

**ALAMO ANALYTICAL LABORATORIES, LTD.**

Main: 10526 Gulfdale • San Antonio, Texas 78216-3601 • (210) 340-8121 . Fax. (210) 340-8123

REPORT NARRATIVE

12/6/2019

Bill Davidson  
Quimica del Desierto

TEL: (512) 423-3945                      Email: [a.hees@hotmail.com](mailto:a.hees@hotmail.com)  
FAX:

RE: Charro Well in Hebberville, TX

Dear Bill Davidson:

Order No.: 1910110

Enclosed please find the analytical report for the sample/s received on 10/28/2019.

HOLDING TIMES: All samples were within prescribed holding times. The samples were analyzed in accordance with the Sample Acceptance Policy unless otherwise noted in the report.

QA/QC: All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives, except as noted in the report with data qualifiers.

SUBCONTRACTED: No analyses were subcontracted.

COMMENTS: No significant observations were made.

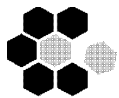
If you have any questions regarding these test results call (210) 340-8121.

Thank you,

Reddy Gosala, Ph.D  
Laboratory Director

**Report of Laboratory Analysis**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.



Analytical Results Report

Client: Quimica del Desierto

Collection Date: 10/24/2019

Lab Order: 1910110

Matrix: SOLID

Project ID:

Lab ID: 1910110-01A

Project Name: Charro Well in Hebberville, TX

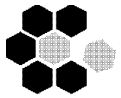
Client Sample ID: Depth 9,500 Before

Analyses	Result	Report Limit	Units	Dilution	Date Analyzed
<b>METALS, TOTAL BY ICP</b>			<b>SW6010B</b>		Analyst: <b>JOL</b>
Arsenic	< 2.5	2.5	mg/Kg	1	22-Nov-19
Barium	1250	1	mg/Kg	1	22-Nov-19
Cadmium	1.4	0.5	mg/Kg	1	22-Nov-19
Chromium	10.9	1	mg/Kg	1	22-Nov-19
Copper	35	2	mg/Kg	1	22-Nov-19
Lead	27.9	1.5	mg/Kg	1	22-Nov-19
Manganese	220	0.4	mg/Kg	1	22-Nov-19
Nickel	9.5	1	mg/Kg	1	22-Nov-19
Selenium	< 2.5	2.5	mg/Kg	1	22-Nov-19
Silver	< 0.78	0.78	mg/Kg	1	22-Nov-19
Zinc	91.9	1	mg/Kg	1	22-Nov-19
<b>MERCURY, TOTAL</b>			<b>SW7471A</b>		Analyst: <b>JOL</b>
Mercury	0.16	0.04	mg/Kg	1	21-Nov-19

Approved by:

Report of Laboratory Analysis

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Analytical Results Report

Client: Quimica del Desierto
Lab Order: 1910110
Project ID:
Project Name: Charro Well in Hebberville, TX
Client Sample ID: Depth 10,500 Before

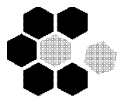
Collection Date: 10/25/2019
Matrix: SOLID
Lab ID: 1910110-02A

Table with 6 columns: Analyses, Result, Report Limit, Units, Dilution, Date Analyzed. Rows include METALS, TOTAL BY ICP (Arsenic, Barium, Cadmium, Chromium, Copper, Lead, Manganese, Nickel, Selenium, Silver, Zinc) and MERCURY, TOTAL (Mercury).

Approved by: [Signature]

Report of Laboratory Analysis

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Analytical Results Report

Client: Quimica del Desierto

Collection Date: 10/25/2019

Lab Order: 1910110

Matrix: SOLID

Project ID:

Lab ID: 1910110-03A

Project Name: Charro Well in Hebberville, TX

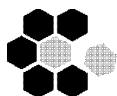
Client Sample ID: Depth 11,500 Before

Analyses	Result	Report Limit	Units	Dilution	Date Analyzed
<b>METALS, TOTAL BY ICP</b>			<b>SW6010B</b>		Analyst: <b>JOL</b>
Arsenic	< 2.5	2.5	mg/Kg	1	22-Nov-19
Barium	1280	1	mg/Kg	1	22-Nov-19
Cadmium	< 0.5	0.5	mg/Kg	1	22-Nov-19
Chromium	11.8	1	mg/Kg	1	22-Nov-19
Copper	36.4	2	mg/Kg	1	22-Nov-19
Lead	25.9	1.5	mg/Kg	1	22-Nov-19
Manganese	227	0.4	mg/Kg	1	22-Nov-19
Nickel	9.91	1	mg/Kg	1	22-Nov-19
Selenium	< 2.5	2.5	mg/Kg	1	22-Nov-19
Silver	< 0.78	0.78	mg/Kg	1	22-Nov-19
Zinc	98.5	1	mg/Kg	1	22-Nov-19
<b>MERCURY, TOTAL</b>			<b>SW7471A</b>		Analyst: <b>JOL</b>
Mercury	0.134	0.04	mg/Kg	1	21-Nov-19

