

***REPORT OF LIMITED PHASE II ENVIRONMENTAL SITE
ASSESSMENT, APPROXIMATE 26(±)-ACRE PARCEL WITH
ASSESSOR'S PARCEL NUMBER APN 188-120-09-00;
APPROXIMATE 40(±)-ACRE PARCEL WITH ASSESSOR'S
PARCEL NUMBER APN 188-120-10-00; AND APPROXIMATE
11(±)-ACRE PARCEL WITH ASSESSOR'S PARCEL NUMBER APN
188-120-12-00 ADJACENT THE EAST SIDE OF COLE GRADE
ROAD, VALLEY CENTER, SAN DIEGO COUNTY, CALIFORNIA***

NORTHLIGHT POWER, LLC

***SEPTEMBER 24, 2013
J.N. 12-366***

**SDC PDS RCVD 10-01-13
MUP13-019**

Riverside County / Environmental

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*past + present + future
it's in our science*

Engineers, Geologists
Environmental Scientists

September 23, 2013
J.N. 12-366

Mr. Ed Cook
Northlight Power, LLC
83 South King Street, Suite 200
Seattle, Washington 98104

Subject: Report of Limited Phase II Environmental Site Assessment, Approximate 26(±)-Acre Parcel with Assessor's Parcel Number APN 188-120-09-00; Approximate 40(±)-Acre Parcel with Assessor's Parcel Number APN 188-120-10-00; and Approximate 11(±)-Acre Parcel with Assessor's Parcel Number APN 188-120-12-00 Adjacent the East Side of Cole Grade Road, Valley Center, San Diego County, California

Dear Mr. Cook:

The Environmental Division of Petra Geotechnical, Inc. (Petra) is pleased to present this Limited Phase II Environmental Investigation of near surface soil and well water testing for the above-referenced site. This investigation has been conducted in accordance with our Supplemental Proposal No. 12-366, dated June 20, 2013.

The information presented in this report discusses the results of our recent field investigation and includes a summary of our findings and recommendations. This report was prepared at the request of Northlight Power, LLC for their exclusive use. Use of this report or reliance thereon by other parties or projects is not authorized. The report may not be suitable for other parties or other purposes.

SITE DESCRIPTION

The subject parcels are located south of Pala Mountain along the east side of Cole Grade Road, west of Wilhite Lane, north of Millco Lane, with one parcel north of Via Valencia and two parcels south of Via Valencia, in Valley Center, San Diego County, California. A site location map is included as Figure 1.

The two parcels south of Via Valencia with Assessor Parcel Numbers APN 188-120-09-00 and 188-120-10-00 encompass approximately 66± acres. These parcels are roughly rectangular in shape and essentially comprised of agricultural fields and orchards that are separated by either dirt access roads or rows of mature windbreaker trees. Several structures including a house and garage are located within the north central portion of this area. These parcels consist of moderately sloping hills within the eastern portion

and gently sloping land within the western portion. A tributary (blue line stream and riparian preserve) traverses the site from the northeast to the southwest.

The parcel located north of Via Valencia is comprised of a single parcel with Assessor Parcel Numbers APN 188-120-12-00 which encompasses approximately 11± acres. This parcel is roughly square in shape and is comprised of agricultural orchards. The site consists of gently sloping land toward a tributary which traverses the site from the north to the south within the west-central portion of the site. A map showing the current configuration of the site is included as Figure 2.

PURPOSE

Based on information obtained during our Phase I Environmental Site Assessment (Petra, 2013) the purpose of the additional proposed investigation is to evaluate the potential for impact to the near surface soils from items identified as potential recognized environmental conditions. The specific identified potential recognized environmental conditions are: 1) pesticides within surficial soils from past onsite agricultural use; and 2) hydrocarbons within the wells from illegal dumping, prior to site grading.

SCOPE OF SERVICES

Petra conducted this limited Phase II investigation to evaluate the potential for the presence of Organochlorine Pesticides (OCPs) in the near-surface soils and hydrocarbons within the onsite wells and the potential impacts of such substances on future commercial development of the site. Soil testing was completed in previous agricultural land use areas with the highest likelihood of contamination (i.e., potential well site mixing areas) for pesticides. Samples not analyzed were archived for possible future analysis subject to applicable hold times. A sample location map is provided as Figure 3.

This Limited Phase II Investigation consisted of the following services:

Task 1 – Research. Petra reviewed the referenced Phase I ESA report (Petra, 2013) along with historic aerial photographs from Environmental Data Resources, Inc. (EDR, 2013) to determine the most appropriate sample locations due to past agricultural land use.

Task 2 - Soil Sampling. Petra collected soil samples on July 24, 2013 from eight (8) hand-auger locations at depths from approximately 0.5, 1.5 and 3 feet below ground surface (bgs). One additional duplicate soil sample was collected for Quality Control (QC) purposes. Samples were delivered to a State-Certified laboratory. The shallow samples from approximately 0.5 bgs were tested discreetly for Organochlorine Pesticides (OCPs) using EPA Method 8081A. The deeper samples at approximately 1.5 and 3.0 fbg were placed on hold pending the analytical results of the shallow samples.

As required, hand auger equipment was cleaned between sampling events with an Alconox-water wash, followed by a tap water rinse and a final rinse with distilled water. Purge water from the decon of sampling equipment was stored pending laboratory results and prior to appropriate disposal.

Task 3 – Water Sampling. Petra collected water samples from five wells onsite on July 24, 2013. A second round of water sampling was conducted onsite on August 16, 2013 after the discovery of three additional onsite wells. Six of the wells (W-1, W-2, W-3, W-4, W-5, and W-6) are operational agricultural wells. The remaining two well sites (W-7 and W-8) are just well casings and non-operational wells. All eight wells were sampled utilizing a three foot long bailer or from the well spigot. Samples were delivered to a State-Certified laboratory and tested for Total Petroleum Hydrocarbon Chain (TPH) using EPA Method 8015B.

Task 4 - Laboratory Analysis. All samples collected during the sampling phase were submitted under chain-of-custody documentation to a state-certified laboratory. Sample analysis was conducted on a standard turn-around basis of approximately five to seven working days.

Task 5 – Data Evaluation and Reporting. Petra reviewed the laboratory findings and a discussion of these findings is presented herein. A copy of the laboratory results and chain-of-custody form is provided in Appendix A.

SAMPLING PROTOCOL

The soil samples were obtained utilizing a stainless steel hand auger with a three-inch outside diameter. All sampling equipment was decontaminated prior to the collection of each subsequent sample. Each soil sample was collected, placed into a glass jar, sealed, labeled, and placed in a cooler with ice for subsequent laboratory analysis. To prevent cross-contamination, all sampling equipment was washed with a Liquinox™ and water solution, and rinsed with distilled water, prior to introduction into the subsurface soil. Chain-of-custody procedures, including sample labeling, preservation, and handling protocols were followed for identification and tracking of the soil samples obtained.

Groundwater samples were collected from each well with a single-use disposable bailer or from the well spigot and then decanted into laboratory-supplied vials. The collected groundwater samples were labeled and placed in an ice-filled cooler pending delivery to the laboratory. Chain-of-custody procedures were implemented for sample tracking.

All samples collected were transported to, and analyzed by Enviro-Chem, Inc., Pomona, California, a State certified laboratory. Sample security was maintained and documented using sample labels and chain-of-custody records. Copies of the official laboratory reports and chain-of-custody records are included in Appendix A.

LIMITED PHASE II FIELD INVESTIGATION

Petra conducted sampling activities for the limited Phase II investigation at the subject site on July 24, and August 16, 2013. A discussion of the field activities is provided below. The approximate hand auger and well locations are shown on Figure 2.

