl-t-Butyl Ether (MTBE)	ND	0.022	3.08								
Surrogates:	<u>REC (%)</u>	<u>Control</u>	Qual		Surrogates:			<u>REC (%)</u>	<u>Control</u>	<u>C</u>	<u>Qual</u>
		<u>Limits</u>							<u>Limits</u>		
1,4-Bromofluorobenzene	98	57-129			1,2-Dichloroeth	nane-d4		93	47-137		
Toluene-d8	98	78-156									
SG-6 (Duplicate)			10-04-13	95-7-A	04/16/10 00:00	Air	GC/MS AA	N/A	04/21/ 17:0	/10 9	100421L01
Parameter	Result	RL	DF (	Qual	Parameter			Result	RL	DF	Qual
Benzene	ND	0.0026	1 65		Xvlenes (total)			ND	0.014	1.6!	5
Dijsopropyl Ether (DIPE)	ND	0.014	1.65		Tert-Amvl-Meth	nvl Ether (1	TAME)	ND	0.014	1.6	5
Ethanol	ND	0.016	1.65		Tert-Butyl Alco	hol (TBA)	,	ND	0.010	1.6	5
Ethyl-t-Butyl Ether (ETBE)	ND	0.014	1.65		Toluene	, ,		0.0041	0.0031	1.6	5
Ethylbenzene	ND	0.0036	1.65		1,1-Difluoroeth	ane		ND	0.0089	1.6	5
Methyl-t-Butyl Ether (MTBE)	ND	0.012	1.65								
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qual</u>		Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u>C</u>	<u>Qual</u>
1.4-Bromofluorobenzene	96	57-129			1.2-Dichloroeth	nane-d4		102	47-137		
Toluono de	96	78-156			,						
i oluene-uo											

RL - Reporting Limit , DF - Dilution Factor

Qual - Qualifiers ,

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# Calscience nvironmental aboratories, Inc.

Date Received:

Work Order No:



04/20/10

10-04-1395

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Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642

Chico, CA 95926-2642					Preparatio	on:					N/A
					Method:					ΕP	A TO-15
					Units:						mg/m3
Project: BP 2035 Vapor I	ntrusion A	Assess	ment							Ра	ge 3 of 3
Client Sample Number			Lat N	o Sample lumber	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/ Analy	Time /zed	QC Batch ID
Station Door Ambient Air			10-04-1	395-8-A	04/16/10 12:30	Air	GC/MS AA	N/A	04/21 17:	1/10 57	100421L01
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual	Parameter			<u>Result</u>	<u>RL</u>	DF	Qual
Benzene	ND	0.0030	1.86		Xylenes (total)			ND	0.016	1.8	6
Diisopropyl Ether (DIPE)	ND	0.016	1.86		Tert-Amyl-Meth	yl Ether (	ΓΑΜΕ)	ND	0.016	1.8	6
Ethanol	0.039	0.018	1.86		Tert-Butyl Alcol	hol (TBA)		ND	0.011	1.8	6
Ethyl-t-Butyl Ether (ETBE)	ND	0.016	1.86		Toluene			0.015	0.0035	1.8	6
Ethylbenzene	ND	0.0040	1.86		1,1-Difluoroetha	ane		ND	0.010	1.8	6
Methyl-t-Butyl Ether (MTBE)	ND	0.013	1.86								
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qual</u>		Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u>(</u>	<u>Qual</u>
1,4-Bromofluorobenzene	97	57-129			1,2-Dichloroeth	ane-d4		102	47-137		
Toluene-d8	98	78-156									
Method Blank			095-01-	021-8,520	N/A	Air	GC/MS AA	N/A	04/20 13:	0/10 05	100420L01
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Benzene	ND	0.0016	1		Xylenes (total)			ND	0.0087	1	
Diisopropyl Ether (DIPE)	ND	0.0084	1		Tert-Amyl-Meth	yl Ether (	ΓΑΜΕ)	ND	0.0084	1	
Ethanol	ND	0.0094	1		Tert-Butyl Alcol	hol (TBA)		ND	0.0061	1	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0084	1		Toluene			ND	0.0019	1	
Ethylbenzene	ND	0.0022	1		1,1-Difluoroetha	ane		ND	0.0054	1	
Methyl-t-Butyl Ether (MTBE)	ND	0.0072	1								
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qual</u>		Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u>(</u>	Qual
1,4-Bromofluorobenzene	99	57-129			1,2-Dichloroeth	ane-d4		112	47-137		
Toluene-d8	99	78-156									
Method Blank			095-01-	021-8,523	N/A	Air	GC/MS AA	N/A	04/21 13:	I/10 59	100421L01
Parameter	Result	RL	DF	Qual	Parameter			Result	RL	DF	Qual
Benzene		0.0016	1		Xylenes (total)				0.0087	1	
Diisopropyl Ether (DIPE)	ND	0.0010	1		Tert-Amvl-Meth	vl Ether (1	TAME)	ND	0.0007	1	
Ethanol	ND	0.0094	1		Tert-Butvl Alcol	hol (TBA)		ND	0.0061	1	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0084	1		Toluene			ND	0.0019	1	
Ethylbenzene	ND	0.0022	1		1,1-Difluoroetha	ane		ND	0.0054	1	
Methyl-t-Butyl Ether (MTBE)	ND	0.0072	1		,	-				•	
Surrogates:	<u>REC (%)</u>	Control Limits	<u>Qual</u>		Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u>(</u>	Qual
1.4-Bromofluorobenzene	96	57-129			1.2-Dichloroeth	ane-d4		107	47-137		
Toluene-d8	97	78-156			,						

RL - Reporting Limit , DF - Dilution Factor

or , Qual - Qualifiers

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Page 1 of 2



A DE DE LA ACCORDANCE

Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642

Date Received:	04/20/10
Work Order No:	10-04-1395
Preparation:	N/A
Method:	EPA TO-3M

#### Project: BP 2035 Vapor Intrusion Assessment

Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SG-1		10-04-1395-2-A	04/16/10 15:17	Air	GC 19	N/A	04/20/10 12:34	100420L01
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	15	1.51		ppm (v/v)			
SG-2		10-04-1395-3-A	04/16/10 14:23	Air	GC 19	N/A	04/20/10 13:10	100420L01
Parameter	Result	<u>RL</u>	DF	Qual	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	16	1.58		ppm (v/v)			
SG-3		10-04-1395-4-A	04/16/10 13:26	Air	GC 19	N/A	04/20/10 13:43	100420L01
Parameter	<u>Result</u>	<u>RL</u>	DF	Qual	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	17	1.69		ppm (v/v)			
SG-4		10-04-1395-5-A	04/16/10 11:17	Air	GC 19	N/A	04/20/10 16:02	100420L01
Parameter	<u>Result</u>	<u>RL</u>	DF	Qual	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	14	1.4		ppm (v/v)			
SG-5		10-04-1395-6-A	04/16/10 12:32	Air	GC 19	N/A	04/20/10 14:17	100420L01
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	15	1.54		ppm (v/v)			
SG-6 (Duplicate)		10-04-1395-7-A	04/16/10 00:00	Air	GC 19	N/A	04/20/10 14:51	100420L01
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	16	1.65		ppm (v/v)			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Page 2 of 2





Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642

Date Received:	04/20/10
Work Order No:	10-04-1395
Preparation:	N/A
Method:	EPA TO-3M

### Project: BP 2035 Vapor Intrusion Assessment

								-	
Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID	
Station Door Ambient Air		10-04-1395-8-A	04/16/10 12:30	Air	GC 19	N/A	04/20/10 15:27	100420L01	
Parameter	Result	<u>RL</u>	DF	Qual	<u>Units</u>				
Gasoline Range Organics (C6-C12)	ND	19	1.86		ppm (v/v)	)			
Method Blank		099-12-685-277	N/A	Air	GC 19	N/A	04/20/10 07:41	100420L01	
Parameter	<u>Result</u>	<u>RL</u>	DF	Qual	<u>Units</u>				
Gasoline Range Organics (C6-C12)	ND	10	1		ppm (v/v)	)			







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Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642 Date Received: Work Order No: Preparation: Method:

## 04/20/10 10-04-1395 N/A EPA TO-3M

## Project: BP 2035 Vapor Intrusion Assessment

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
SG-4	Air	GC 19	N/A	04/20/10	100420D01
Parameter	Sample Conc	DUP Conc	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
Gasoline Range Organics (C6-C12)	ND	ND	NA	0-20	

RPD - Relative Percent Difference, CL - Control Limit





Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642 Date Received:N/AWork Order No:10-04-1395Preparation:N/AMethod:ASTM D-1946

## Project: BP 2035 Vapor Intrusion Assessment

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Da Analy	te /zed	LCS/LCSD Batc Number	h
099-03-002-1,032	Air	GC 36	N/A	04/20	/10	100420L01	
Parameter	LCS %	REC LCSD	<u>%REC %</u>	REC CL	<u>RPD</u>	RPD CL	Qualifiers
Carbon Dioxide	107	106	3	80-120	1	0-30	
Oxygen + Argon	97	97		80-120	0	0-30	
Nitrogen	97	98		80-120	0	0-30	