Approved by:

Report of Laboratory Analysis

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Analytical Results Report

Client: Quimica del Desierto

Collection Date: 10/28/2019

Lab Order: 1910110

Matrix: SOLID

Project ID:

Lab ID: 1910110-04A

Project Name: Charro Well in Hebberville, TX

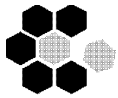
Client Sample ID: Biograss Extract

Analyses	Result	Report Limit	Units	Dilution	Date Analyzed
<b>METALS, TOTAL BY ICP</b>			<b>SW6010B</b>		Analyst: <b>JOL</b>
Arsenic	< 2.5	2.5	mg/Kg	1	27-Nov-19
Barium	< 1	1	mg/Kg	1	27-Nov-19
Cadmium	< 0.5	0.5	mg/Kg	1	27-Nov-19
Chromium	< 1	1	mg/Kg	1	27-Nov-19
Copper	< 2	2	mg/Kg	1	27-Nov-19
Lead	< 1.5	1.5	mg/Kg	1	27-Nov-19
Manganese	157	0.4	mg/Kg	1	27-Nov-19
Nickel	< 1	1	mg/Kg	1	27-Nov-19
Selenium	< 2.5	2.5	mg/Kg	1	27-Nov-19
Silver	< 0.78	0.78	mg/Kg	1	27-Nov-19
Zinc	5.9	1	mg/Kg	1	27-Nov-19
<b>MERCURY, TOTAL</b>			<b>SW7470A</b>		Analyst: <b>JOL</b>
Mercury	< 0.0002	0.0002	mg/L	1	26-Nov-19

Approved by:

Report of Laboratory Analysis

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Analytical Results Report

Client: Quimica del Desierto
Lab Order: 1910110
Project ID:
Project Name: Charro Well in Hebberville, TX
Client Sample ID: Depth 9,500 After

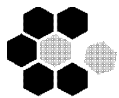
Collection Date: 10/24/2019
Matrix: SOLID
Lab ID: 1910110-05A

Table with 6 columns: Analyses, Result, Report Limit, Units, Dilution, Date Analyzed. Rows include METALS, TOTAL BY ICP (Arsenic, Barium, Cadmium, Chromium, Copper, Lead, Manganese, Nickel, Selenium, Silver, Zinc) and MERCURY, TOTAL (Mercury).

Approved by: [Signature]

Report of Laboratory Analysis

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Analytical Results Report

Client: Quimica del Desierto

Collection Date: 10/25/2019

Lab Order: 1910110

Matrix: SOLID

Project ID:

Lab ID: 1910110-06A

Project Name: Charro Well in Hebberville, TX

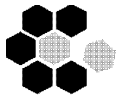
Client Sample ID: Depth 10,500 After

Analyses	Result	Report Limit	Units	Dilution	Date Analyzed
<b>METALS, TOTAL BY ICP</b>			<b>SW6010B</b>		Analyst: <b>JOL</b>
Arsenic	< 2.5	2.5	mg/Kg	1	27-Nov-19
Barium	569	1	mg/Kg	1	27-Nov-19
Cadmium	< 0.5	0.5	mg/Kg	1	27-Nov-19
Chromium	4.78	1	mg/Kg	1	27-Nov-19
Copper	3.12	2	mg/Kg	1	27-Nov-19
Lead	6.38	1.5	mg/Kg	1	27-Nov-19
Manganese	39.5	0.4	mg/Kg	1	27-Nov-19
Nickel	< 1	1	mg/Kg	1	27-Nov-19
Selenium	< 2.5	2.5	mg/Kg	1	27-Nov-19
Silver	< 0.78	0.78	mg/Kg	1	27-Nov-19
Zinc	25	1	mg/Kg	1	27-Nov-19
<b>MERCURY, TOTAL</b>			<b>SW7471A</b>		Analyst: <b>JOL</b>
Mercury	0.05	0.04	mg/Kg	1	26-Nov-19
Mercury		0.04	mg/Kg	1	26-Nov-19

Approved by:

Report of Laboratory Analysis

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Analytical Results Report

Client: Quimica del Desierto
Lab Order: 1910110
Project ID:
Project Name: Charro Well in Hebberville, TX
Client Sample ID: Depth 11,500 After

Collection Date: 10/25/2019
Matrix: SOLID
Lab ID: 1910110-07A

Table with 6 columns: Analyses, Result, Report Limit, Units, Dilution, Date Analyzed. Rows include METALS, TOTAL BY ICP (Arsenic, Barium, Cadmium, Chromium, Copper, Lead, Manganese, Nickel, Selenium, Silver, Zinc) and MERCURY, TOTAL (Mercury).