Field Activities

Soil Samples

A total of eight (8) hand auger borings (HA-1 through HA-8) were advanced on the subject site on July 24, 2013 to a maximum depth of 3 feet bgs. The soil samples (including QC duplicate sample) were collected and analyzed for Organochlorine Pesticides (OCPs) as part of this investigative effort.

- Hand auger locations HA-1, HA-4 and HA-7 were located within drainage areas.
- Hand auger location HA-2 was located within a potential well site mixing area.
- Hand auger locations HA-3, HA-5, HA-6 and HA-8 were located in former or present agricultural fields to evaluate general use areas.
- Approximately ten percent of the locations had duplicate samples collected from the hand auger boring as a QC procedure (i.e., HA-2 @ 0.5).
- The decontamination water (rinsate) was also collected during the course of the subsurface field investigation for appropriate laboratory testing.

Well Water Samples

A total of eight (8) well water samples (W-1 through W-8) were extracted and analyzed for Total Petroleum Hydrocarbon Chain (TPH) using EPA Method 8015B

Laboratory Analysis

All samples analyzed during this investigation were analyzed by Enviro-Chem, Inc. (ECI) in Pomona, California. ECI is accredited by the California Environmental Protection Agency, Department of Health Services, Environmental Laboratory Accreditation Program (ELAP). Analyses were requested on a chain-of-custody record. Below is a discussion of the laboratory results.

Soil Samples

Eight discrete samples and one duplicate sample were tested for Organochlorine Pesticides (OCPs). One discrete sample (HA-2 0.5) contained 0.663 milligrams per kilograms (mg/kg) of total Chlordane; 0.029 mg/kg of DDD and 0.030 mg/kg of Endrin. One duplicate sample (HA-2 0.5) contained 0.556 milligrams per kilograms (mg/kg) of total Chlordane; 0.026 mg/kg of DDD and 0.027 mg/kg of Endrin. All concentrations of Organochlorine pesticides were found to be below both, the EPA Region 9 Regional Screening Level (RSL) for Industrial/Commercial use of 6.5 mg/kg for Chlordane; 7.2 mg/kg for DDD, and 180 mg/kg for Endrin and the California Human Health Screening Level (CHHSL) for Industrial/Commercial of 1.7 mg/kg for Chlordane, 9.0 mg/kg for DDD, and 230 mg/kg for Endrin. All other discrete samples analyzed were found to be non-detect.

Water Samples

Eight well water samples were extracted and analyzed for Total Petroleum Hydrocarbon Chain (TPH). One sample from Well #8 (W-8) contained 510 micrograms per liter ($\mu\text{g/L}$) for carbon chain C11-C22 (Diesel Range). All other water samples were found to be non-detect. The concentrations for TPH found within W-8 are below the California Regional Water Quality Control Board San Francisco Bay Region (RWQCBSFBR, 2008) screening levels for groundwater that is not a current or potential source of drinking water.

Investigation-Derived Wastes

Decontamination water (rinsate) was collected during the course of the soil subsurface field investigation. One discrete sample of the rinsate was then analyzed by the laboratory prior to appropriate disposal. No detectable levels of OCPs were present in the sample analyzed. The laboratory test results for the rinsate are included in Appendix A.

CONCLUSIONS

Soil Samples

In summary, the pesticide levels in the soil samples analyzed were either non-detect or below their respective Regional Screening Level (RSL, 2013) and California Human Health Screening Level (CHHSL, 2010). Therefore, based on our Phase I ESA (Petra, 2013) and Limited Phase II Environmental Investigation, pesticide residues do not appear to represent a recognized environmental condition with regards to the site soils analyzed.

Water Samples

In summary, the Total Petroleum Hydrocarbon (TPH) levels in the water samples analyzed were either non-detect or below the California Regional Water Quality Control Board San Francisco Bay Region (RWQCBSFBR, 2008) screening levels for groundwater that is not a current or potential source of drinking water. Therefore, based on our Phase I ESA (Petra, 2013) and Limited Phase II Environmental Investigation, TPH Carbon Chain does not appear to represent a recognized environmental condition with regards to the water samples analyzed from the wells sampled. However, it is Petra's opinion that the two non-operational wells (W-7 and W-8) should be capped and sealed to preclude access to these wells.

No further evaluation and/or testing are considered warranted for the intended commercial use of the project, at this time.

LIMITATIONS

The work activities described herein were conducted to address the specific issues as discussed in this report. No other areas of the subject site were assessed as part of this investigation.

This opportunity to be of service to you is sincerely appreciated. Please do not hesitate to call this office if you have questions pertaining to this report.

Respectfully submitted,

Petra Geotechnical, Inc.
ENVIRONMENTAL DIVISION


Jonathan Cain
Senior Project Geologist


Siamak Jafroudi, PhD
Principal, Sr. Principal Engineer
GE 2024

JC/SJ/kms/jma

Distribution: (3) Addressee

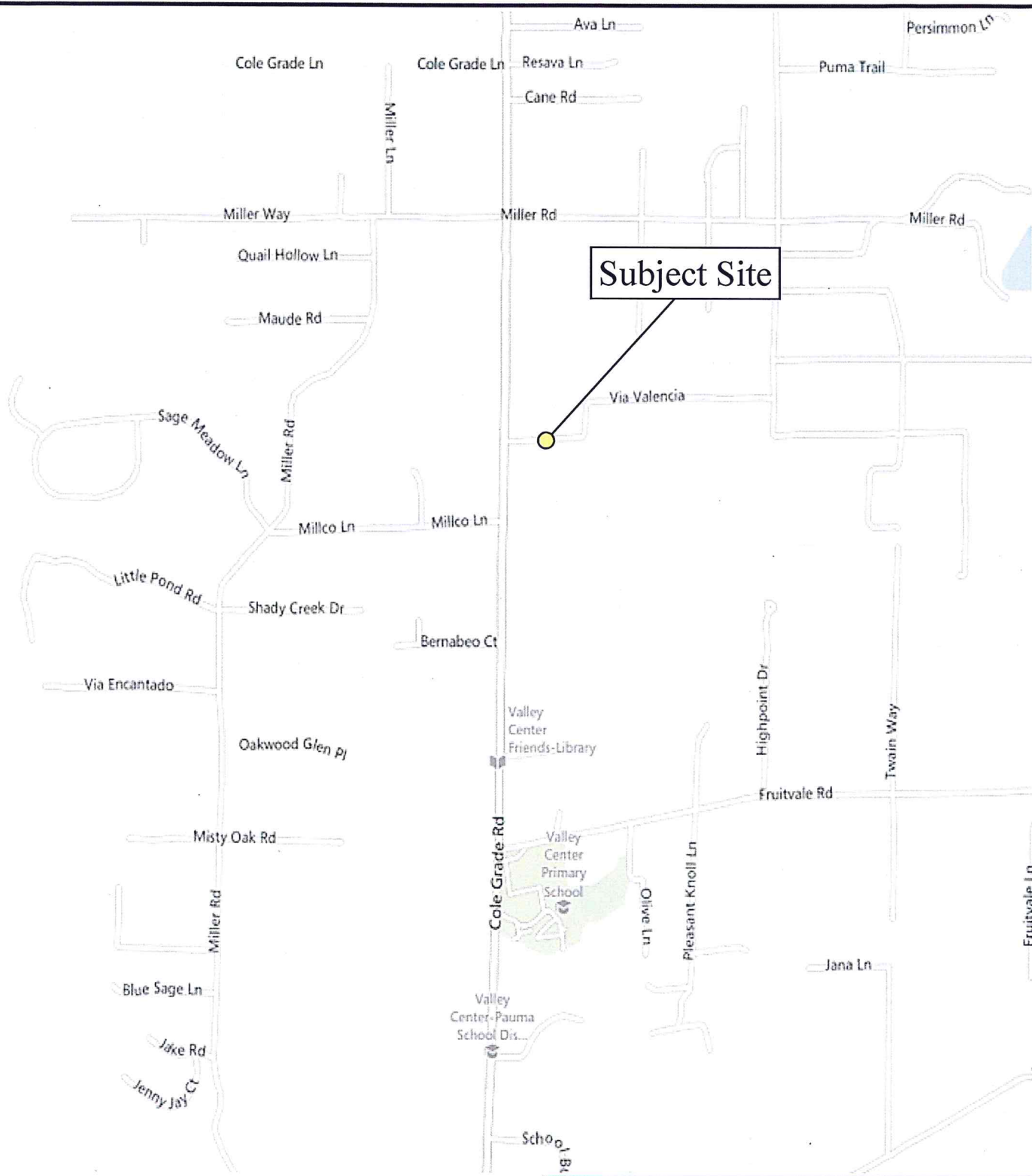
Attachments: References
Figure 1 – Site Location Map
Figure 2 – Site Plan and Sample Location Map
Appendix A – Laboratory Test Data and Chain-Of-Custody