RPD - Relative Percent Difference, CL - Control Limit







Broadbent & Associates, Inc.	
1324 Mangrove Ave, Ste 212	
Chico, CA 95926-2642	

Date Received:N/AWork Order No:10-04-1395Preparation:N/AMethod:EPA TO-15

## Project: BP 2035 Vapor Intrusion Assessment

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Da Anal <u>y</u>	ite ∕zed	LCS/LCSD I Numbe	Batch r
095-01-021-8,520	Air	GC/MS AA	N/A	04/20/	'10	100420L	01
Parameter	LCS %REC	LCSD %REC	<u>%REC CL</u>	ME CL	<u>RPD</u>	RPD CL	<b>Qualifiers</b>
Benzene	104	107	60-156	44-172	3	0-40	
Carbon Tetrachloride	93	101	64-154	49-169	9	0-32	
1,2-Dibromoethane	106	112	54-144	39-159	5	0-36	
1,2-Dichlorobenzene	105	112	34-160	13-181	7	0-47	
1,2-Dichloroethane	89	95	69-153	55-167	7	0-30	
1,2-Dichloropropane	101	106	67-157	52-172	4	0-35	
1,4-Dichlorobenzene	104	112	36-156	16-176	7	0-47	
c-1,3-Dichloropropene	121	124	61-157	45-173	3	0-35	
Ethylbenzene	114	120	52-154	35-171	5	0-38	
o-Xylene	110	116	52-148	36-164	6	0-38	
p/m-Xylene	103	110	42-156	23-175	6	0-41	
Tetrachloroethene	103	109	56-152	40-168	6	0-40	
Toluene	107	110	56-146	41-161	3	0-43	
Trichloroethene	103	110	63-159	47-175	7	0-34	
1,1,2-Trichloroethane	102	107	65-149	51-163	5	0-37	
Vinyl Chloride	92	98	45-177	23-199	6	0-36	

Total number of LCS compounds : 16

Total number of ME compounds : 0

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

nM

RPD - Relative Percent Difference, CL - Control Limit





Broadbent & Associates, Inc.	Date Received:	N/A
1324 Mangrove Ave, Ste 212	Work Order No:	10-04-1395
Chico, CA 95926-2642	Preparation:	N/A
	Method:	EPA TO-15

### Project: BP 2035 Vapor Intrusion Assessment

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Da Analy	ite ∕zed	LCS/LCSD Batch Number		
095-01-021-8,523	Air	GC/MS AA	N/A	04/21/	'10	100421L0	)1	
Parameter	LCS %REC	LCSD %REC	<u>%REC CL</u>	ME CL	<u>RPD</u>	RPD CL	<b>Qualifiers</b>	
Benzene	104	104	60-156	44-172	0	0-40		
Carbon Tetrachloride	99	104	64-154	49-169	5	0-32		
1,2-Dibromoethane	104	105	54-144	39-159	0	0-36		
1,2-Dichlorobenzene	106	106	34-160	13-181	0	0-47		
1,2-Dichloroethane	97	97	69-153	55-167	1	0-30		
1,2-Dichloropropane	102	102	67-157	52-172	0	0-35		
1,4-Dichlorobenzene	105	107	36-156	16-176	1	0-47		
c-1,3-Dichloropropene	120	121	61-157	45-173	1	0-35		
Ethylbenzene	111	110	52-154	35-171	1	0-38		
o-Xylene	109	109	52-148	36-164	0	0-38		
p/m-Xylene	102	102	42-156	23-175	0	0-41		
Tetrachloroethene	103	105	56-152	40-168	2	0-40		
Toluene	104	103	56-146	41-161	1	0-43		
Trichloroethene	107	110	63-159	47-175	3	0-34		
1,1,2-Trichloroethane	102	104	65-149	51-163	1	0-37		
Vinyl Chloride	110	109	45-177	23-199	1	0-36		

Total number of LCS compounds : 16

Total number of ME compounds : 0

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

nM

RPD - Relative Percent Difference, CL - Control Limit



AMM



Work Order Number: 10-04-1395

<u>Qualifier</u> AX	Definition Sample too dilute to quantify surrogate.
BA	Relative percent difference out of control.
BA,AY	BA = Relative percent difference out of control. AY = Matrix interference suspected.
BB	Sample > $4x$ spike concentration.
BF	Reporting limits raised due to high hydrocarbon background.
BH	Reporting limits raised due to high level of non-target analytes.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
BY	Sample received at improper temperature.
BZ	Sample preserved improperly.
CL	Initial analysis within holding time but required dilution.
CQ	Analyte concentration greater than 10 times the blank concentration.
CU	Surrogate concentration diluted to not detectable during analysis.
DF	Reporting limits elevated due to matrix interferences.
DU	Insufficient sample quantity for matrix spike/dup matrix spike.
ET	Sample was extracted past end of recommended max. holding time.
EY	Result exceeds normal dynamic range; reported as a min est.
GR	Internal standard recovery is outside method recovery limit.
IB	CCV recovery abovelimit; analyte not detected.
IH	Calibrtn. verif. recov. below method CL for this analyte.
IJ	Calibrtn. verif. recov. above method CL for this analyte.
J,DX	J=EPA Flag -Estimated value; DX= Value < lowest standard (MQL), but > than MDL.
LA	Confirmatory analysis was past holding time.
LG,AY	LG= Surrogate recovery below the acceptance limit. AY= Matrix interference suspected.
LH,AY	LH= Surrogate recovery above the acceptance limit. AY= Matrix interference suspected.
LM,AY	LM= MS and/or MSD above acceptance limits. See Blank Spike (LCS). AY= Matrix interference suspected.
LN,AY	LN= MS and/or MSD below acceptance limits. See Blank Spike (LCS). AY= Matrix interference suspected.
LQ	LCS recovery above method control limits.
LR	LCS recovery below method control limits.

<u>Qualifier</u> LW	<u>Definition</u> Quantitation of unknown hydrocarbon(s) in sample based on gasoline.
LX	Quantitation of unknown hydrocarbon(s) in sample based on diesel.
MB	Analyte present in the method blank.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
PC	Sample taken from VOA vial with air bubble > 6mm diameter.
PI	Primary and confirm results varied by > than 40% RPD.
RB	RPD exceeded method control limit; % recoveries within limits.
SG	A silica gel cleanup procedure was performed.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.

## Laboratory Management Program LaMP Chain of Custody Record

Atlantic



C	Sompany	BP/ARC Pro	oject Name:	<u>BP</u>	2035	5 Var	<u>por ir</u>	ntrus	ion A	sses	smen	<u>t</u>		-	Req	Due	Date	(mm	/dd/yy)	r _			$\geq$	Rush TAT:	Yes	No X
1	A BP affiliated company	BP/ARC Fac	cility No:	_		_	_	_	_				2035		Lab	Work	Cord	er Nu	.mber:							
_ab Na	ame: Calscience			BP//	ARC	Facili	ity Ad	Idress	3:	1001	San F	Pablo	Avenu	ie					Consult	ant/Co	ontracto	or:	Broad	dbent & Associates,	Inc.	
_ab Ad	Idress: 7440 Lincoln Way			City,	, Stat	æ, ZIF	P Coc	de:		Albar	ny, CA	1							Consult	ant/Co	ontracto	or Projec	ct No:	06-88-610-5-8	22	
ab PN	I: Richard Villafania			Lead Regulatory Agency: ACEH						Address	s: 13	324 Mar	ngrove /	Ave. S	ste. 212, Chico, CA 9	)5926										
ab Ph	ione: 714-895-5494			Calif	fornia	ı Glot	oal ID	) No.:		т060	01000	081							Consult	ant/Co	ontracto	or PM:	Tom	Venus		
ab Sh	nipping Acent:		9225	5 Enfc	os Pro	oposa	al No:	:		000P	°9-000	16							Phone:	53	30-566-1	1400				
_ab Bo	ottle Order No:			Accr	ountir	ng Mc	ode:		Pro	vision	<u>X</u>	_ 00	C-BU		000	C-RM			Email E	DD To	o: tver	nus@br	roadbe	entinc.com		
Other I	Info:			Stag	je:	Oper	rate (	(5)	Ac	ctivity:	Field	d Ch	aract	eriza	ition (	(1)			Invoice	То:	В	P/ARC	; <u>x</u>	Contractor		
3P/AR	.C EBM: Chuck Carmel				Ма	trix		Nc	ס. Co	ntain	iers /	Pres	ervati	ive			F	Requ	ested /	Analy	ses			Report Typ	ie & QC Li	evel
EBM P	'hone:	<u> </u>		_	'		[ ]	ഴ							3	0-15		1946						Star	idard <u>X</u>	
EBM E	imail:			_	'			tainer							by ⊤(	by T(	-15	ML						Full Data Pac	:kage	
Lab No.	Sample Description	Date	Time	Soil / Solid	Water / Liquid	Air / Vapor		Total Number of Con	Unpreserved	H₂SO₄	HNO3	HCI	Methanol		TPH-GRO (c6-c12)	BTEX, OXYS, EtOH	1,1-DFA by TC	02, CO2, CH4 by AS						Com Note: if sample not α Sample" in comments and initial any preprin	<b>1ments</b> ollected, indic s and single-s nted sample d	ate "No strike out lescription.
Ĩ	Purge Canister	9/16/p		$\square$		x	$\square$	ī	x								$\square$				$\top$		$\square$	14c-30"		
2	SG-1		1517	$\square$		X	$\square$	$\prod$	X				$\square$		x	x	x	x						Vac-3011		
3	SG-2	1	1423	$\Box$		X	$\square$	Π	X				$\square$		X	x	x	X						Vac - 30"		
4	SG-3		1326	$\square$		X	$\square$	$\square$	X		$\square$		$\square$		x	x	x	x						Vac - 30"		
5	SG-4		1117	$\Box$		X	$\square$	Π	х						x	х	x	X						Vac·30"		
6	SG-5		1232			X		$\square$	X						x	x	x	x				Τ		Vac -30"		
7	SG-6 (Duplicate)					X	$\square$	$\square$	X		$\square$				x	x	x	X						Vac -30"		
X	Station Door Ambient Air		1230			X	$\Box$	R	X						х	x	х	x				$\Box$		Vac - 30'		
Ľ				$\Box$																		T				
				$\Box$																		$\Box$				
Sample	er's Name: Eriz Farrier					R	lelin	quis	hed I	3y / A	\ffilia	tion			Da	ite	Tir	me		A	ccept	ed By	/ Affi	liation	Date	Time
Sample	er's Company: BAI				h		<u> </u>		_	2					YM	<i>}//c</i>	14	30		D٨	elex	/	<u>An</u>	. ta	thopo	10:30
Shipme	ent Method: 650	Ship Date: 4//	<u>191/0</u>																	ľ						e ,
Shipme	ent Tracking No: 106 13659	7106A	3660																							ប
Speci	ial Instructions: Eight 6-Liter Sun	nma canisters to	be batch certifi	ied cor	ntami	inant (	free;	Leak	< chec	k gas	1,1-D	FA =	1,1-Dif	íluoròc	ethane	(CAS	<b>#</b> 75-3	37-6)								<u> </u>
	THIS LINE - LAB USE ONLY: Cust	ody Seals In Plac	ce: Yes / No	·	Temr	ρ Blar	nk: Yr	es / N	10 I	c l	ooler	Temp	on Re	ceipt:			_°F/C		Trip F	Blank:	Yes / N	NO I	M٤	S/MSD Sample Subr	nitted: Yes /	/ No