Approved by: [Signature]

Report of Laboratory Analysis

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# ALAMO ANALYTICAL LABORATORIES, LTD.

## Analytical Results Report

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 24-Oct-19  
**Preparation Date:** 22-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-01A  
**Analyst:** SUB

**Client Sample ID** Depth 9,500 Before

### Volatile Organics by GC/MS

### SW8260B

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
1,1,1,2-Tetrachloroethane	< 0.025	0.0166	0.025	5	mg/Kg	22-Nov-19	
1,1,1-Trichloroethane	< 0.025	0.0158	0.025	5	mg/Kg	22-Nov-19	
1,1,2,2-Tetrachloroethane	< 0.025	0.144	0.025	5	mg/Kg	22-Nov-19	
1,1,2-Trichloroethane	< 0.025	0.018	0.025	5	mg/Kg	22-Nov-19	
1,1-Dichloroethane	< 0.025	0.014	0.025	5	mg/Kg	22-Nov-19	
1,1-Dichloroethene	< 0.025	0.0158	0.025	5	mg/Kg	22-Nov-19	
1,1-Dichloropropene	< 0.025	0.00955	0.025	5	mg/Kg	22-Nov-19	
1,2,3-Trichlorobenzene	< 0.025	0.0126	0.025	5	mg/Kg	22-Nov-19	
1,2,3-Trichloropropane	< 0.025	0.0158	0.025	5	mg/Kg	22-Nov-19	
1,2,4-Trichlorobenzene	< 0.025	0.0107	0.025	5	mg/Kg	22-Nov-19	
1,2,4-Trimethylbenzene	530	0.012	0.025	5	mg/Kg	22-Nov-19	
1,2-Dibromo-3-chloropropane	< 0.025	0.0112	0.025	5	mg/Kg	22-Nov-19	
1,2-Dibromoethane	< 0.025	0.0096	0.025	5	mg/Kg	22-Nov-19	
1,2-Dichlorobenzene	< 0.025	0.0107	0.025	5	mg/Kg	22-Nov-19	
1,2-Dichloroethane	< 0.025	0.013	0.025	5	mg/Kg	22-Nov-19	
1,2-Dichloropropane	< 0.025	0.0116	0.025	5	mg/Kg	22-Nov-19	
1,3,5-Trimethylbenzene	199	0.0166	0.025	5	mg/Kg	22-Nov-19	
1,3-Dichlorobenzene	< 0.025	0.0118	0.025	5	mg/Kg	22-Nov-19	
1,3-Dichloropropane	< 0.025	0.0132	0.025	5	mg/Kg	22-Nov-19	
1,4-Dichlorobenzene	< 0.025	0.0118	0.025	5	mg/Kg	22-Nov-19	
2,2-Dichloropropane	< 0.025	0.0095	0.025	5	mg/Kg	22-Nov-19	
2-Butanone	< 0.05	0.0262	0.05	5	mg/Kg	22-Nov-19	
2-Chlorotoluene	< 0.025	0.018	0.025	5	mg/Kg	22-Nov-19	
2-Hexanone	< 0.05	0.00665	0.05	5	mg/Kg	22-Nov-19	
4-Chlorotoluene	< 0.025	0.0158	0.025	5	mg/Kg	22-Nov-19	
4-Isopropyltoluene	74.5	0.0154	0.025	5	mg/Kg	22-Nov-19	
4-Methyl-2-pentanone	< 0.05	0.0244	0.05	5	mg/Kg	22-Nov-19	
Acetone	< 0.05	0.0181	0.05	5	mg/Kg	22-Nov-19	
Benzene	< 0.025	0.0106	0.025	5	mg/Kg	22-Nov-19	

Approved by: 

### Report of Laboratory Analysis

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NELAP Certificate# San Antonio : T104704367-17-9



Client: Quimica del Desierto
Work Order: 1910110
Project Name: Charro Well in Hebberville, TX

Date: 06-Dec-19
Date Received: 28-Oct-19
Collection Date: 24-Oct-19
Preparation Date: 22-Nov-19
Matrix: SOLID
Lab ID: 1910110-01A
Analyst: SUB

Client Sample ID Depth 9,500 Before

Volatile Organics by GC/MS

SW8260B

Table with 8 columns: Analyte, Result, MDL, PQL, DF, Units, Date Analyzed, Qual. Lists various chemical compounds and their corresponding test results.