REFERENCES

- California Department of Water Resources, 1981, Water Well Standards - Bulletins 74-81, dated December.
- California Department of Water Resources, 1990, Monitoring Well Standards - Bulletins 74-90.
- California Environmental Protection Agency, 2010, Soil-Screening Numbers, updated table, Office of Environmental Health Hazard Assessment, dated September 23.
- _____, 2009, Revised California Human Health Screening Levels (CHHSLs) for Lead, Office of Environmental Health Hazard Assessment, dated September.
- _____, 2005, Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties, Office of Environmental Health Hazard Assessment, dated January.
- California Regional Water Quality Control Board, 2008, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final- November 2007 (Revised May 2008).
- Environmental Data Resources, Inc., 2012, The EDR Aerial Photo Decade Package, Cole Grade Road, Cole Grade Road, Valley Center, CA 92082 (Inquiry No. 3480254.5), dated December 26.
- Environmental Protection Agency, 2013, Region 9 - Regional Screening Level (RSL) Summary Table, dated May.
- _____, 2010, "EPA Region 9 Regional Screening Levels."
- Petra Geotechnical, Inc., 2013, Phase I Environmental Site Assessment; Approximate 26(±)-Acre Parcel with Assessors Parcel Number APN 188-120-09-00, and Approximate 40(±)-Acre Parcel with Assessors Parcel Number APN 188-120-10-00, Adjacent the East Side of Cole Grade Road, Valley Center, San Diego County, California, J.N. 366-12, dated April 3.

FIGURES



Reference: Bing Maps



PETRA GEOTECHNICAL, INC.

40880 County Center Drive, Suite R
 Temecula, California 92591
 PHONE: (951) 600-9271

COSTA MESA TEMECULA PALM DESERT SAN DIEGO SANTA CLARITA

SITE LOCATION MAP

North Light LLC. Project
 C908 Solar Site
 Valley Center, CA

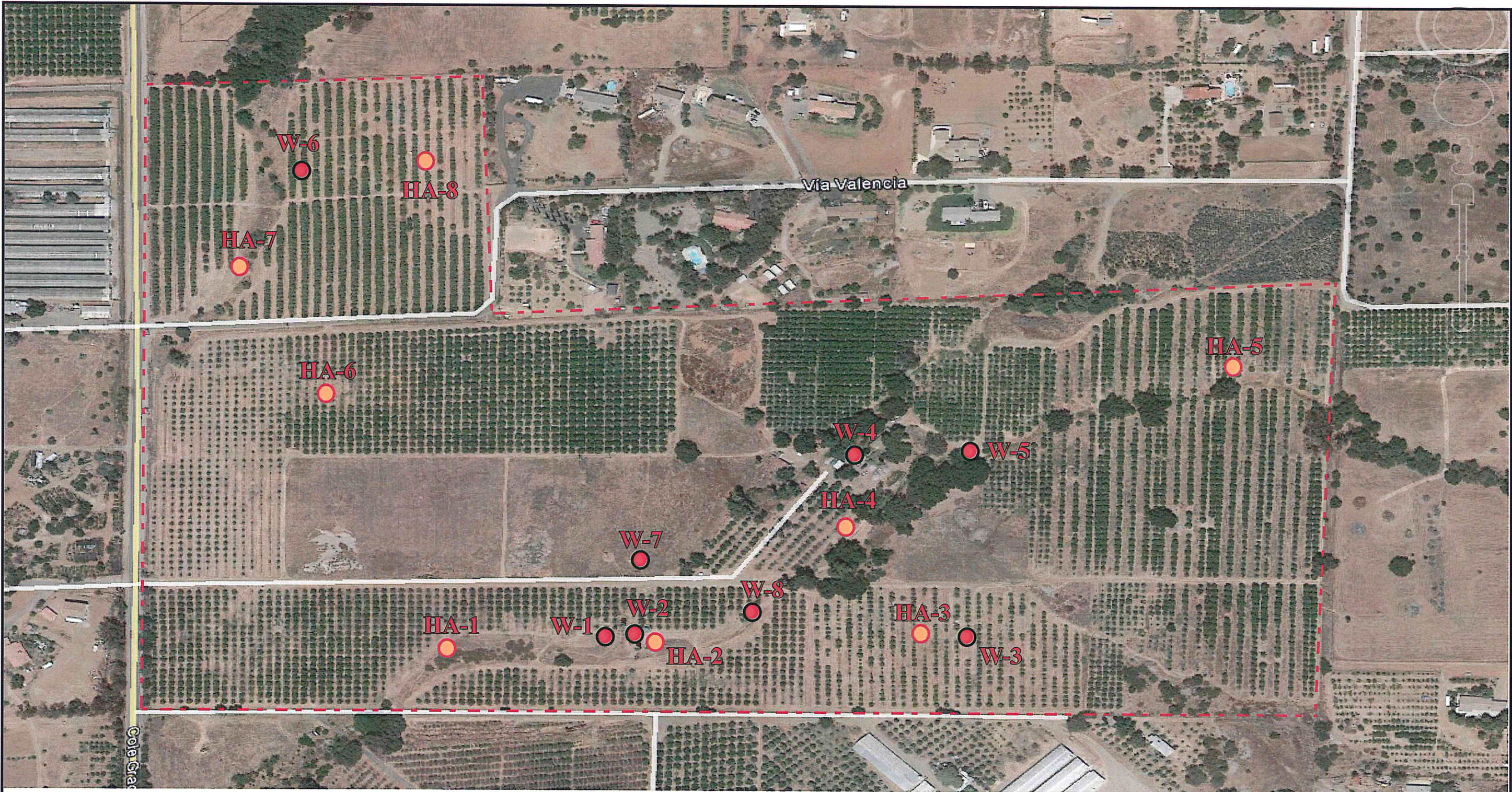
DATE: Sept 2013

J.N.: 12-366

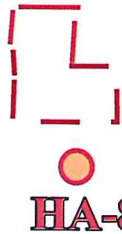
DWG BY: LH

SCALE: NTS

Figure 1



EXPLANATION



Approximate Location of Site Boundary

Approximate Location of Hand-Auger samples



Approximate locations of well samples



Reference: Google Earth



PETRA GEOTECHNICAL, INC.

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Telephone: (951) 600-9271

COSTA MESA TEMECULA PALM DESERT SAN DIEGO SANTA CLARITA

SAMPLE LOCATION MAP

Northlight Power, LLC. Project
C908 Solar Site
Valley Center, California

DATE: Sept 2013

J.N.: 12-366

DWG BY: LH

SCALE: NTS

Figure 2

APPENDIX A

LABORATORY TEST DATA AND CHAIN-OF-CUSTODY

Enviro - Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

Date: July 31, 2013

Mr. Jon Cain
Petra Geotechnical Inc.
38655 Sky Canyon Drive
Murrieta, CA 92563
Tel(951)600-9271 Fax(951)600-9215

Project: **12-366**
Lab I.D.: **130724-28 through -58**

Dear Mr. Cain:

The **analytical results** for the soil and water samples, received by our lab on July 24, 2013, are attached. The samples were received chilled, intact and accompanying chain of custody record.