Page 16 of 18 1395

ACCOUNTINO 5100		4 PACKAGE INT
THE BAL		
55 The Cotting Long		
STE/	1-800-322-5555	DECLARED VALUE \$
200 P 5688	WWW.GSO.COM	
PHONE 774-2117-790/	5 DELIVERY SERVICE PRIORITY OVERNIGHT	
MEANY	BY 10:30 AM DELIVERY TIMES MAY BE LATER IN SOME AREAS	BY 8:00 AM CONSULT YOUR SERVICE GUIDE OR CALL GOLDEN STATE OVERNIGHT.
AL SCIENCE		
NUMBER 714-895-5494		
440 LINCOLN WAY		
DRESS STE/ ROOM -		
XARDEN GROVE		DRIVER # ROUTE #
R INTERNAL BILLING ERENCE WILL APPEAR OUR INVOICE	106193659	
TIONS 20F2	9 GSO TRACKING NUMBER	106193659
DATEL/19/10 SHIPPERSIGSO 9255 COMPANY DAT ADDRESS 875 LOTTING LN ADDRESS F75 LOTTING LN ADDRESS F7	GOLDEN STATE OVERNIGHT	SHIPPING AIR BILL
CCALINSCIENCE	BY 10:30 "DELIVERY TIMES MAY BE LATER IN SOME AR	
NAME PHONE 714-895-5494	6 RELEASE SIGNATURE	- COLL COLDEN STATE OVERNIGHT.
AP2240 LINCOLN WAY		E DELIVERY WITHOUT OBTAINING SIGNATURE CREDIT CARD NUMBER EXP. DATE
ADDRESS STE/		· · · · · · · · · · · · · · · · · · ·
CIGARDEN GROVE ZIP 92841		
YOUR INTERNAL BILLING	106193660	
METERIENCE WILL APPEAR ON YOUR INVOICE		
RUCTIONS 0+2	9 GSO TRACKING NUMBER	106193660

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Calscience ·	WORK ORDER #:	10-04	-735						
aboratories, Inc. SAMPLE F		RM	Box <u>/</u> o	f_~					
CLIENT: BROADBENT 4 ASSOCIATES		DATE:	04/20/	10					
TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)									
Temperature°C + 0.5 °C (CF)	=°C [	☐ Blank	Sample						
□ Sample(s) outside temperature criteria (PM/APM	contacted by:).								
□ Sample(s) outside temperature criteria but receive	ed on ice/chilled on same da	ay of samplir	ıg.						
$\Box$ Received at ambient temperature, placed on	ice for transport by Co	urier.							
Ambient Temperature: 🗗 Air 🛛 Filter 🖾 M	letals Only 🛛 PCBs (	Dnly	Initial:	<u>p</u> ∫					
CUSTODY SEALS INTACT:									
Box 🗆 No (Not Int	act)	□ N/A	Initial:	PS					
□ Sample □ □ No (Not In	tact) INot Present		Initial:	ps					
			NI- N	1/A					
Chain-Of-Custody (COC) document(s) received wi	th samples			¶/A □					
COC document(s) received complete		s and the second							
#1, 7	ed in based on sample labels	4120/10							
□ No analysis requested □ Not relinquished □ N	lo date/time relinquished								
Sampler's name indicated on COC.		7							
Sample container label(s) consistent with COC									
Sample container(s) intact and good condition									
Correct containers and volume for analyses reque	sted	, Z							
Analyses received within holding time		Ø							
Proper preservation noted on COC or sample cont	ainer								
□ Unpreserved vials received for Volatiles analysis									
Volatile analysis container(s) free of headspace				Ø					
Tedlar bag(s) free of condensation				Ø					
CONTAINER TYPE:									
Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sle	eve() □EnCores <sup>®</sup>	°⊡TerraCo	ores® □						
Water: DVOA DVOAh DVOAna <sub>2</sub> D125AGB	]125AGBh □125AGBp		]1AGBna₂ □1	AGB <b>s</b>					
□500AGB □500AGJ □500AGJs □250AGB	□250CGB □250CGBs	□1PB □	]500PB □500	PB <b>na</b>					
□250PB □250PBn, □125PB □125PBznna □1	00PJ □100PJna₂ □	0	<b>[</b> ]						
Air: □Tedlar <sup>®</sup> ⊠Summa <sup>®</sup> Other: □ T	rip Blank Lot#:	(	Checked by:	<u>}</u>					
Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottl Preservative: h: HCL n: HNO3 na <sub>2</sub> :Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> Na: NaOH p: H <sub>3</sub> PC	e <b>Z</b> : Ziploc/Resealable Bag <b>E</b> : A <b>s</b> : H <sub>2</sub> SO <sub>4</sub> <b>znna</b> : ZnAc <sub>2</sub> +NaOH <b>f</b> :	Envelope R Field-filtered	eviewed by: Scanned by:	YL PS					

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SOP T100\_090 (07/16/09)

Calscience .	WOF	RK ORDER #:	10-04	<b>1-</b> [][	395						
Laboratories, inc. S	AMPLE REC	EIPT FO	RM	Box _	<u>₹</u> of <u>₹</u>						
CLIENT: BROADBENT 4 ASSOC	IATE		DATE:	<u>04 /ə</u>	0/10						
TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)											
Temperature•°C	+ <b>0.5 °C</b> (CF) =	•°C	🗆 Blank	🗌 Sam	ple						
Sample(s) outside temperature	criteria (PM/APM contact	ed by:).									
□ Sample(s) outside temperature	criteria but received on ic	e/chilled on same c	lay of sampli	<b>19</b> ,							
□ Received at ambient temperature, placed on ice for transport by Courier.											
Ambient Temperature: Air	□ Filter □ Metals 0	Dnly 🗆 PCBs	Only	Initia	al: <u>_<i>PS</i></u>						
CUSTODY SEALS INTACT											
	□ No (Not Intact)	Not Present	□ N/A	Initi	al: <i>R</i>						
□ Sample □	□ No (Not Intact)	☑ Not Present		Initi	al: <i>B</i>						
SAMPLE CONDITION:			Yes	No	N/A						
Chain-Of-Custody (COC) docume	nt(s) received with sam	ples	🗹								
COC document(s) received comp	lete	•••••••••••••••••••••••••••••••••••••••	.Ø								
$\Box$ Collection date/time, matrix, and/or	# of containers logged in ba	sed on sample labels									
🗆 No analysis requested. 🛛 🛛 Not r	elinquished. 🛛 🛛 No date/t	ime relinquished.									
Sampler's name indicated on CO	D										
Sample container label(s) consiste	ent with COC		б								
Sample container(s) intact and go	od condition		Ρ⁄								
Correct containers and volume for	analyses requested		Ø								
Analyses received within holding t	time		$\square$								
Proper preservation noted on CO	C or sample container		. 🗆								
□ Unpreserved vials received for \	olatiles analysis										
Volatile analysis container(s) free	of headspace	· · · · · · · · · · · · · · · · · · ·	. 🗆		ď						
Tedlar bag(s) free of condensation	٦		. 🗆		Ø						
CONTAINER TYPE:											
Solid:	16ozCGJ □Sleeve(_	) □EnCores	<sup>®</sup> □TerraCo	ores® □_							
Water: □VOA □VOAh □VOAn	<b>a₂</b> □125AGB □125A0	GBh □125AGBp		]1AGB <b>na₂</b>	□1AGB <b>s</b>						
□500AGB □500AGJ □500AG	Js □250AGB □2500	GB □250CGBs	• □1PB □	]500PB □	500PB <b>na</b>						
□250PB □250PBn □125PB □	125PB <b>znna</b> □100PJ	□100PJ <b>na₂</b> □		C							
Air: □Tedlar <sup>®</sup> ⊠Summa <sup>®</sup> Oth	er: 🛛 Trip Bla	ink Lot#:		Checked by	y:						
Container: C: Clear A: Amber P: Plastic G: Preservative: h: HCL n: HNO3 na <sub>2</sub> :Na <sub>2</sub> S <sub>2</sub> O	: Glass J: Jar B: Bottle Z: Zipl <sub>3</sub> Na: NaOH p: H <sub>3</sub> PO <sub>4</sub> s: H <sub>2</sub> SO	oc/Resealable Bag E: D4 znna: ZnAc <sub>2</sub> +NaOH f	Envelope <b>R</b> f: Field-filtered	eviewed b Scanned b	y: <u>YL</u> y: <u>F</u>						

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SOP T100\_090 (07/16/09)