Approved by: [Signature]

Report of Laboratory Analysis

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Client: Quimica del Desierto
Work Order: 1910110
Project Name: Charro Well in Hebberville, TX

Date: 06-Dec-19
Date Received: 28-Oct-19
Collection Date: 24-Oct-19
Preparation Date: 22-Nov-19
Matrix: SOLID
Lab ID: 1910110-01A
Analyst: SUB

Client Sample ID Depth 9,500 Before

Volatile Organics by GC/MS SW8260B

Table with 8 columns: Analyte, Result, MDL, PQL, DF, Units, Date Analyzed, Qual. Rows include tert-Butylbenzene, Tetrachloroethene, Toluene, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, and Vinyl chloride.

Surrogate Recoveries

Table with 3 columns: Analyte, Recovery, Control Limits. Rows include 4-Bromofluorobenzene, Dibromofluoromethane, and Toluene-d8.

For Surrogates: 0 = Dil. Out

Approved by:

Handwritten signature

Report of Laboratory Analysis

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ALAMO ANALYTICAL LABORATORIES, LTD.

Analytical Results Report

Client: Quimica del Desierto
Work Order: 1910110
Project Name: Charro Well in Hebberville, TX

Date: 06-Dec-19
Date Received: 28-Oct-19
Collection Date: 25-Oct-19
Preparation Date: 22-Nov-19
Matrix: SOLID
Lab ID: 1910110-02A
Analyst: SUB

Client Sample ID Depth 10,500 Before

Volatile Organics by GC/MS

SW8260B

Table with 8 columns: Analyte, Result, MDL, PQL, DF, Units, Date Analyzed, Qual. Lists various chemical compounds and their corresponding analytical results.

Approved by: [Signature]

Report of Laboratory Analysis

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NELAP Certificate# San Antonio : T104704367-17-9



**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Analytical Results Report**

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 25-Oct-19  
**Preparation Date:** 22-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-02A  
**Analyst:** SUB

**Client Sample ID** Depth 10,500 Before

**Volatile Organics by GC/MS**

**SW8260B**

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
Bromobenzene	< 0.025	0.0154	0.025	5	mg/Kg	22-Nov-19	
Bromochloromethane	< 0.025	0.0156	0.025	5	mg/Kg	22-Nov-19	
Bromodichloromethane	< 0.025	0.0138	0.025	5	mg/Kg	22-Nov-19	
Bromoform	< 0.025	0.0137	0.025	5	mg/Kg	22-Nov-19	
Bromomethane	< 0.025	0.0155	0.025	5	mg/Kg	22-Nov-19	
Carbon disulfide	< 0.025	0.0156	0.025	5	mg/Kg	22-Nov-19	
Carbon tetrachloride	< 0.025	0.0166	0.025	5	mg/Kg	22-Nov-19	
Chlorobenzene	< 0.025	0.0154	0.025	5	mg/Kg	22-Nov-19	
Chloroethane	< 0.025	0.016	0.025	5	mg/Kg	22-Nov-19	
Chloroform	< 0.025	0.0158	0.025	5	mg/Kg	22-Nov-19	
Chloromethane	< 0.025	0.0072	0.025	5	mg/Kg	22-Nov-19	
cis-1,2-Dichloroethene	< 0.025	0.013	0.025	5	mg/Kg	22-Nov-19	
cis-1,3-Dichloropropene	< 0.025	0.0132	0.025	5	mg/Kg	22-Nov-19	
Dibromochloromethane	< 0.025	0.0112	0.025	5	mg/Kg	22-Nov-19	
Dibromomethane	< 0.025	0.0156	0.025	5	mg/Kg	22-Nov-19	
Dichlorodifluoromethane	< 0.025	0.0166	0.025	5	mg/Kg	22-Nov-19	
Ethylbenzene	7	0.0157	0.025	5	mg/Kg	22-Nov-19	
Hexachlorobutadiene	< 0.025	0.0137	0.025	5	mg/Kg	22-Nov-19	
Iodomethane	< 0.025	0.0098	0.025	5	mg/Kg	22-Nov-19	
Isopropylbenzene	4.38	0.012	0.025	5	mg/Kg	22-Nov-19	
m,p-Xylenes	396	0.0296	0.05	5	mg/Kg	22-Nov-19	
Methyl tert-butyl ether	< 0.025	0.0141	0.025	5	mg/Kg	22-Nov-19	
Methylene chloride	< 0.025	0.019	0.025	5	mg/Kg	22-Nov-19	
n-Butylbenzene	6.6	0.0194	0.025	5	mg/Kg	22-Nov-19	
n-Propylbenzene	5.5	0.0166	0.025	5	mg/Kg	22-Nov-19	
Naphthalene	< 0.075	0.0131	0.075	5	mg/Kg	22-Nov-19	
o-Xylene	180	0.0145	0.025	5	mg/Kg	22-Nov-19	
sec-Butylbenzene	< 0.025	0.0164	0.025	5	mg/Kg	22-Nov-19	
Styrene	10	0.0102	0.025	5	mg/Kg	22-Nov-19	