Enviro-Chem appreciates the opportunity to provide you and your company this and other services. Please do not hesitate to call us if you have any questions.

Sincerely,



Curtis Desilets
Vice President/Program Manager



Andy Wang
Laboratory Manager

LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.
38655 Sky Canyon Drive
Murrieta, CA 92563
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-366
MATRIX: WATER
DATE SAMPLED: 07/24/13
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/24/13
DATE EXTRACTED: 07/24/13
DATE ANALYZED: 07/25/13
DATE REPORTED: 07/31/13

TOTAL PETROLEUM HYDROCARBONS (TPH) - CARBON CHAIN ANALYSIS

METHOD: EPA 8015B

UNIT: ug/L = MICROGRAM PER LITER = PPB

SAMPLE I.D.	LAB I.D.	C4-C10	C11-C22	C23-C35	DF
Well #1	130724-28	ND	ND	ND	1
Well #2	130724-29	ND	ND	ND	1
Well #3	130724-30	ND	ND	ND	1
Well #4	130724-31	ND	ND	ND	1
Well #5	130724-32	ND	ND	ND	1
METHOD BLANK		ND	ND	ND	1
	PQL	500	500	3000	

COMMENTS

C4-C10 = GASOLINE RANGE

C11-C22 = DIESEL RANGE

C23-C35 = MOTOR OIL RANGE

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = DF X PQL

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

Data Reviewed and Approved by: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro Chem, Inc

1214 E. Lexington Avenue, Pomona, CA 91766

Tel (909)590-5905 Fax (909)590-5907

8015B QA/QC Report

Date Analyzed: 7/25/2013

Units: ug/L (PPB)

Matrix: Water/Liquid

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: 130724-28 MS/MSD

Analyte	SR	spk conc	MS	%MS	MSD	%MSD	%RPD	ACP %MS	ACP RPD
C11-C22 RANGE	0	12000	12300	103%	12500	104%	2%	75-125	0-20%

LCS STD RECOVERY:

Analyte	spk conc	LCS	% REC	ACP
C11-C22 RANGE	12000	12000	100%	75-125

Analyzed and Reviewed by: 

Final Reviewer: 

LABORATORY REPORT

CUSTOMER: **Petra Geotechnical Inc.**
38655 Sky Canyon Drive
Murrieta, CA 92563
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: **12-366**
MATRIX: **SOIL**
DATE SAMPLED: **07/24/13**
REPORT TO: **MR. JON CAIN**

DATE RECEIVED: **07/24/13**
DATE EXTRACTED: **07/25/13**
DATE ANALYZED: **07/25/13**
DATE REPORTED: **07/31/13**

SAMPLE I.D.: **HA-1 @ .5'**

LAB I.D.: **130724-33**

Organochlorine Pesticides Analysis

Method: **EPA 8081A**

Unit: **mg/Kg = Milligram Per Kilogram = PPM**

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1
alpha-BHC	ND	0.001	1
beta-BHC	ND	0.001	1
gamma-BHC (Lindane)	ND	0.001	1
delta-BHC	ND	0.001	1
alpha-Chlordane	ND	0.001	1
gamma-Chlordane	ND	0.001	1
Total Chlordane (Technical)	ND	0.005	1
4,4'-DDD	ND	0.001	1
4,4'-DDE	ND	0.001	1
4,4'-DDT	ND	0.001	1
Dieldrin	ND	0.001	1
Endosulfan I	ND	0.001	1
Endosulfan II	ND	0.001	1
Endosulfan Sulfate	ND	0.001	1
Endrin	ND	0.001	1
Endrin Aldehyde	ND	0.001	1
Endrin Ketone	ND	0.001	1
Heptachlor Epoxide	ND	0.001	1
Heptachlor	ND	0.001	1
Methoxychlor	ND	0.001	1
Toxaphene	ND	0.020	1

COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.
38655 Sky Canyon Drive
Murrieta, CA 92563
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-366
MATRIX: SOIL
DATE SAMPLED: 07/24/13
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/24/13
DATE EXTRACTED: 07/25/13
DATE ANALYZED: 07/29/13
DATE REPORTED: 07/31/13

SAMPLE I.D.: HA-2 @ .5'

LAB I.D.: 130724-36

Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	25
alpha-BHC	ND	0.001	25
beta-BHC	ND	0.001	25
gamma-BHC (Lindane)	ND	0.001	25
delta-BHC	ND	0.001	25
alpha-Chlordane	0.140	0.001	25
gamma-Chlordane	0.064	0.001	25
Total Chlordane (Technical)	0.663	0.005	25
4,4'-DDD	0.029	0.001	25
4,4'-DDE	ND	0.001	25
4,4'-DDT	ND	0.001	25
Dieldrin	ND	0.001	25
Endosulfan I	ND	0.001	25
Endosulfan II	ND	0.001	25
Endosulfan Sulfate	ND	0.001	25
Endrin	0.030	0.001	25
Endrin Aldehyde	ND	0.001	25
Endrin Ketone	ND	0.001	25
Heptachlor Epoxide	ND	0.001	25
Heptachlor	ND	0.001	25
Methoxychlor	ND	0.001	25
Toxaphene	ND	0.020	25

COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY:
CAL-DHS ELAP CERTIFICATE No.: 1555

INDUSTRIAL

CHLOR
1.7
9.0
6.5
7.2

230 130

LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.
38655 Sky Canyon Drive
Murrieta, CA 92563
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-366
MATRIX: SOIL
DATE SAMPLED: 07/24/13
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/24/13
DATE EXTRACTED: 07/25/13
DATE ANALYZED: 07/29/13
DATE REPORTED: 07/31/13

SAMPLE I.D.: HA-2 @ 0.5' Duplicate

LAB I.D.: 130724-37

Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	25
alpha-BHC	ND	0.001	25
beta-BHC	ND	0.001	25
gamma-BHC (Lindane)	ND	0.001	25
delta-BHC	ND	0.001	25
alpha-Chlordane	0.119	0.001	25
gamma-Chlordane	0.052	0.001	25
Total Chlordane (Technical)	0.556	0.005	25
4,4'-DDD	0.026	0.001	25
4,4'-DDE	ND	0.001	25
4,4'-DDT	ND	0.001	25
Dieldrin	ND	0.001	25
Endosulfan I	ND	0.001	25
Endosulfan II	ND	0.001	25
Endosulfan Sulfate	ND	0.001	25
Endrin	0.027	0.001	25
Endrin Aldehyde	ND	0.001	25
Endrin Ketone	ND	0.001	25
Heptachlor Epoxide	ND	0.001	25
Heptachlor	ND	0.001	25
Methoxychlor	ND	0.001	25
Toxaphene	ND	0.020	25

COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.
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Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-366
MATRIX: SOIL
DATE SAMPLED: 07/24/13
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/24/13
DATE EXTRACTED: 07/25/13
DATE ANALYZED: 07/25/13
DATE REPORTED: 07/31/13

SAMPLE I.D.: HA-3 @ 0.5'