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#### APPENDIX C

SOIL VAPOR MONITORING WELL SAMPLING DATA PACKAGE NO.2 (Includes Field Notes, Laboratory Analytical Reports with Chain-of-Custody Documentation)

BROADBENT & ASSOCIATES, INC ENGINEERING, WATER RESOURCES & ENVIRONMENTA			<b>DAILY REPORT</b> Page of
Project: BP 203r	Project N	10.: 06.88.610	· · · · · · · · · · · · · · · · · · ·
Field Representative(s): EI Form	Day: 17	Mm Date:	3/14/10
Time Onsite: From: 09el To: 1545	_; From:	To:; From:	To:
<ul> <li>✓ Signed HASP </li> <li>✓ Safety Glasses</li> <li>✓ UST Emergency System Shut-off System</li> <li>✓ Proper Level of Barricading</li> </ul>	s <u> </u>	Steel Toe Boot Proper Gloves	sSafety Vest
Weather: 700		· · · · · · · · · · · · · · · · · · ·	· ·
Equipment In Use: Sorvice Inch			
Visitors: None			
TIME:	WORK DESCRIP	TION:	
OSSE Papert office tor.	Sungolach	Sinny ou l	· · · · · · · · · · · · · · · · · · ·
CGSE an Smaplecy		· · ·	•
0730 Pepert Surgeler	l to any	2	·
0100 av 2035			
0927 Set up on 56	4. Begin Lei	In check.	
Phise D-718,	AQIT	-30" Hs	
Sample D-702,	AJUT	-30 "19	- · · · · · · · · · · · · · · · · · · ·
(1933 Lend Check Proved	, kryih Pure	- -	· · · · · · · · · · · · · · · · · · ·
0939 Purge conplet	e, brsin 5	mpling	
Prisc can @ 26	' H6		
1011 \$-702@ S" Hs	, simplita s	toppod	
Begin setting	of Duplicat	E'Sompy (	inn.stc
<u>Onp D 737, A</u>	-132 -30"	·	
1016 Begin Leals Cherl	^		· · · · · · · · · · · · · · · · · · ·
1021 Lich chech par	seed, begin 1	ang c	<u></u>
1027 Pryse complete	1 begin 5m	ing live	••••
Purse con @ 21	"HP		
1123 Set up on St	- 3 1 besin	leak Chech	P
Signature:		-	

	BENT & AS	SOCIATES, I RCES & ENVIRONME	NC. INTAL	: :		DAILY I Page <u>2</u>	ef
Project: BP	2035	· · · · · · · · · · · · · · · · · · ·	Pro	ject No.: P	5-88-610	· · · ·	
Field Represen	itative(s): E	i from	Day	1: Frither	Date: <u>3/</u>	MIC	
Time Onsite: 1	From:	To:	; From:	To:	; From:	То:	
Signed UST E	HASP mergency S Level of Ba	Safety Gla ystem Shut-off rricading	sses Hard f Switches Located Other PPE (desc	Hat 1 1 ribe)	Steel Toe Boots Proper Gloves	Safet	y Vest.
Weather:			· · · · · · · · · · · · · · · · · · ·				
Equipment In	Use:						
	•						
Visitors:	• .		· · · · · · · · · · · · · · · · · · ·				
TIME: 131 130 130 120 120 120 120 120 120 120 12	Lech Purse D.58 D.58 D.58 D.58 D.58 Set n Purse D.70 Set n Loch D.70 Set n D.70 Set n D.70	chech <u>Compe</u> <u>y</u> A <u>D</u> S" Hs <u>D</u> ON <u>Chech</u> <u>complet</u> <u>A</u> 30 <u>Chech</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u> <u>complet</u>	WORK DESC 125501, beg to peg in 127, -30 5 G-5, b 2 1511 prssch, beg in 7 @ -30 , 5cm pl. hs 6 - 2, beg 2 25001, beg in to peg in 1 27, -30 1	CRIPTION: in proc Surpling THS Stoppe regin Hin begin pro- Sampling Hay Stoppe Sumpling Sumpling	SG-3 d h Chech FE - SG-5 - SG-2 - SG-2	۵ ۵ ۱۱ " <i>+۱۶</i>	
135021425	D33%	a si Alg	i Sump	ling stop	2-cl		
1418 1453 1500	Set u Lenh ( Pursc DI72	p un Checu Compheta Aller	SG-1 L Posser , ba beyin	sin pres	с. <u>0</u> 8" Ну SG-1		
Signature:	DDD	~1/5 a	tel Semali		<u></u>		
1535 1545	of (5: 30	= -10 6093	Charles and	·			







May 28, 2010

Tom Venus Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642

Subject: Calscience Work Order No.: Client Reference:

10-05-1335 BP 2035 Vapor Intrusion Assessment

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 5/18/2010 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Richard Viller .

Calscience Environmental Laboratories, Inc. Richard Villafania Project Manager

 CA-ELAP ID: 1230
 NELAP ID: 03220CA
 CSDLAC ID: 10109
 SCAQMD ID: 93LA0830

 A
 7440 Lincoln Way, Garden Grove, CA 92841-1427
 TEL:(714) 895-5494
 FAX: (714) 894-7501

# alscience nvironmental aboratories, Inc.

Date Received:

05/18/10

# N ACCORD

Broadbent & Associates, Inc. 1 С

1324 Mangrove Ave, Ste Chico, CA 95926-2642	212				Work Orde Preparation Method: Units:	er No: n:			£	10- ASTM	05-1335 N/A I D-1946 %v
Project: BP 2035 Vapor I	ntrusion	Assess	sment							Pag	ge 1 of 1
Client Sample Number			La	ıb Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date Ana	/Time lyzed	QC Batch ID
SG-1			10-05- <sup>-</sup>	1335-1-A	05/14/10 15:00	Air	GC 34	N/A	05/1 00	8/10 :00	100518L01
Parameter Methons	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	Parameter			Result	<u>RL</u>	<u>DF</u>	Qual
Carbon Dioxide	5.23	0.855 0.855	1.71 1.71		Oxygen + Argon			8.40	0.855	1.7	I
SG-2			10-05- <sup>-</sup>	1335-2-A	05/14/10 13:56	Air	GC 34	N/A	05/1 00	8/10 :00	100518L01
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	Parameter			<u>Result</u>	RL	DF	Qual
Methane Carbon Dioxide	ND 3 79	0.840 0.840	1.68 1.68		Oxygen + Argon			17.2	0.840	1.68	3
SG-3	0.10	0.040	10-05-	1335-3-A	05/14/10 11:36	Air	GC 34	N/A	05/1 00	8/10 :00	100518L01
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	DF	Qual
Methane Carbon Dioxide	ND 5.05	0.810 0.810	1.62 1.62		Oxygen + Argon			11.5	0.810	1.62	2
SG-4			10-05-	1335-4-A	05/14/10 09:39	Air	GC 34	N/A	05/1 00	8/10 :00	100518L01
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>
Methane Carbon Dioxide	ND ND	0.765 0.765	1.53 1.53		Oxygen + Argon			21.5	0.765	1.53	3
SG-5			10-05-	1335-5-A	05/14/10 12:40	Air	GC 34	N/A	05/1 00	8/10 :00	100518L01
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	Parameter			Result	RL	DF	<u>Qual</u>
Methane Carbon Dioxide	ND 5.45	0.840 0.840	1.68 1.68		Oxygen + Argon			2.78	0.840	1.68	3
SG-6 (Duplicate)			10-05- <sup>-</sup>	1335-6-A	05/14/10 00:00	Air	GC 34	N/A	05/1 00	8/10 :00	100518L01
Parameter	Result	<u>RL</u>	DF	<u>Qual</u>	Parameter			Result	<u>RL</u>	DF	Qual
Methane Carbon Dioxide	ND ND	0.775 0.775	1.55 1.55		Oxygen + Argon			21.5	0.775	1.58	5
Method Blank			099-03	-002-1,051	N/A	Air	GC 34	N/A	05/1 00	8/10 :00	100518L01
Parameter Methane	Result	<u>RL</u>	DF 1	Qual	Parameter			Result	<u>RL</u>	DF	Qual
Carbon Dioxide	ND	0.500	1		Chygen + Aigun				0.000	I	

RL - Reporting Limit , DF - Dilution Factor Qual - Qualifiers ,

hM

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

# alscience nvironmental aboratories, Inc.

Date Received:

05/18/10

# IN ACCORDA

Broadbent & Associates, Inc. 1324 Chico

1324 Mangrove Ave, Ste 2	12				Work Orde	er No:				10-	05-1335
Chico, CA 95926-2642					Preparatio	n:					N/A
					Method:					EP	A TO-15
					Units:						mg/m3
Project: BP 2035 Vapor In	trusion /	Assess	ment							Pag	ge 1 of 3
Client Sample Number			Lab	Sample	Date/Time	Matrix	Instrument	Date Prepared	Date/Ti Analvz	ime zed	QC Batch ID
SG-1			10-05-1	335-1-A	05/14/10 15:00	Air	GC/MS YY	N/A	05/21/ 07:09	/10 9	100520L01
Parameter	Result	RL	DF	Qual	Parameter			Result	RL	DF	Qual
Benzene	ND	0.0027	1 71		Xylenes (total)			ND	0.015	1 71	
Diisopropyl Ether (DIPE)	ND	0.0027	1.71		Tert-Amvl-Meth	vl Ether (T	AME)	ND	0.013	1.71	
Ethanol	ND	0.014	1.71		Tert-Butyl Alcoh	ol (TBA)	,)	ND	0.010	1.71	
Ethyl-t-Butyl Ether (ETBE)	ND	0.014	1.71		Toluene	- ( )		0.0044	0.0032	1.71	
Ethylbenzene	ND	0.0037	1.71		Isopropanol			ND	0.021	1.71	
Methyl-t-Butyl Ether (MTBE)	ND	0.012	1.71								
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qual</u>		Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u>Q</u>	ual
1,4-Bromofluorobenzene	92	57-129			1,2-Dichloroetha	ane-d4		95	47-137		
Toluene-d8	84	78-156									
SG-2			10-05-1	335-2-A	05/14/10 13:56	Air	GC/MS YY	N/A	05/21/ 07:5	'10 7	100520L01
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Benzene	ND	0.0027	1.68		Xylenes (total)			ND	0.015	1.68	3
Diisopropyl Ether (DIPE)	ND	0.014	1.68		Tert-Amyl-Methy	yl Ether (T	AME)	ND	0.014	1.68	5
Ethanol	ND	0.016	1.68		Tert-Butyl Alcoh	iol (TBA)		ND	0.010	1.68	3
Ethyl-t-Butyl Ether (ETBE)	ND	0.014	1.68		Toluene			ND	0.0032	1.68	3
Ethylbenzene	ND	0.0036	1.68		Isopropanol			0.14	0.021	1.68	3
Methyl-t-Butyl Ether (MTBE)	ND	0.012	1 60								
<b>^</b> <i>i</i>	DEC (all)	0	1.00						Original	~	
Surrogates:	<u>REC (%)</u>	<u>Control</u>	Qual		Surrogates:			<u>REC (%)</u>	Control	<u>Q</u>	ual
Surrogates:	<u>REC (%)</u> 97	Control Limits	Qual		Surrogates:	ana d4		<u>REC (%)</u> 93	Control Limits	<u>Q</u>	ual
Surrogates: 1,4-Bromofluorobenzene	<u>REC (%)</u> 97 90	<u>Control</u> <u>Limits</u> 57-129 78-156	Qual		Surrogates: 1,2-Dichloroetha	ane-d4		<u>REC (%)</u> 93	<u>Control</u> <u>Limits</u> 47-137	<u>Q</u>	ual
Surrogates: 1,4-Bromofluorobenzene Toluene-d8 SG-3	<u>REC (%)</u> 97 90	<u>Control</u> <u>Limits</u> 57-129 78-156	Qual	335-3-A	<u>Surrogates:</u> 1,2-Dichloroetha 05/14/10 11:36	ane-d4 Air	GC/MS YY	<u>REC (%)</u> 93 <b>N/A</b>	<u>Control</u> <u>Limits</u> 47-137 <b>05/21/</b> <b>08:4</b>	Q /10 6	ual 100520L01
Surrogates: 1,4-Bromofluorobenzene Toluene-d8 SG-3 Parameter	REC (%) 97 90 Result	Control Limits 57-129 78-156	<u>Qual</u> 10-05-1	<b>335-3-A</b> Qual	Surrogates: 1,2-Dichloroetha 05/14/10 11:36 Parameter	ane-d4 Air	GC/MS YY	REC (%) 93 N/A Result	Control Limits 47-137 05/21/ 08:40 RL	<u>Q</u> 110 6	ual 100520L01 Qual
Surrogates: 1,4-Bromofluorobenzene Toluene-d8 SG-3 Parameter Benzene	<u>REC (%)</u> 97 90 <u>Result</u> ND	<u>Control</u> <u>Limits</u> 57-129 78-156 <u>RL</u> 0.0026	<u>Qual</u> 10-05-1: <u>DF</u> 1.62	<b>335-3-A</b> Qual	Surrogates: 1,2-Dichloroetha 05/14/10 11:36 Parameter Xylenes (total)	ane-d4 Air	GC/MS YY	REC (%) 93 N/A Result ND	Control Limits 47-137 05/21/ 08:44 RL 0.014	<u>Q</u> 10 6 <u>DF</u>	<u>ual</u> 100520L01
Surrogates: 1,4-Bromofluorobenzene Toluene-d8 SG-3 Parameter Benzene Diisopropyl Ether (DIPE)	REC (%) 97 90 <u>Result</u> ND ND	Control Limits 57-129 78-156 <u>RL</u> 0.0026 0.014	<u>Qual</u> 10-05-1: <u>DF</u> 1.62 1.62	335-3-A Qual	Surrogates: 1,2-Dichloroetha 05/14/10 11:36 Parameter Xylenes (total) Tert-Amyl-Methy	Air Air	GC/MS YY	REC (%) 93 N/A Result ND ND	Control Limits 47-137 05/21/ 08:40 RL 0.014 0.014	Q (10 6 DF 1.62 1.62	<u>Qual</u>
Surrogates: 1,4-Bromofluorobenzene Toluene-d8 SG-3 Parameter Benzene Diisopropyl Ether (DIPE) Ethanol	REC (%) 97 90 <u>Result</u> ND ND ND	Control Limits 57-129 78-156 <u>RL</u> 0.0026 0.014 0.015	DF 1.62 1.62 1.62	335-3-A Qual	Surrogates: 1,2-Dichloroetha 05/14/10 11:36 Parameter Xylenes (total) Tert-Amyl-Methy Tert-Butyl Alcoh	Air Air yl Ether (T	GC/MS YY	REC (%) 93 N/A N/A Result ND ND ND	Control Limits 47-137 05/21/ 08:40 RL 0.014 0.014 0.0098	Q 10 6 DE 1.62 1.62 1.62	<u>Qual</u>
Surrogates: 1,4-Bromofluorobenzene Toluene-d8 SG-3 Parameter Benzene Diisopropyl Ether (DIPE) Ethanol Ethyl-t-Butyl Ether (ETBE)	REC (%) 97 90 <u>Result</u> ND ND ND ND	Control Limits 57-129 78-156 RL 0.0026 0.014 0.015 0.014	<u>Qual</u> 10-05-1: <u>DF</u> 1.62 1.62 1.62 1.62	335-3-A Qual	Surrogates: 1,2-Dichloroetha 05/14/10 11:36 Parameter Xylenes (total) Tert-Amyl-Methy Tert-Butyl Alcoh Toluene	Air Air yl Ether (T iol (TBA)	GC/MS YY	REC (%) 93 <b>N/A</b> <u>Result</u> ND ND ND 0.0064	Control Limits 47-137 05/21/ 08:40 RL 0.014 0.014 0.0098 0.0031	Q 10 6 1.62 1.62 1.62 1.62	<u>Qual</u>
Surrogates: 1,4-Bromofluorobenzene Toluene-d8 SG-3 Parameter Benzene Diisopropyl Ether (DIPE) Ethanol Ethyl-t-Butyl Ether (ETBE) Ethylbenzene	REC (%) 97 90 <u>Result</u> ND ND ND ND ND	Control Limits 57-129 78-156 .00026 0.014 0.015 0.014 0.0035	<u>Qual</u> 10-05-1: <u>DF</u> 1.62 1.62 1.62 1.62 1.62	335-3-A Qual	Surrogates: 1,2-Dichloroetha 05/14/10 11:36 Parameter Xylenes (total) Tert-Amyl-Methy Tert-Butyl Alcoh Toluene Isopropanol	Air Air yl Ether (T iol (TBA)	<b>GC/MS YY</b> AME)	REC (%) 93 <b>N/A</b> <u>Result</u> ND ND ND 0.0064 ND	Control Limits 47-137 05/21/ 08:44 0.014 0.014 0.0098 0.0031 0.020	Q 10 6 1.62 1.62 1.62 1.62 1.62 1.62	<u>Qual</u>
Surrogates: 1,4-Bromofluorobenzene Toluene-d8 SG-3 Parameter Benzene Diisopropyl Ether (DIPE) Ethanol Ethyl-t-Butyl Ether (ETBE) Ethylbenzene Methyl-t-Butyl Ether (MTBE)	REC (%) 97 90 <u>Result</u> ND ND ND ND ND ND ND	Control Limits 57-129 78-156 .0026 0.014 0.015 0.014 0.0035 0.012	Qual           10-05-1:           DF           1.62           1.62           1.62           1.62           1.62           1.62           1.62	335-3-A Qual	Surrogates: 1,2-Dichloroetha 05/14/10 11:36 Parameter Xylenes (total) Tert-Amyl-Methy Tert-Butyl Alcoh Toluene Isopropanol	Air Air yl Ether (T iol (TBA)	<b>GC/MS YY</b> AME)	REC (%)           93           N/A           Result           ND           ND	Control Limits 47-137 05/21/ 08:44 0.014 0.014 0.0098 0.0031 0.020	Q 10 6 1.62 1.62 1.62 1.62 1.62	<u>Qual</u>
Surrogates: 1,4-Bromofluorobenzene Toluene-d8 SG-3 Parameter Benzene Diisopropyl Ether (DIPE) Ethanol Ethyl-t-Butyl Ether (ETBE) Ethylbenzene Methyl-t-Butyl Ether (MTBE) Surrogates:	REC (%) 97 90 Result ND ND ND ND ND ND ND ND REC (%)	Control Limits 57-129 78-156 0.0026 0.014 0.015 0.014 0.0035 0.012 Control Limits	Qual           10-05-1:           DF           1.62           1.62           1.62           1.62           1.62           1.62           1.62           1.62           0.02	335-3-A Qual	Surrogates: 1,2-Dichloroetha 05/14/10 11:36 Parameter Xylenes (total) Tert-Amyl-Methy Tert-Butyl Alcoh Toluene Isopropanol Surrogates:	Air Air yl Ether (T iol (TBA)	GC/MS YY	REC (%)           93           N/A           Result           ND           ND           0.0064           ND	Control Limits 47-137 05/21/ 08:44 0.014 0.014 0.0098 0.0031 0.020 Control Limits	Q /10 6 DF 1.62 1.62 1.62 1.62 1.62 1.62 0 0	<u>Qual</u>
Surrogates: 1,4-Bromofluorobenzene Toluene-d8 SG-3 Parameter Benzene Diisopropyl Ether (DIPE) Ethanol Ethyl-t-Butyl Ether (ETBE) Ethylbenzene Methyl-t-Butyl Ether (MTBE) Surrogates: 1,4-Bromofluorobenzene	REC (%) 97 90	Control Limits 57-129 78-156 0.0026 0.014 0.015 0.014 0.0035 0.012 Control Limits 57-129	Qual           10-05-1:           DF           1.62           1.62           1.62           1.62           1.62           1.62           0.62           0.62           0.62           0.62           0.62	335-3-A Qual	Surrogates: 1,2-Dichloroetha 05/14/10 11:36 Parameter Xylenes (total) Tert-Amyl-Methy Tert-Butyl Alcoh Toluene Isopropanol Surrogates: 1,2-Dichloroetha	Air Air yl Ether (T iol (TBA)	GC/MS YY	REC (%)           93           N/A           Result           ND           90	Control Limits 47-137 05/21/ 08:44 0.014 0.014 0.0098 0.0031 0.020 Control Limits 47-137	Q 10 6 1.62 1.62 1.62 1.62 1.62 0 0	<u>Qual</u>

RL - Reporting Limit , DF - Dilution Factor

Qual - Qualifiers ,

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# alscience nvironmental aboratories, Inc.