**Approved by:**

**Report of Laboratory Analysis**

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NELAP Certificate# San Antonio : T104704367-17-9



**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Analytical Results Report**

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 25-Oct-19  
**Preparation Date:** 22-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-02A  
**Analyst:** SUB

**Client Sample ID** Depth 10,500 Before

**Volatile Organics by GC/MS**

**SW8260B**

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
tert-Butylbenzene	< 0.025	0.0166	0.025	5	mg/Kg	22-Nov-19	
Tetrachloroethene	< 0.025	0.0121	0.025	5	mg/Kg	22-Nov-19	
Toluene	102	0.0116	0.025	5	mg/Kg	22-Nov-19	
trans-1,2-Dichloroethene	< 0.025	0.012	0.025	5	mg/Kg	22-Nov-19	
trans-1,3-Dichloropropene	< 0.05	0.0181	0.05	5	mg/Kg	22-Nov-19	
Trichloroethene	< 0.025	0.0098	0.025	5	mg/Kg	22-Nov-19	
Trichlorofluoromethane	< 0.025	0.0171	0.025	5	mg/Kg	22-Nov-19	
Vinyl chloride	< 0.025	0.006	0.025	5	mg/Kg	22-Nov-19	

**Surrogate Recoveries**

Analyte	Recovery	Control Limits
4-Bromofluorobenzene	99%	38—164
Dibromofluoromethane	92%	43—160
Toluene-d8	88%	44—163

For Surrogates: 0 = Dil. Out

Approved by:

**Report of Laboratory Analysis**

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NELAP Certificate# San Antonio : T104704367-17-9



**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Analytical Results Report**

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 25-Oct-19  
**Preparation Date:** 22-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-03A  
**Analyst:** SUB

**Client Sample ID** Depth 11,500 Before

**Volatile Organics by GC/MS**

**SW8260B**

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
1,1,1,2-Tetrachloroethane	< 0.025	0.0166	0.025	5	mg/Kg	22-Nov-19	
1,1,1-Trichloroethane	< 0.025	0.0158	0.025	5	mg/Kg	22-Nov-19	
1,1,2,2-Tetrachloroethane	< 0.025	0.144	0.025	5	mg/Kg	22-Nov-19	
1,1,2-Trichloroethane	< 0.025	0.018	0.025	5	mg/Kg	22-Nov-19	
1,1-Dichloroethane	< 0.025	0.014	0.025	5	mg/Kg	22-Nov-19	
1,1-Dichloroethene	< 0.025	0.0158	0.025	5	mg/Kg	22-Nov-19	
1,1-Dichloropropene	< 0.025	0.00955	0.025	5	mg/Kg	22-Nov-19	
1,2,3-Trichlorobenzene	< 0.025	0.0126	0.025	5	mg/Kg	22-Nov-19	
1,2,3-Trichloropropane	< 0.025	0.0158	0.025	5	mg/Kg	22-Nov-19	
1,2,4-Trichlorobenzene	< 0.025	0.0107	0.025	5	mg/Kg	22-Nov-19	
1,2,4-Trimethylbenzene	665	0.012	0.025	5	mg/Kg	22-Nov-19	
1,2-Dibromo-3-chloropropane	< 0.025	0.0112	0.025	5	mg/Kg	22-Nov-19	
1,2-Dibromoethane	< 0.025	0.0096	0.025	5	mg/Kg	22-Nov-19	
1,2-Dichlorobenzene	< 0.025	0.0107	0.025	5	mg/Kg	22-Nov-19	
1,2-Dichloroethane	< 0.025	0.013	0.025	5	mg/Kg	22-Nov-19	
1,2-Dichloropropane	< 0.025	0.0116	0.025	5	mg/Kg	22-Nov-19	
1,3,5-Trimethylbenzene	246	0.0166	0.025	5	mg/Kg	22-Nov-19	
1,3-Dichlorobenzene	< 0.025	0.0118	0.025	5	mg/Kg	22-Nov-19	
1,3-Dichloropropane	< 0.025	0.0132	0.025	5	mg/Kg	22-Nov-19	
1,4-Dichlorobenzene	< 0.025	0.0118	0.025	5	mg/Kg	22-Nov-19	
2,2-Dichloropropane	< 0.025	0.0095	0.025	5	mg/Kg	22-Nov-19	
2-Butanone	< 0.05	0.0262	0.05	5	mg/Kg	22-Nov-19	
2-Chlorotoluene	< 0.025	0.018	0.025	5	mg/Kg	22-Nov-19	
2-Hexanone	< 0.05	0.00665	0.05	5	mg/Kg	22-Nov-19	
4-Chlorotoluene	< 0.025	0.0158	0.025	5	mg/Kg	22-Nov-19	
4-Isopropyltoluene	54.5	0.0154	0.025	5	mg/Kg	22-Nov-19	
4-Methyl-2-pentanone	< 0.05	0.0244	0.05	5	mg/Kg	22-Nov-19	
Acetone	< 0.05	0.0181	0.05	5	mg/Kg	22-Nov-19	
Benzene	< 0.025	0.0106	0.025	5	mg/Kg	22-Nov-19	