LAB I.D.: 130724-40

Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1
alpha-BHC	ND	0.001	1
beta-BHC	ND	0.001	1
gamma-BHC (Lindane)	ND	0.001	1
delta-BHC	ND	0.001	1
alpha-Chlordane	ND	0.001	1
gamma-Chlordane	ND	0.001	1
Total Chlordane (Technical)	ND	0.005	1
4,4'-DDD	ND	0.001	1
4,4'-DDE	ND	0.001	1
4,4'-DDT	ND	0.001	1
Dieldrin	ND	0.001	1
Endosulfan I	ND	0.001	1
Endosulfan II	ND	0.001	1
Endosulfan Sulfate	ND	0.001	1
Endrin	ND	0.001	1
Endrin Aldehyde	ND	0.001	1
Endrin Ketone	ND	0.001	1
Heptachlor Epoxide	ND	0.001	1
Heptachlor	ND	0.001	1
Methoxychlor	ND	0.001	1
Toxaphene	ND	0.020	1

COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.
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PROJECT: 12-366
MATRIX: SOIL
DATE SAMPLED: 07/24/13
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/24/13
DATE EXTRACTED: 07/25/13
DATE ANALYZED: 07/25/13
DATE REPORTED: 07/31/13

SAMPLE I.D.: HA-4 @ .5'

LAB I.D.: 130724-43

Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1
alpha-BHC	ND	0.001	1
beta-BHC	ND	0.001	1
gamma-BHC (Lindane)	ND	0.001	1
delta-BHC	ND	0.001	1
alpha-Chlordane	ND	0.001	1
gamma-Chlordane	ND	0.001	1
Total Chlordane (Technical)	ND	0.005	1
4,4'-DDD	ND	0.001	1
4,4'-DDE	ND	0.001	1
4,4'-DDT	ND	0.001	1
Dieldrin	ND	0.001	1
Endosulfan I	ND	0.001	1
Endosulfan II	ND	0.001	1
Endosulfan Sulfate	ND	0.001	1
Endrin	ND	0.001	1
Endrin Aldehyde	ND	0.001	1
Endrin Ketone	ND	0.001	1
Heptachlor Epoxide	ND	0.001	1
Heptachlor	ND	0.001	1
Methoxychlor	ND	0.001	1
Toxaphene	ND	0.020	1

COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.
38655 Sky Canyon Drive
Murrieta, CA 92563
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-366
MATRIX: SOIL
DATE SAMPLED: 07/24/13
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/24/13
DATE EXTRACTED: 07/25/13
DATE ANALYZED: 07/25/13
DATE REPORTED: 07/31/13

SAMPLE I.D.: HA-5 @ .5'

LAB I.D.: 130724-46

Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1
alpha-BHC	ND	0.001	1
beta-BHC	ND	0.001	1
gamma-BHC (Lindane)	ND	0.001	1
delta-BHC	ND	0.001	1
alpha-Chlordane	ND	0.001	1
gamma-Chlordane	ND	0.001	1
Total Chlordane (Technical)	ND	0.005	1
4,4'-DDD	ND	0.001	1
4,4'-DDE	ND	0.001	1
4,4'-DDT	ND	0.001	1
Dieldrin	ND	0.001	1
Endosulfan I	ND	0.001	1
Endosulfan II	ND	0.001	1
Endosulfan Sulfate	ND	0.001	1
Endrin	ND	0.001	1
Endrin Aldehyde	ND	0.001	1
Endrin Ketone	ND	0.001	1
Heptachlor Epoxide	ND	0.001	1
Heptachlor	ND	0.001	1
Methoxychlor	ND	0.001	1
Toxaphene	ND	0.020	1

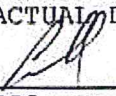
COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.
38655 Sky Canyon Drive
Murrieta, CA 92563
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-366
MATRIX: SOIL
DATE SAMPLED: 07/24/13
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/24/13
DATE EXTRACTED: 07/25/13
DATE ANALYZED: 07/29/13
DATE REPORTED: 07/31/13

SAMPLE I.D.: HA-6 @ .5'

LAB I.D.: 130724-49

Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	10*
alpha-BHC	ND	0.001	10*
beta-BHC	ND	0.001	10*
gamma-BHC (Lindane)	ND	0.001	10*
delta-BHC	ND	0.001	10*
alpha-Chlordane	ND	0.001	10*
gamma-Chlordane	ND	0.001	10*
Total Chlordane (Technical)	ND	0.005	10*
4,4'-DDD	ND	0.001	10*
4,4'-DDE	ND	0.001	10*
4,4'-DDT	ND	0.001	10*
Dieldrin	ND	0.001	10*
Endosulfan I	ND	0.001	10*
Endosulfan II	ND	0.001	10*
Endosulfan Sulfate	ND	0.001	10*
Endrin	ND	0.001	10*
Endrin Aldehyde	ND	0.001	10*
Endrin Ketone	ND	0.001	10*
Heptachlor Epoxide	ND	0.001	10*
Heptachlor	ND	0.001	10*
Methoxychlor	ND	0.001	10*
Toxaphene	ND	0.020	10*

COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

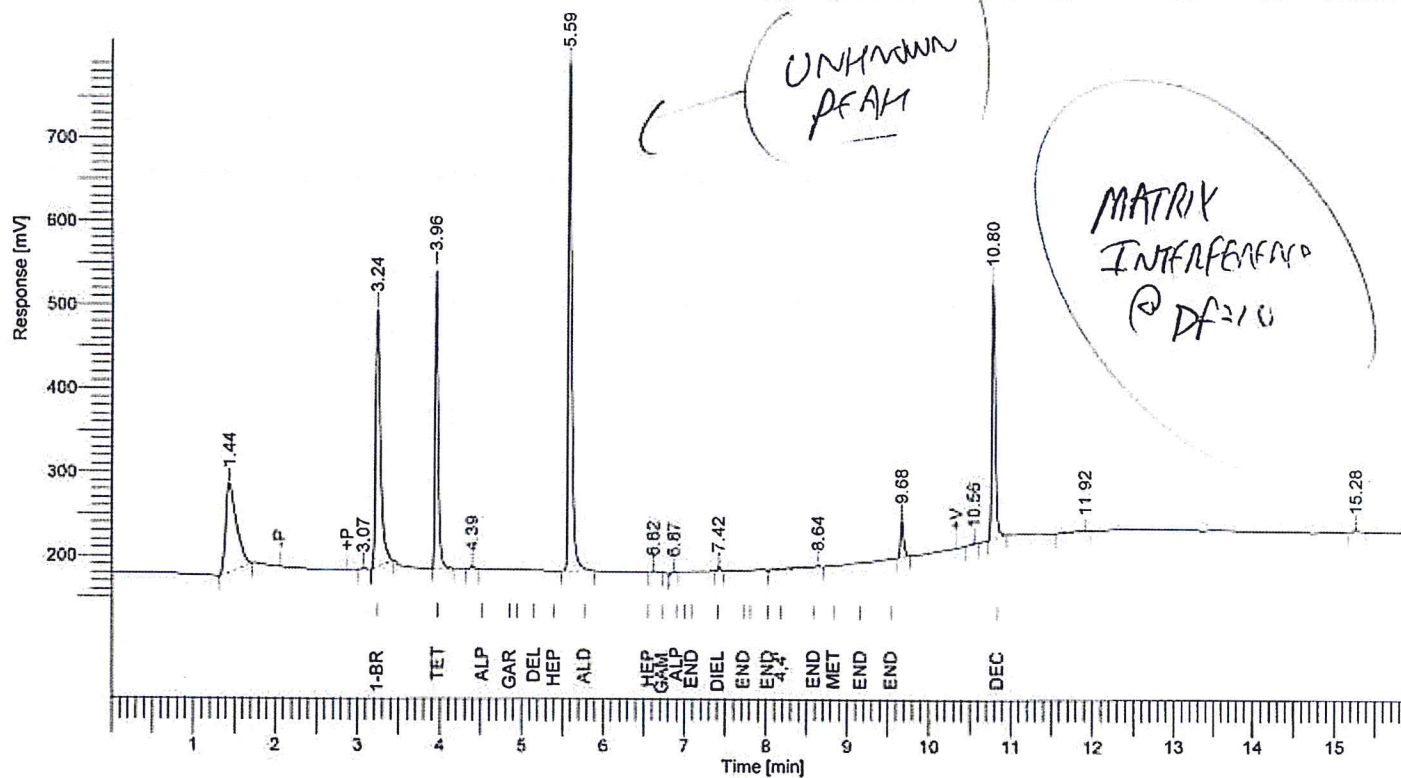
* = ACTUAL DETECTION LIMIT RAISED DUE TO MATRIX INTERFERENCE

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Software Version : 6.3.2.0646
 Sample Name : 130724-49 20/20 RE
 Instrument Name : GC-J
 Rack/Vial : Q/8
 Sample Amount : 1.000000
 Cycle : 9