Date Received:



05/18/10

Broadbent & Associates, Inc. 1324 N ^ 040 Chico

1324 Mangrove Ave, Ste	212				Work Orde	er No:				10-	05-1335
Chico, CA 95926-2642					Preparatio	n:					N/A
,					Method <sup>.</sup>					FΡ	A TO-15
					Units <sup>.</sup>						ma/m3
Project: BP 2035 Vapor	Intrusion	۵۹۹۹۹	ment		Crintor					Pa	ne 2 of 3
		100000		- ·				Data	Data /I		90 2 01 0
Client Sample Number			Lai N	b Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Analy	ime zed	QC Batch ID
SG-4			10-05-1	335-4-A	05/14/10 09:39	Air	GC/MS YY	N/A	05/21 09:3	/10 51	100520L01
Parameter	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	DF	Qual
Benzene	ND	0.0098	6.12		Xylenes (total)			ND	0.053	6.12	2
Diisopropyl Ether (DIPE)	ND	0.051	6.12		Tert-Amyl-Meth	yl Ether (T	AME)	ND	0.051	6.12	2
Ethanol	ND	0.058	6.12		Tert-Butyl Alcoh	nol (TBA)		ND	0.037	6.12	2
Ethyl-t-Butyl Ether (ETBE)	ND	0.051	6.12		Toluene			0.016	0.012	6.12	2
Ethylbenzene	ND	0.013	6.12		Isopropanol			91	7.5	612	2
Methyl-t-Butyl Ether (MTBE)	ND	0.044	6.12		•				<b>•</b> • •		、 .
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qua</u>	<u>I</u>	Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u>(</u>	<u>lual</u>
1,4-Bromofluorobenzene	94	57-129			1,2-Dichloroetha	ane-d4		97	47-137		
Toluene-d8	95	78-156									
SG-5			10-05-1	335-5-A	05/14/10 12:40	Air	GC/MS YY	N/A	05/21 10:2	/10 20	100520L01
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Benzene	ND	0.0027	1.68		Xylenes (total)			ND	0.015	1.68	8
Diisopropyl Ether (DIPE)	ND	0.014	1.68		Tert-Amyl-Meth	yl Ether (T	AME)	ND	0.014	1.68	8
Ethanol	ND	0.016	1.68		Tert-Butyl Alcoh	nol (TBA)		ND	0.010	1.68	8
Ethyl-t-Butyl Ether (ETBE)	ND	0.014	1.68		Toluene			ND	0.0032	1.68	8
Ethylbenzene	ND	0.0036	1.68		Isopropanol			18	8.3	672	
Methyl-t-Butyl Ether (MIBE)	ND	0.012	1.68		<b>a</b> ,				0	~	N
Surrogates:	<u>REC (%)</u>	Limits	Qua	<u>I</u>	Surrogates:			<u>REC (%)</u>	<u>Limits</u>	<u>c</u>	<u>zuai</u>
1,4-Bromofluorobenzene	95	57-129			1,2-Dichloroetha	ane-d4		96	47-137		
Toluene-d8	83	78-156									
SG-6 (Duplicate)			10-05-1	335-6-A	05/14/10 00:00	Air	GC/MS YY	N/A	05/21 11:0	/10  6	100520L01
Parameter	Result	RL	DF	Qual	Parameter			Result	RL	DF	Qual
Benzene	ND	0.020	12.4		Xylenes (total)			ND	0.11	12	4
Diisopropyl Ether (DIPE)	ND	0.10	12.4		Tert-Amvl-Meth	vl Ether (T	AME)	ND	0.10	12.4	4
Ethanol	ND	0.12	12.4		Tert-Butyl Alcoh	nol (TBA)	,	ND	0.075	12.4	4
Ethyl-t-Butyl Ether (ETBE)	ND	0.10	12.4		Toluene	. /		ND	0.023	12.4	4
Ethylbenzene	ND	0.027	12.4		Isopropanol			130	7.6	620	)
Methyl-t-Butyl Ether (MTBE)	ND	0.089	12.4								
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	Qua	<u>l</u>	Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u>C</u>	Qual
1.4-Bromofluorobenzene	07										
	97	57-129			1,2-Dichloroetha	ane-d4		96	47-137		
Toluene-d8	97 93	57-129 78-156			1,2-Dichloroetha	ane-d4		96	47-137		

RL - Reporting Limit , DF - Dilution Factor

Qual - Qualifiers ,

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# Calscience nvironmental aboratories, Inc.

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Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642 Date Received:05/18/10Work Order No:10-05-1335Preparation:N/AMethod:EPA TO-15Units:mg/m3Page 3 of 3

#### Project: BP 2035 Vapor Intrusion Assessment

Client Sample Number			La	ab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/ Analy	Time /zed	QC Batch ID
Method Blank			095-01	-021-8,560	N/A	Air	GC/MS YY	N/A	05/20 20:4	0/10 48	100520L01
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual	Parameter			<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual
Benzene	ND	0.0016	1		Xylenes (total)			ND	0.0087	1	
Diisopropyl Ether (DIPE)	ND	0.0084	1		Tert-Amyl-Meth	yl Ether (1	TAME)	ND	0.0084	1	
Ethanol	ND	0.0094	1		Tert-Butyl Alcol	nol (TBA)	,	ND	0.0061	1	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0084	1		Toluene			ND	0.0019	1	
Ethylbenzene	ND	0.0022	1		Isopropanol			ND	0.012	1	
Methyl-t-Butyl Ether (MTBE)	ND	0.0072	1								
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	Qua	al	Surrogates:			<u>REC (%)</u>	Control Limits	<u>C</u>	Qual
1,4-Bromofluorobenzene	98	57-129			1,2-Dichloroeth	ane-d4		95	47-137		
Toluene-d8	99	78-156									
Method Blank			095-01	-021-8,562	N/A	Air	GC/MS ZZ	N/A	05/21 12:	1/10 55	100521L01
Parameter	Result	RL	DF	Qual	Parameter			Result	RL	DF	Qual
Benzene	ND	0.0016	1		Xvlenes (total)			ND	0.0087	1	
Diisopropyl Ether (DIPE)	ND	0.0084	1		Tert-Amyl-Meth	vl Ether (1	TAME)	ND	0.0084	1	
Ethanol	ND	0.0094	1		Tert-Butyl Alcol	nol (TBA)	,	ND	0.0061	1	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0084	1		Toluene	. ,		ND	0.0019	1	
Ethylbenzene	ND	0.0022	1		Isopropanol			ND	0.012	1	
Methyl-t-Butyl Ether (MTBE)	ND	0.0072	1								
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	Qua	al	Surrogates:			<u>REC (%)</u>	<u>Control</u> Limits	<u>C</u>	Qual
1,4-Bromofluorobenzene	104	57-129			1,2-Dichloroeth	ane-d4		107	47-137		
Toluene-d8	98	78-156									

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Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642

05/18/10
10-05-1335
N/A
EPA TO-3M

#### Project: BP 2035 Vapor Intrusion Assessment

Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SG-1		10-05-1335-1-A	05/14/10 15:00	Air	GC 38	N/A	05/18/10 15:16	100518L02
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	65	1.71		mg/m3			
SG-2		10-05-1335-2-A	05/14/10 13:56	Air	GC 38	N/A	05/18/10 15:56	100518L02
Parameter	<u>Result</u>	<u>RL</u>	DF	Qual	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	64	1.68		mg/m3			
SG-3		10-05-1335-3-A	05/14/10 11:36	Air	GC 38	N/A	05/18/10 16:32	100518L02
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	62	1.62		mg/m3			
SG-4		10-05-1335-4-A	05/14/10 09:39	Air	GC 38	N/A	05/18/10 17:07	100518L02
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	59	1.53		mg/m3			
SG-5		10-05-1335-5-A	05/14/10 12:40	Air	GC 38	N/A	05/18/10 17:45	100518L02
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	64	1.68		mg/m3			
SG-6 (Duplicate)		10-05-1335-6-A	05/14/10 00:00	Air	GC 38	N/A	05/18/10 18:20	100518L02
Parameter	Result	<u>RL</u>	DF	Qual	<u>Units</u>			
Gasoline Range Organics (C6-C12)	60	59	1.55		mg/m3			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642 Date Received:05/18/10Work Order No:10-05-1335Preparation:N/AMethod:EPA TO-3M