**Approved by:**

**Report of Laboratory Analysis**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

NELAP Certificate# San Antonio : T104704367-17-9



**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Analytical Results Report**

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 25-Oct-19  
**Preparation Date:** 22-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-03A  
**Analyst:** SUB

**Client Sample ID** Depth 11,500 Before

**Volatile Organics by GC/MS**

**SW8260B**

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
Bromobenzene	< 0.025	0.0154	0.025	5	mg/Kg	22-Nov-19	
Bromochloromethane	< 0.025	0.0156	0.025	5	mg/Kg	22-Nov-19	
Bromodichloromethane	< 0.025	0.0138	0.025	5	mg/Kg	22-Nov-19	
Bromoform	< 0.025	0.0137	0.025	5	mg/Kg	22-Nov-19	
Bromomethane	< 0.025	0.0155	0.025	5	mg/Kg	22-Nov-19	
Carbon disulfide	< 0.025	0.0156	0.025	5	mg/Kg	22-Nov-19	
Carbon tetrachloride	< 0.025	0.0166	0.025	5	mg/Kg	22-Nov-19	
Chlorobenzene	< 0.025	0.0154	0.025	5	mg/Kg	22-Nov-19	
Chloroethane	< 0.025	0.016	0.025	5	mg/Kg	22-Nov-19	
Chloroform	< 0.025	0.0158	0.025	5	mg/Kg	22-Nov-19	
Chloromethane	< 0.025	0.0072	0.025	5	mg/Kg	22-Nov-19	
cis-1,2-Dichloroethene	< 0.025	0.013	0.025	5	mg/Kg	22-Nov-19	
cis-1,3-Dichloropropene	< 0.025	0.0132	0.025	5	mg/Kg	22-Nov-19	
Dibromochloromethane	< 0.025	0.0112	0.025	5	mg/Kg	22-Nov-19	
Dibromomethane	< 0.025	0.0156	0.025	5	mg/Kg	22-Nov-19	
Dichlorodifluoromethane	< 0.025	0.0166	0.025	5	mg/Kg	22-Nov-19	
Ethylbenzene	22	0.0157	0.025	5	mg/Kg	22-Nov-19	
Hexachlorobutadiene	< 0.025	0.0137	0.025	5	mg/Kg	22-Nov-19	
Iodomethane	< 0.025	0.0098	0.025	5	mg/Kg	22-Nov-19	
Isopropylbenzene	27.3	0.012	0.025	5	mg/Kg	22-Nov-19	
m,p-Xylenes	125	0.0296	0.05	5	mg/Kg	22-Nov-19	
Methyl tert-butyl ether	< 0.025	0.0141	0.025	5	mg/Kg	22-Nov-19	
Methylene chloride	< 0.025	0.019	0.025	5	mg/Kg	22-Nov-19	
n-Butylbenzene	112	0.0194	0.025	5	mg/Kg	22-Nov-19	
n-Propylbenzene	65.5	0.0166	0.025	5	mg/Kg	22-Nov-19	
Naphthalene	< 0.075	0.0131	0.075	5	mg/Kg	22-Nov-19	
o-Xylene	1.25	0.0145	0.025	5	mg/Kg	22-Nov-19	
sec-Butylbenzene	69.5	0.0164	0.025	5	mg/Kg	22-Nov-19	
Styrene	< 0.025	0.0102	0.025	5	mg/Kg	22-Nov-19	

**Approved by:**

**Report of Laboratory Analysis**

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NELAP Certificate# San Antonio : T104704367-17-9