Date : 7/29/2013 1:08:04 PM
 Data Acquisition Time : 7/29/2013 11:54:23 AM
 Channel : A
 Operator : Manager
 Dilution Factor : 1.000000

Result File : D:\GC DATA\GC-J\J02013\J1307\J130729\A009.rst
 Sequence File : D:\GC DATA\GC-J\J02013\J1307\J130729\J130729.seq



Results

Component Name	Time [min]	Area [uV*sec]	Height [uV]	Adjusted Amount
1-Bromo-2-Nitrobenze	3.24	1239901	306216	
Tetra chloro-meta-xy	3.96	942803	346888	102.9678
Alpha-BHC	4.39	13969	4377	0.0005
Heptachlor Epoxide	6.62	5108	1607	0.0002
Alpha Chlordane	6.87	10958	2440	0.0005
Dieldrin	7.42	12234	5097	0.0006
Endrin Aldhyde	8.64	53570	1356	0.0036
Decachlorobiphenyl	10.80	846983	297144	69.2591
		3125527	965124	172.2324

LABORATORY REPORT

CUSTOMER: Petra Geotechnical Inc.
38655 Sky Canyon Drive
Murrieta, CA 92563
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-366
MATRIX: SOIL
DATE SAMPLED: 07/24/13
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/24/13
DATE EXTRACTED: 07/25/13
DATE ANALYZED: 07/25/13
DATE REPORTED: 07/31/13

SAMPLE I.D.: HA-7 @ .5'

LAB I.D.: 130724-52

Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1
alpha-BHC	ND	0.001	1
beta-BHC	ND	0.001	1
gamma-BHC (Lindane)	ND	0.001	1
delta-BHC	ND	0.001	1
alpha-Chlordane	ND	0.001	1
gamma-Chlordane	ND	0.001	1
Total Chlordane (Technical)	ND	0.005	1
4,4'-DDD	ND	0.001	1
4,4'-DDE	ND	0.001	1
4,4'-DDT	ND	0.001	1
Dieldrin	ND	0.001	1
Endosulfan I	ND	0.001	1
Endosulfan II	ND	0.001	1
Endosulfan Sulfate	ND	0.001	1
Endrin	ND	0.001	1
Endrin Aldehyde	ND	0.001	1
Endrin Ketone	ND	0.001	1
Heptachlor Epoxide	ND	0.001	1
Heptachlor	ND	0.001	1
Methoxychlor	ND	0.001	1
Toxaphene	ND	0.020	1

COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

LABORATORY REPORT

CUSTOMER: **Petra Geotechnical Inc.**
38655 Sky Canyon Drive
Murrieta, CA 92563
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: **12-366**
MATRIX: **SOIL**
DATE SAMPLED: **07/24/13**
REPORT TO: **MR. JON CAIN**

DATE RECEIVED: **07/24/13**
DATE EXTRACTED: **07/25/13**
DATE ANALYZED: **07/25/13**
DATE REPORTED: **07/31/13**

SAMPLE I.D.: **HA-8 @ .5'**

LAB I.D.: **130724-55**

Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1
alpha-BHC	ND	0.001	1
beta-BHC	ND	0.001	1
gamma-BHC (Lindane)	ND	0.001	1
delta-BHC	ND	0.001	1
alpha-Chlordane	ND	0.001	1
gamma-Chlordane	ND	0.001	1
Total Chlordane (Technical)	ND	0.005	1
4,4'-DDD	ND	0.001	1
4,4'-DDE	ND	0.001	1
4,4'-DDT	ND	0.001	1
Dieldrin	ND	0.001	1
Endosulfan I	ND	0.001	1
Endosulfan II	ND	0.001	1
Endosulfan Sulfate	ND	0.001	1
Endrin	ND	0.001	1
Endrin Aldehyde	ND	0.001	1
Endrin Ketone	ND	0.001	1
Heptachlor Epoxide	ND	0.001	1
Heptachlor	ND	0.001	1
Methoxychlor	ND	0.001	1
Toxaphene	ND	0.020	1

COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

METHOD BLANK REPORT

CUSTOMER: Petra Geotechnical Inc.
38655 Sky Canyon Drive
Murrieta, CA 92563
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-366
MATRIX: SOIL
DATE SAMPLED: 07/24/13
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/24/13
DATE EXTRACTED: 07/25/13
DATE ANALYZED: 07/25/13
DATE REPORTED: 07/31/13

METHOD BLANK FOR LAB I.D.: 130724-33, -40, -43, -46, -52, -55

Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1
alpha-BHC	ND	0.001	1
beta-BHC	ND	0.001	1
gamma-BHC (Lindane)	ND	0.001	1
delta-BHC	ND	0.001	1
alpha-Chlordane	ND	0.001	1
gamma-Chlordane	ND	0.001	1
Total Chlordane (Technical)	ND	0.005	1
4,4'-DDD	ND	0.001	1
4,4'-DDE	ND	0.001	1
4,4'-DDT	ND	0.001	1
Dieldrin	ND	0.001	1
Endosulfan I	ND	0.001	1
Endosulfan II	ND	0.001	1
Endosulfan Sulfate	ND	0.001	1
Endrin	ND	0.001	1
Endrin Aldehyde	ND	0.001	1
Endrin Ketone	ND	0.001	1
Heptachlor Epoxide	ND	0.001	1
Heptachlor	ND	0.001	1
Methoxychlor	ND	0.001	1
Toxaphene	ND	0.020	1

COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro-Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766

Tel (909)590-5905 Fax (909)590-5907

EPA 8081 QA/QC Report

Matrix: **Soil/Solid/Liquid(Oil)**

Date Analyzed: **7/25-26/2013**

Unit: **mg/Kg (ppm)**

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: **130724-55 MS/MSD**

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0.000	0.0050	0.0055	110%	0.0055	109%	1%	0-20%	70-130
Aldrin	0.000	0.0050	0.0055	111%	0.0055	111%	0%	0-20%	70-130
4,4-DDE	0.000	0.0050	0.0058	117%	0.0061	121%	4%	0-20%	70-130

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.00500	0.00527	105%	75-125
Aldrin	0.00500	0.00531	106%	75-125
4,4-DDE	0.00500	0.00574	115%	75-125
Dieldrin	0.00500	0.00521	104%	75-125

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		MB	130724-2.3.4	130724-33	130724-40	130724-43	130724-46	130724-52
Tetra-chloro-meta-xylene	50-150	96%	77%	86%	101%	101%	92%	80%
Decachlorobiphenyl	50-150	65%	80%	63%	67%	68%	62%	76%

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		130724-55	MB					
Tetra-chloro-meta-xylene	50-150	99%	148%					
Decachlorobiphenyl	50-150	67%	107%					

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.								
Tetra-chloro-meta-xylene	50-150							
Decachlorobiphenyl	50-150							

S.R. = Sample Result

* = Surrogate fail due to matrix interference (If Marked)

spk conc = Spike Concentration

Note: LCS, MS, MSD are in control therefore results are in control.