#### Project: BP 2035 Vapor Intrusion Assessment

Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank		099-12-685-284	N/A	Air	GC 38	N/A	05/18/10 08:43	100518L02
Parameter	<u>Result</u>	<u>RL</u>	DF	Qual	<u>Units</u>			
Gasoline Range Organics (C6-C12)	ND	38	1		mg/m3			







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05/18/10

N/A

Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642

Date Received: Work Order No: 10-05-1335 Preparation: Method: EPA TO-3M

#### Project: BP 2035 Vapor Intrusion Assessment

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
SG-6 (Duplicate)	Air	GC 38	N/A	05/18/10	100518D02
Parameter	Sample Conc	DUP Conc	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
Gasoline Range Organics (C6-C12)	60	60	1	0-20	

RPD - Relative Percent Difference, CL - Control Limit

N/A

N/A





Broadbent & Associates, Inc. 1324 Mangrove Ave, Ste 212 Chico, CA 95926-2642

Date Received: Work Order No: 10-05-1335 Preparation: Method: ASTM D-1946

#### Project: BP 2035 Vapor Intrusion Assessment

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Da d Ana	ate lyzed	LCS/LCSD Batc Number	h
099-03-002-1,051	Air	GC 34	N/A	05/1	8/10	100518L01	
Parameter	LCS %	REC LCSE	0 %REC	%REC CL	RPD	RPD CL	<u>Qualifiers</u>
Carbon Dioxide	100	9	9	80-120	1	0-30	
Oxygen + Argon	103	10	03	80-120	0	0-30	
Nitrogen	105	10	)5	80-120	0	0-30	

RPD - Relative Percent Difference, CL - Control Limit



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Broadbent & Associates, Inc.	Date Received:	N/A
1324 Mangrove Ave, Ste 212	Work Order No:	10-05-1335
Chico, CA 95926-2642	Preparation:	N/A
	Method:	EPA TO-15

#### Project: BP 2035 Vapor Intrusion Assessment

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Da Analy	te /zed	LCS/LCSD E Number	Batch
095-01-021-8,560	Air	GC/MS YY	N/A	05/20/	10	100520L0	)1
Parameter	LCS %REC	LCSD %REC	<u>%REC CL</u>	ME CL	<u>RPD</u>	RPD CL	<b>Qualifiers</b>
Benzene	84	88	60-156	44-172	4	0-40	
Carbon Tetrachloride	82	84	64-154	49-169	3	0-32	
1,2-Dibromoethane	85	86	54-144	39-159	1	0-36	
1,2-Dichlorobenzene	98	99	34-160	13-181	1	0-47	
1,2-Dichloroethane	81	84	69-153	55-167	4	0-30	
1,2-Dichloropropane	85	87	67-157	52-172	3	0-35	
1,4-Dichlorobenzene	97	98	36-156	16-176	0	0-47	
c-1,3-Dichloropropene	93	96	61-157	45-173	3	0-35	
Ethylbenzene	93	94	52-154	35-171	1	0-38	
o-Xylene	93	95	52-148	36-164	1	0-38	
p/m-Xylene	92	93	42-156	23-175	2	0-41	
Tetrachloroethene	84	86	56-152	40-168	2	0-40	
Toluene	87	88	56-146	41-161	1	0-43	
Trichloroethene	86	88	63-159	47-175	3	0-34	
1,1,2-Trichloroethane	86	88	65-149	51-163	3	0-37	
Vinyl Chloride	87	87	45-177	23-199	0	0-36	

Total number of LCS compounds : 16

Total number of ME compounds : 0

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

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RPD - Relative Percent Difference, CL - Control Limit

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Broadbent & Associates, Inc.	Date Received:	N/A
1324 Mangrove Ave, Ste 212	Work Order No:	10-05-1335
Chico, CA 95926-2642	Preparation:	N/A
	Method:	EPA TO-15

#### Project: BP 2035 Vapor Intrusion Assessment

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Da Analy	ite ∕zed	LCS/LCSD Batch Number			
095-01-021-8,562	Air	GC/MS ZZ	N/A	05/21/	'10	100521L0	)1		
Parameter	LCS %REC	LCSD %REC	<u>%REC CL</u>	ME CL	<u>RPD</u>	RPD CL	<u>Qualifiers</u>		
Benzene	93	89	60-156	44-172	4	0-40			
Carbon Tetrachloride	91	89	64-154	49-169	2	0-32			
1,2-Dibromoethane	98	90	54-144	39-159	9	0-36			
1,2-Dichlorobenzene	102	93	34-160	13-181	9	0-47			
1,2-Dichloroethane	97	95	69-153	55-167	1	0-30			
1,2-Dichloropropane	96	92	67-157	52-172	4	0-35			
1,4-Dichlorobenzene	103	94	36-156	16-176	9	0-47			
c-1,3-Dichloropropene	99	93	61-157	45-173	6	0-35			
Ethylbenzene	100	90	52-154	35-171	11	0-38			
o-Xylene	103	92	52-148	36-164	11	0-38			
p/m-Xylene	104	94	42-156	23-175	10	0-41			
Tetrachloroethene	98	90	56-152	40-168	9	0-40			
Toluene	99	90	56-146	41-161	10	0-43			
Trichloroethene	99	94	63-159	47-175	5	0-34			
1,1,2-Trichloroethane	98	94	65-149	51-163	4	0-37			
Vinyl Chloride	107	113	45-177	23-199	6	0-36			

Total number of LCS compounds : 16

Total number of ME compounds : 0

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

nM

RPD - Relative Percent Difference, CL - Control Limit

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX: (714) 894-7501



AMM



Work Order Number: 10-05-1335

<u>Qualifier</u> AX	<u>Definition</u> Sample too dilute to quantify surrogate.
BA	Relative percent difference out of control.
BA,AY	BA = Relative percent difference out of control. AY = Matrix interference suspected.
BB	Sample > 4x spike concentration.
BF	Reporting limits raised due to high hydrocarbon background.
BH	Reporting limits raised due to high level of non-target analytes.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
BY	Sample received at improper temperature.
BZ	Sample preserved improperly.
CL	Initial analysis within holding time but required dilution.
CQ	Analyte concentration greater than 10 times the blank concentration.
CU	Surrogate concentration diluted to not detectable during analysis.
DF	Reporting limits elevated due to matrix interferences.
DU	Insufficient sample quantity for matrix spike/dup matrix spike.
ET	Sample was extracted past end of recommended max. holding time.
EY	Result exceeds normal dynamic range; reported as a min est.
GR	Internal standard recovery is outside method recovery limit.
IB	CCV recovery abovelimit; analyte not detected.
IH	Calibrtn. verif. recov. below method CL for this analyte.
IJ	Calibrtn. verif. recov. above method CL for this analyte.
J,DX	J=EPA Flag -Estimated value; DX= Value < lowest standard (MQL), but > than MDL.
LA	Confirmatory analysis was past holding time.
LG,AY	LG= Surrogate recovery below the acceptance limit. AY= Matrix interference suspected.
LH,AY	LH= Surrogate recovery above the acceptance limit. AY= Matrix interference suspected.
LM,AY	LM= MS and/or MSD above acceptance limits. See Blank Spike (LCS). AY= Matrix interference suspected.
LN,AY	LN= MS and/or MSD below acceptance limits. See Blank Spike (LCS). AY= Matrix interference suspected.
LQ	LCS recovery above method control limits.
LR	LCS recovery below method control limits.

<u>Qualifier</u> LW	<u>Definition</u> Quantitation of unknown hydrocarbon(s) in sample based on gasoline.
LX	Quantitation of unknown hydrocarbon(s) in sample based on diesel.
MB	Analyte present in the method blank.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
PC	Sample taken from VOA vial with air bubble > 6mm diameter.
PI	Primary and confirm results varied by $>$ than 40% RPD.
RB	RPD exceeded method control limit; % recoveries within limits.
SG	A silica gel cleanup procedure was performed.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.

Mulum. 7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

#### Laboratory Management Program LaMP Chain of Custody Record

BP/ARC Project Name: BP 2035 Vapor Intrusion Assessment

Atlantic

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1333

Req Due Date (mm/dd/yy):