**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Analytical Results Report**

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 25-Oct-19  
**Preparation Date:** 22-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-03A  
**Analyst:** SUB

**Client Sample ID** Depth 11,500 Before

**Volatile Organics by GC/MS**

**SW8260B**

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
tert-Butylbenzene	< 0.025	0.0166	0.025	5	mg/Kg	22-Nov-19	
Tetrachloroethene	< 0.025	0.0121	0.025	5	mg/Kg	22-Nov-19	
Toluene	< 0.025	0.0116	0.025	5	mg/Kg	22-Nov-19	
trans-1,2-Dichloroethene	< 0.025	0.012	0.025	5	mg/Kg	22-Nov-19	
trans-1,3-Dichloropropene	< 0.05	0.0181	0.05	5	mg/Kg	22-Nov-19	
Trichloroethene	< 0.025	0.0098	0.025	5	mg/Kg	22-Nov-19	
Trichlorofluoromethane	< 0.025	0.0171	0.025	5	mg/Kg	22-Nov-19	
Vinyl chloride	< 0.025	0.006	0.025	5	mg/Kg	22-Nov-19	

**Surrogate Recoveries**

Analyte	Recovery	Control Limits
4-Bromofluorobenzene	93%	38—164
Dibromofluoromethane	89%	43—160
Toluene-d8	106%	44—163

For Surrogates: 0 = Dil. Out

Approved by:

**Report of Laboratory Analysis**

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NELAP Certificate# San Antonio : T104704367-17-9



Client: Quimica del Desierto
Work Order: 1910110
Project Name: Charro Well in Hebberville, TX

Date: 06-Dec-19
Date Received: 28-Oct-19
Collection Date: 28-Oct-19
Preparation Date: 22-Nov-19
Matrix: SOLID
Lab ID: 1910110-04A
Analyst: SUB

Client Sample ID Bioglass Extract

Volatile Organics by GC/MS

SW8260B

Table with 8 columns: Analyte, Result, MDL, PQL, DF, Units, Date Analyzed, Qual. Lists various chemical compounds and their detection results.

Approved by: [Signature]

Report of Laboratory Analysis

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Client: Quimica del Desierto
Work Order: 1910110
Project Name: Charro Well in Hebberville, TX

Date: 06-Dec-19
Date Received: 28-Oct-19
Collection Date: 28-Oct-19
Preparation Date: 22-Nov-19
Matrix: SOLID
Lab ID: 1910110-04A
Analyst: SUB

Client Sample ID Bioglass Extract

Volatile Organics by GC/MS

SW8260B

Table with 8 columns: Analyte, Result, MDL, PQL, DF, Units, Date Analyzed, Qual. Lists various chemical compounds and their corresponding test results.

Approved by: [Signature]

Report of Laboratory Analysis

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Client: Quimica del Desierto
Work Order: 1910110
Project Name: Charro Well in Hebberville, TX

Date: 06-Dec-19
Date Received: 28-Oct-19
Collection Date: 28-Oct-19
Preparation Date: 22-Nov-19
Matrix: SOLID
Lab ID: 1910110-04A
Analyst: SUB

Client Sample ID Biograss Extract

Volatile Organics by GC/MS SW8260B

Table with 8 columns: Analyte, Result, MDL, PQL, DF, Units, Date Analyzed, Qual. Rows include tert-Butylbenzene, Tetrachloroethene, Toluene, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, and Vinyl chloride.

Surrogate Recoveries

Table with 3 columns: Analyte, Recovery, Control Limits. Rows include 4-Bromofluorobenzene, Dibromofluoromethane, and Toluene-d8.

For Surrogates: 0 = Dil. Out

Approved by:

Handwritten signature

Report of Laboratory Analysis

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.



Client: Quimica del Desierto
Work Order: 1910110
Project Name: Charro Well in Hebberville, TX

Date: 06-Dec-19
Date Received: 28-Oct-19
Collection Date: 24-Oct-19
Preparation Date: 22-Nov-19
Matrix: SOLID
Lab ID: 1910110-05A
Analyst: SUB

Client Sample ID Depth 9,500 After

Volatile Organics by GC/MS

SW8260B

Table with 8 columns: Analyte, Result, MDL, PQL, DF, Units, Date Analyzed, Qual. Rows list various chemical compounds like 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, etc., with their respective results and detection limits.

Approved by: [Signature]

Report of Laboratory Analysis

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.