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

Analyzed and Reviewed By: B

Final Reviewer: E

METHOD BLANK REPORT

CUSTOMER: Petra Geotechnical Inc.
38655 Sky Canyon Drive
Murrieta, CA 92563
Tel (951) 600-9271 Fax (951) 600-9215

PROJECT: 12-366
MATRIX: SOIL
DATE SAMPLED: 07/24/13
REPORT TO: MR. JON CAIN

DATE RECEIVED: 07/24/13
DATE EXTRACTED: 07/25/13
DATE ANALYZED: 07/25/13
DATE REPORTED: 07/31/13

METHOD BLANK FOR LAB I.D.: 130724-36, -37, -49

Organochlorine Pesticides Analysis

Method: EPA 8081A

Unit: mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1
alpha-BHC	ND	0.001	1
beta-BHC	ND	0.001	1
gamma-BHC (Lindane)	ND	0.001	1
delta-BHC	ND	0.001	1
alpha-Chlordane	ND	0.001	1
gamma-Chlordane	ND	0.001	1
Total Chlordane (Technical)	ND	0.005	1
4,4'-DDD	ND	0.001	1
4,4'-DDE	ND	0.001	1
4,4'-DDT	ND	0.001	1
Dieldrin	ND	0.001	1
Endosulfan I	ND	0.001	1
Endosulfan II	ND	0.001	1
Endosulfan Sulfate	ND	0.001	1
Endrin	ND	0.001	1
Endrin Aldehyde	ND	0.001	1
Endrin Ketone	ND	0.001	1
Heptachlor Epoxide	ND	0.001	1
Heptachlor	ND	0.001	1
Methoxychlor	ND	0.001	1
Toxaphene	ND	0.020	1

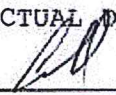
COMMENTS:

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = PQL X DF

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro-Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766

Tel (909)590-5905 Fax (909)590-5907

EPA 8081 QA/QC ReportMatrix: **Soil/Solid/Liquid(Oil)**Date Analyzed: **7/29/2013**Unit: **mg/Kg (ppm)****Matrix Spike (MS)/Matrix Spike Duplicate (MSD)****Spiked Sample Lab I.D.:** **130729-LCS1/2**

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0.000	0.0050	0.0055	110%	0.0054	108%	2%	0-20%	70-130
Aldrin	0.000	0.0050	0.0056	112%	0.0055	110%	2%	0-20%	70-130
4,4-DDE	0.000	0.0050	0.0050	99%	0.0048	96%	3%	0-20%	70-130

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.00500	0.00549	110%	75-125
Aldrin	0.00500	0.00559	112%	75-125
4,4-DDE	0.00500	0.00542	108%	75-125
Dieldrin	0.00500	0.00506	101%	75-125

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		MB	130724-36	130724-37	130724-49				
Tetra-chloro-meta-xylene	50-150	98%	95%	96%	103%				
Decachlorobiphenyl	50-150	67%	63%	65%	69%				

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.									
Tetra-chloro-meta-xylene	50-150								
Decachlorobiphenyl	50-150								

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.									
Tetra-chloro-meta-xylene	50-150								
Decachlorobiphenyl	50-150								

S.R. = Sample Result

* = Surrogate fail due to matrix interference (If Marked)

spk conc = Spike Concentration

Note: LCS, MS, MSD are in control therefore results are in control.

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

Analyzed and Reviewed By: Final Reviewer: 

CA-DHS ELAP CERTIFICATE #1555

Turnaround Time

☐ Same Day

☐ 24 Hours

☐ 48 Hours

☐ 72 Hours

☒ 1 Week (Standard)

Other:

Enviro-Chem, Inc. Laboratories 1214 E. Lexington Avenue, Pomona, CA 91766 Tel: (909) 590-5905 Fax: (909) 590-5907				CA-DHS ELAP CERTIFICATE #1555				Turnaround Time ☐ Same Day ☐ 24 Hours ☐ 48 Hours ☒ 72 Hours Other: _____			
SAMPLE ID	LAB ID	SAMPLING DATE	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required	COMMENTS			
Well #1	130724-28	07-24-13 8:03	Water	1		H ₂ SO ₄	X				
Well #2	29	8:05	Water				X				
Well #3	30	8:11	Water				X				
Well #4	31	8:17	Water				X				
Well #5	32	8:15	Water				X				
HA-1 @ .5'	33	8:38	Soil		NONE		X				
HA-1 @ 1.5'	34	8:42									
HA-1 @ 3.0'	35	8:45									
HA-2 @ .5'	36	8:57					X	Duplicate			
HA-2 @ 1.5'	37	8:59					X				
HA-2 @ 3.0'	38	9:02									
HA-3 @ .5'	39	9:05					X				
HA-3 @ 1.5'	40	9:19									
HA-3 @ 3.0'	41	9:23									
HA-9 @ .5'	42	9:31									

Misc.

CHAIN OF CUSTODY RECORD

WHITE WITH SAMPLE • YELLOW TO CLIENT

Turnaround Time

☐ Same Day

☐ 24 Hours

☐ 48 Hours

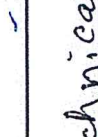
☐ 72 Hours

☒ 1 Week (Standard)

Other:

Pomona, CA 91766

CA-DHS ELAP CERTIFICATE #1555

Enviro-Chem, Inc. Laboratories 1214 E. Lexington Avenue, Pomona, CA 91766 Tel: (909) 590-5905 Fax: (909) 590-5907 CA-DHS ELAP CERTIFICATE #1555				Turnaround Time ☐ Same Day ☐ 24 Hours ☐ 48 Hours ☐ 72 Hours ☒ 1 Week (Standard) Other:								
SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required				COMMENTS
HA-4 @ 5'	130724-43	07-24-13	9:46	Soil	1	10.2	NONE	X				
HA-4 @ 1.5'	-44		9:49									
HA-4 @ 3.0'	-45		9:54									
HA-5 @ 5'	-46		10:23					X				
HA-5 @ 1.5'	-47		10:24									
HA-5 @ 3.0'	-48		10:30									
HA-6 @ 5'	-49		10:49					X				
HA-6 @ 1.5'	-50		10:54									
HA-6 @ 3.0'	-51		10:59	Soil								
HA-7 @ 5'	-52		11:14					X				
HA-7 @ 1.5'	-53		11:16									
HA-7 @ 3.0'	-54		11:21					X				
HA-8 @ 5'	-55		11:30									
HA-8 @ 1.5'	-56		11:35									
HA-8 @ 3.0'	-57		11:40									
Company Name: Petra Geotechnical Inc.				Project Contact: Jon Cain		Sampler's Signature: 						
Address: 40880 County Center Dr.				Tel: 951-600-9271		Project Name/ID: 12-366						
City/State/Zip: Temecula, CA 92591				Fax: 951-719-1499								
Relinquished by: 				Received by: 		Date & Time: 7/24/13/yw		Instructions for Sample Storage After Analysis: ☐ Dispose of ☐ Return to Client ☐ Store (30 Days) ☐ Other:				
Relinquished by:				Received by:		Date & Time:						
Relinquished by:				Received by:		Date & Time:						

CHAIN OF CUSTODY RECORD

WHITE WITH SAMPLE • YELLOW TO CLIENT

CA-DHS ELAP CERTIFICATE #1555

Turnaround Time

☐ Same Day
☐ 24 Hours
☐ 48 Hours
☐ 72 Hours
☐ 1 Week (Std)
☐ Other

[illegible]

CHAIN OF CUSTODY RECORD

WHITE WITH SAMPLE • YELLOW TO CLIENT

Enviro - Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

Date: August 20, 2013

Mr. Jon Cain
Petra Geotechnical, Inc.
40880 Country Center Drive
Temecula, CA 92591
Tel (951) 600-9271 E-Mail: JCain@petra-inc.com

Project: 12-366
Lab I.D.: 130816-25, -26, -27

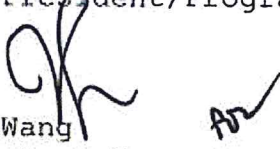
Dear Mr. Cain:

The **analytical results** for the water samples, received by our laboratory on August 16, 2013, are attached. The samples were received intact, and accompanying chain of custody.