No<u>X</u>

Duch	TAT	Vae	
RUSH		Tes	

A BP affiliated company	BP/ARC Fa	cility No:										2035	•	Lab	Worl	k Ord	ler N	umber	: _							
Lab Name: Calscience			BP/	ARC	Facility	y Add	lress:	:	1001	San	Pablo	Avenu	le					Consu	ltant/C	Contra	actor:		Broa	dbent & Associates	, Inc.	
Lab Address: 7440 Lincoln Way			City	City, State, ZIP Code: Albany, CA						Consultant/Contractor Project No: 06-88-610-5-822																
Lab PM: Richard Villafania			Lea	d Re	gulator	ry Age	ency:		ACE	н								Addres	ss: 1	324	Mang	rove	Ave. \$	Ste. 212, Chico, CA	95926	
Lab Phone: 714-895-5494			Cal	ifornia	a Globa	al ID I	No.:		T060	0100	081							Consu	iltant/C	Contra	actor	PM:	Tom	Venus		
Lab Shipping Accnt:		9225	5 Enf	os Pr	oposal	No:			000P	9-000	6							Phone	: 5	530-5	66-14	100				
Lab Bottle Order No:			Acc	ounti	ng Moo	de:		Pro	vision	X	00	C-BU		00	C-RM			Email	EDD T	ſo:	tvenu	ıs@b	roadb	entinc.com		
Other info:			Sta	ge:	Opera	ate (5	5)	Ac	tivity:	Fiel	d Ch	aract	eriza	tion	(1)			Invoice	e To:		BP	/ARC	; <u>x</u>	Contractor	·	
BP/ARC EBM: Chuck Carmel				Ma	atrix		No	. Coi	ntain	ers /	Pres	ervat	ive			F	Requ	ested	Anal	yses	\$			Report Ty	pe & QC L	.evel
EBM Phone:							s							-3	0-15		1946							Sta	indard X	
EBM Email:	_						ainer							by TC	oy TC	0-15	Ň							Full Data Pa	ckage	
Lab No. No.	Date	Time	Soil / Solid	Water / Liquid	Air / Vapor		Total Number of Con	Unpreserved	H₂SO₄	HNO <sub>3</sub>	HCI	Methanol		TPH-GRO (c6-c12)	BTEX, OXYS, EtOH	Isopropanol by 1	O2, CO2, CH4 by AS							Co Note: If sample not o Sample" in commen and initial any prepri	<b>nments</b> collected, indic ts and single-s nted sample c	ate "No strike out lescription.
Purge Canister	5/14/10	-			x		1	х																HOLD		
<b>2</b> SG-1		1500			x		1	x						х	х	х	x							report TO-3/TO-18	i conc. in mg	g/m3
3 SG-2		1356			x		1	х						х	х	x	х							report TO-3/TO-15	i conc. in mg	j/m3
🖌 SG-3		1136			x		1	х						х	х	х	х							report TO-3/TO-15	5 conc. in mg	j/m3
F SG-4		0939			x		1	х						х	х	х	х							report TO-3/TO-18	i conc. in mo	/m3
SG-5		1240			x		1	x						х	х	х	х							report TO-3/TO-15	conc. in mg	/m3
SG-6 (Duplicate)	4	<b>↓</b> ~	<u> </u>		×		1	х			÷ -			х	х	х	х						$\vdash$	report TO-3/TO-15	conc. in mg	J/m3
					$\left  \right $	+						×. · · ·			<u>`</u>				+	_			<u> </u>			
· · · · · · · · · · · · · · · · · · ·			$\vdash$			+														_			┢			
Sampler's Name: Eri'r Frrw	J	I	┢	L	 R€	elinq	uish	ned E	By / A	ffilia	L tion	!		Da	ate	Tir	ne			Acce	pteo	d By	/ Affi	liation	Date	Time
Sampler's Company: BAT				4	n	<i>j</i>	ح		_		_		-	<b>R</b> 5//	7/16	iza	Ø		121	ec	n/	h	-	la la	5/18/10	10:30
Shipment Method: 63e/	Ship Date:	////0													_				Τ		/					e 1
Shipment Tracking No: 106193656	1064706	91 650																								4 0
Special Instructions: -Eight 6-Liter Sum	ma canisters to	be batch certifie	ed co	ntam	inant fr	ree; L	Leak	checl	k com	pound	l Isopi	ropano	ol (rubl	bing a	lcohol	).										16
THIS LINE - LAB USE ONLY. Custo	dy Seals In Pla	ce: Yes / No		Temp	Blank	k: Yes	s / No		C	ooler '	Temp	on Re	ceipt:			_°F/C		Trip	Blank	Yes	/ No		M	S/MSD Sample Sub	mitted: Yes	'No

(1335-

DATE S/17/10 COMPANY BAL		GOLDER STRTE OVERDIGET	A BILL       MATION       DZ)       A D
ADDRESS 673 Cotting ADDRESS OCRY 14 p. 11 p.	Ince STE/ ROOM ZIE SCOM	1-800-322-5555 www.gso.com	E \$
M SENDERS CILL FALL	PHONE 775-247-7901	DELIVERY       PRIORITY       EARLY         OVERNIGHT       PRIORITY       PRIORITY         BY 10:30 AM       BY 8:00 AM         'DELIVERY TIMES MAY BE LATER IN SOME AREAS + CONSULT YOUR SERVICE GUIDE OR         RELEASE	CALL GOLDEN STATE OVERNIG
ADDRESS 7440 LINCOLN WAY	PHONE NUMBER	SIGNATURE SIGN TO AUTHORIZE DELIVERY WITHOUT OBTAINING SIGNAT	
CITY GARDEN GROVE	ROOM ZIP CODE <u>92841</u>	8       PICK UP INFORMATION         106470691       PEEL OFF HERE         106470691	ROUTE #
PECIAL NSTRUCTIONS			

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				Page	e 16 of 16
Environmental	WOR	K ORDER #:	10-05	5-13	35
SAMPL	E REC	EIPT FOR	RM c	ooler _ <i>0</i>	
CLIENT: BROADBENT AND ASSOCIAT	ES		DATE:	05 / 18	/ 10
TEMPERATURE: Thermometer ID: SC1 (C	riteria: 0.0 °C	- 6.0 °C, not frozer	ו)		
Temperature•°C + 0.5 °C	(CF) =	°C [	🗌 Blank	🗌 Samp	le
Sample(s) outside temperature criteria (PN)	//APM contacte	ed by:).			
Sample(s) outside temperature criteria but	received on ice	/chilled on same d	ay of sampli	ng.	
Received at ambient temperature, place	ed on ice for	transport by Co	urier.		<i>.</i>
Ambient Temperature: 🗹 Air 🛛 🗆 Filter	□ Metals C	only 🛛 PCBs (	Only	Initial	1: <u></u>
	· · · · · · · · · · · · · · · · · · ·				
CUSTODY SEALS INTACT:					
	(Not Intact)	Not Present	⊔ N/A	Initia	1: <u> </u>
	(Not Intact)	Not Present	. <u>i</u>	Initia	1: <u></u>
SAMPLE CONDITION:			Yes	No	N/A
Chain-Of-Custody (COC) document(s) rece	ived with sam	ples	. 🖌		
COC document(s) received complete			. 🗹		
□ Collection date/time, matrix, and/or # of contain	ners logged in ba	sed on sample labels.			
□ No analysis requested. □ Not relinquished.	□ No date/ti	me relinquished.			
Sampler's name indicated on COC			d		
Sample container label(s) consistent with C	oc		Ø		
Sample container(s) intact and good conditi	on				
Proper containers and sufficient volume for	analyses requ	ested			
Analyses received within holding time					
pH / Residual Chlorine / Dissolved Sulfide r	eceived withir	24 hours			Ø
Proper preservation noted on COC or samp	le container				
$\Box$ Unpreserved vials received for Volatiles an	alysis				
Volatile analysis container(s) free of headsp	ace		. 🗆		
Tedlar bag(s) free of condensation			. 🗆		Ø
Solid: □4ozCGJ □8ozCGJ □16ozCGJ	□Sleeve (_	) □EnCore	s® ⊡Terra	Cores <sup>®</sup> □_	
Water: DVOA DVOAh DVOAna <sub>2</sub> D125/	AGB 🗆 125AC	Bh □125AGBp	□1AGB	⊒1AGB <b>na₂</b>	□1AGB <b>s</b>
□500AGB □500AGJ □500AGJs □250	AGB □2500	GB □250CGBs	□1PB	□500PB □\$	500PB <b>na</b>
□250PB □250PBn □125PB □125PB <b>zn</b>	<b>na</b> □100PJ	⊒100PJ <b>na₂</b> □		□	
Air: □Tedlar <sup>®</sup> ǾSumma <sup>®</sup> Other: □	Trip Bla	nk Lot#:	Labeled/	Checked by:	ļ.
Container: C: Clear A: Amber P: Plastic G: Glass J: Jan Preservative: h: HCL n: HNO <sub>3</sub> na <sub>2</sub> :Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> na: NaOH	<b>B</b> : Bottle <b>Z:</b> Zipl <b>p:</b> H <sub>3</sub> PO₄ <b>s:</b> H <sub>2</sub> S(	oc/Resealable Bag E: 0₄ znna: ZnAc₂+NaOH f	Envelope <b>I</b> : Field-filtered	Reviewed by Scanned by	: <u>675</u>

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SOP T100\_090 (05/10/10)

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APPENDIX D

GEOTRACKER UPLOAD CONFIRMATION RECEIPTS

# GEOTRACKER ESI

UPLOADING A EDF FILE

### **SUCCESS**

Processing is complete. No errors were found! Your file has been successfully submitted!

Submittal Type:	EDF - Soil and Water Investigation Report
Submittal Title:	Soil Vapor/Soil Gas 4-16-2010
Facility Global ID:	T0600100081
Facility Name:	ARCO #02035
File Name:	10041395_s1.zip
Organization Name:	Broadbent & Associates, Inc.
<u>Username:</u>	BROADBENT-C
IP Address:	67.118.40.90
Submittal Date/Time:	6/18/2010 12:56:25 PM
Confirmation Number:	1963036954

VIEW QC REPORT

**VIEW DETECTIONS REPORT** 

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# GEOTRACKER ESI

UPLOADING A EDF FILE

### **SUCCESS**

Processing is complete. No errors were found! Your file has been successfully submitted!

Submittal Type: **EDF - Soil and Water Investigation Report** Submittal Title: Soil Vapor/Soil Gas 5-14-2010 Facility Global ID: T0600100081 Facility Name: ARCO #02035 File Name: 10051335.zip Organization Name: Broadbent & Associates, Inc. Username: **BROADBENT-C** IP Address: 67.118.40.90 Submittal Date/Time: 6/18/2010 12:56:58 PM **Confirmation Number:** 7607987761

VIEW QC REPORT

**VIEW DETECTIONS REPORT** 

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# STATE WATER RESOURCES CONTROL BOARD

UPLOADING A GEO\_MAP FILE

### SUCCESS

Your GEO\_MAP file has been successfully submitted!

Submittal Type: Facility Global ID: Facility Name: File Name: Username: Username: IP Address: Submittal Date/Time: Confirmation Number: GEO\_MAP T0600100081 ARCO #02035 Site Plan Layout1 (1).pdf Broadbent & Associates, Inc. BROADBENT-C 67.118.40.90 6/18/2010 12:33:24 PM 4166245818

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