Enviro-Chem appreciates the opportunity to provide you and your company this and other services. Please do not hesitate to call us if you have any questions.

Sincerely,


Curtis Desilets
Vice President/Program Manager


Andy Wang
Laboratory Manager

LABORATORY REPORT

CUSTOMER: Petra Geotechnical
40880 Country Center Drive
Temecula, CA 92591
Tel (951) 600-9271 E-Mail: JCain@petra-inc.com
PROJECT: 12-366
MATRIX: WATER
SAMPLING DATE: 08/16/13
REPORT TO: MR. JON CAIN
DATE RECEIVED: 08/16/13
DATE EXTRACTED: 08/16/13
DATE ANALYZED: 08/19/13
DATE REPORTED: 08/20/13

TOTAL PETROLEUM HYDROCARBONS (TPH) - CARBON CHAIN ANALYSIS

METHOD: EPA 8015B

UNIT: $\mu\text{G/L}$ = MICROGRAM PER LITER = PPB

SAMPLE I.D.	LAB I.D.	C4-C10	C11-C22	C23-C35	DF
Well #6	130816-25	ND	ND	ND	1
Well #7	130816-26	ND	ND	ND	1
Well #8	130816-27	ND	510 *	ND	1
METHOD BLANK		ND	ND	ND	1
	PQL	500	500	3000	

COMMENTS

C4-C10 = GASOLINE RANGE

C11-C22 = DIESEL RANGE

C23-C35 = MOTOR OIL RANGE

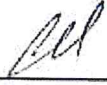
DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = $\text{DF} \times \text{PQL}$

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

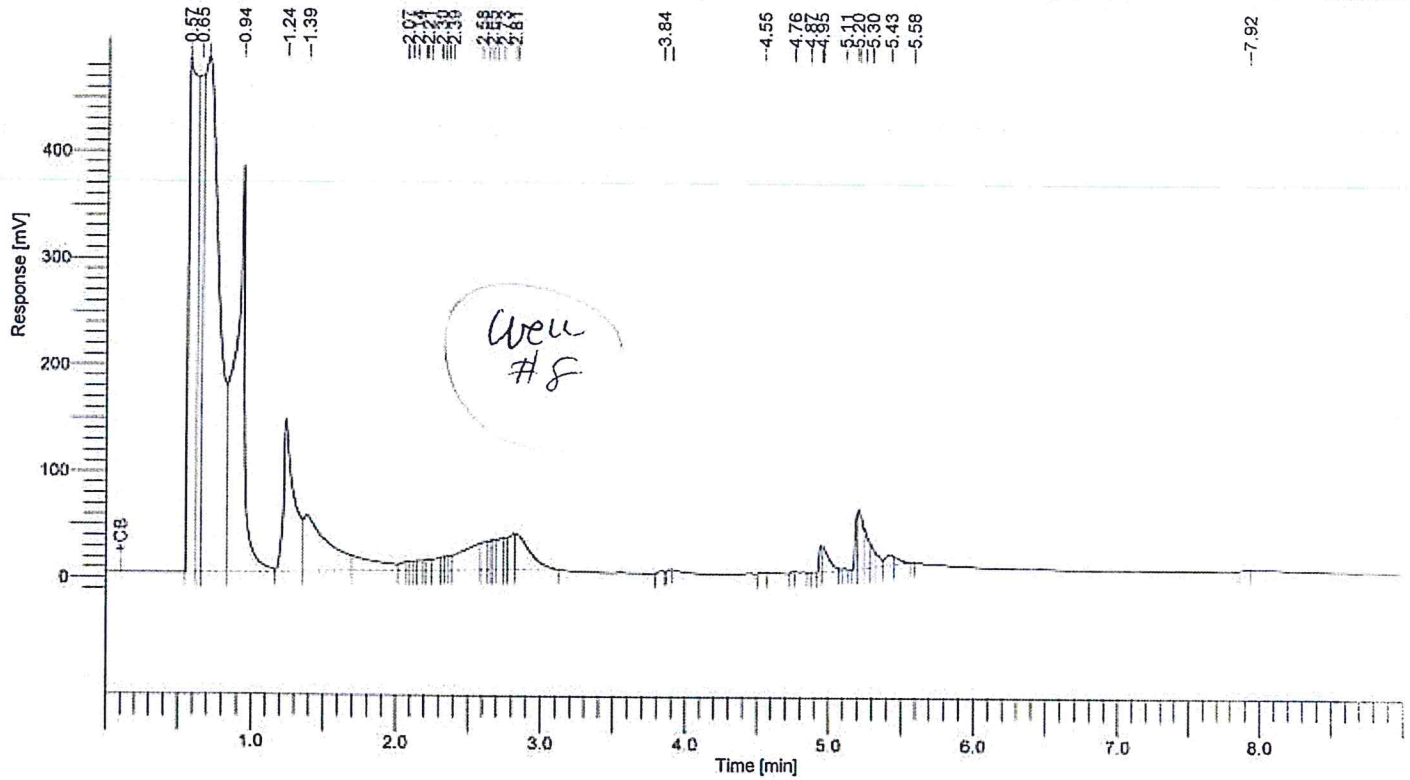
* = PEAKS IN DIESEL RANGE BUT CHROMATOGRAM DOES NOT MATCH THAT OF DIESEL STANDARD

Data Reviewed and Approved by: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Software Version : 6.3.2.0646
 Sample Name : 130816-25 50003
 Instrument Name : GC-1
 Rack/Vial : 0/31
 Sample Amount : 1.000000
 Cycle : 37

Date : 8/20/2013 9:25:41 AM
 Data Acquisition Time : 8/19/2013 7:12:02 PM
 Channel : A
 Operator : Manager
 Dilution Factor : 1.000000

Result File : D:\GC DATA\GC-1\02013\1308\130819\A037.rst
 Sequence File : D:\GC DATA\GC-1\02013\1308\130819\130819.seq



8015 Results

Component Name	Area [uV*sec]	Adjusted Amount
C4-C10	2340204	643.8
C11-C22	420550	84.9
C23-C35	39914	217.4
	2800668	946.1

Enviro Chem, Inc

1214 E. Lexington Avenue, Pomona, CA 91766

Tel (909)590-5905 Fax (909)590-5907

8015B QA/QC Report

Date Analyzed: 8/19/2013

Units: ug/L (PPB)

Matrix: Water/Liquid

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: 130816-25 MS/MSD

Analyte	SR	spk conc	MS	%MS	MSD	%MSD	%RPD	ACP %MS	ACP RPD
C11-C22 RANGE	0	12000	10100	84%	10100	84%	0%	75-125	0-20%

LCS STD RECOVERY:

Analyte	spk conc	LCS	% REC	ACP
C11-C22 RANGE	12000	9980	83%	75-125

Analyzed and Reviewed by: B

Final Reviewer: D

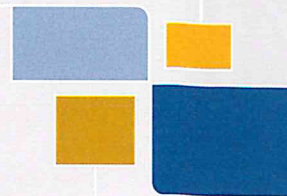
CA-DHS ELAP CERTIFICATE #1555

Turnaround Time

☐ Same Day
☐ 24 Hours
☐ 48 Hours
☒ 72 Hours
☐ 1 Week (Standard)
☐ Other

0 12 Hours
0 1 Week (Standard)
Siber.

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Environmental / Corporate**

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