**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Analytical Results Report**

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 24-Oct-19  
**Preparation Date:** 22-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-05A  
**Analyst:** SUB

**Client Sample ID** Depth 9,500 After

**Volatile Organics by GC/MS**

**SW8260B**

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
Bromobenzene	< 0.05	0.0307	0.05	10	mg/Kg	22-Nov-19	
Bromochloromethane	< 0.05	0.0313	0.05	10	mg/Kg	22-Nov-19	
Bromodichloromethane	< 0.05	0.0275	0.05	10	mg/Kg	22-Nov-19	
Bromoform	< 0.05	0.0274	0.05	10	mg/Kg	22-Nov-19	
Bromomethane	< 0.05	0.031	0.05	10	mg/Kg	22-Nov-19	
Carbon disulfide	< 0.05	0.0312	0.05	10	mg/Kg	22-Nov-19	
Carbon tetrachloride	< 0.05	0.0332	0.05	10	mg/Kg	22-Nov-19	
Chlorobenzene	< 0.05	0.0308	0.05	10	mg/Kg	22-Nov-19	
Chloroethane	< 0.05	0.0321	0.05	10	mg/Kg	22-Nov-19	
Chloroform	< 0.05	0.0315	0.05	10	mg/Kg	22-Nov-19	
Chloromethane	< 0.05	0.0144	0.05	10	mg/Kg	22-Nov-19	
cis-1,2-Dichloroethene	< 0.05	0.0261	0.05	10	mg/Kg	22-Nov-19	
cis-1,3-Dichloropropene	< 0.05	0.0265	0.05	10	mg/Kg	22-Nov-19	
Dibromochloromethane	< 0.05	0.0225	0.05	10	mg/Kg	22-Nov-19	
Dibromomethane	< 0.05	0.0312	0.05	10	mg/Kg	22-Nov-19	
Dichlorodifluoromethane	< 0.05	0.0332	0.05	10	mg/Kg	22-Nov-19	
Ethylbenzene	31	0.0314	0.05	10	mg/Kg	22-Nov-19	
Hexachlorobutadiene	< 0.05	0.0274	0.05	10	mg/Kg	22-Nov-19	
Iodomethane	< 0.05	0.0196	0.05	10	mg/Kg	22-Nov-19	
Isopropylbenzene	22	0.0241	0.05	10	mg/Kg	22-Nov-19	
m,p-Xylenes	124	0.0592	0.1	10	mg/Kg	22-Nov-19	
Methyl tert-butyl ether	< 0.05	0.0282	0.05	10	mg/Kg	22-Nov-19	
Methylene chloride	< 0.05	0.0381	0.05	10	mg/Kg	22-Nov-19	
n-Butylbenzene	29	0.0388	0.05	10	mg/Kg	22-Nov-19	
n-Propylbenzene	< 0.05	0.0331	0.05	10	mg/Kg	22-Nov-19	
Naphthalene	< 0.15	0.0262	0.15	10	mg/Kg	22-Nov-19	
o-Xylene	64	0.029	0.05	10	mg/Kg	22-Nov-19	
sec-Butylbenzene	22	0.0328	0.05	10	mg/Kg	22-Nov-19	
Styrene	< 0.05	0.0203	0.05	10	mg/Kg	22-Nov-19	

**Approved by:**

**Report of Laboratory Analysis**

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NELAP Certificate# San Antonio : T104704367-17-9



**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Analytical Results Report**

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 24-Oct-19  
**Preparation Date:** 22-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-05A  
**Analyst:** SUB

**Client Sample ID** Depth 9,500 After

**Volatile Organics by GC/MS**

**SW8260B**

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
tert-Butylbenzene	< 0.05	0.0331	0.05	10	mg/Kg	22-Nov-19	
Tetrachloroethene	< 0.05	0.0242	0.05	10	mg/Kg	22-Nov-19	
Toluene	< 0.05	0.0231	0.05	10	mg/Kg	22-Nov-19	
trans-1,2-Dichloroethene	< 0.05	0.0241	0.05	10	mg/Kg	22-Nov-19	
trans-1,3-Dichloropropene	< 0.1	0.0362	0.1	10	mg/Kg	22-Nov-19	
Trichloroethene	< 0.05	0.0196	0.05	10	mg/Kg	22-Nov-19	
Trichlorofluoromethane	< 0.05	0.0342	0.05	10	mg/Kg	22-Nov-19	
Vinyl chloride	< 0.05	0.012	0.05	10	mg/Kg	22-Nov-19	

**Surrogate Recoveries**

Analyte	Recovery	Control Limits
4-Bromofluorobenzene	93%	38—164
Dibromofluoromethane	101%	43—160
Toluene-d8	98%	44—163

For Surrogates: 0 = Dil. Out

Approved by:

**Report of Laboratory Analysis**

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NELAP Certificate# San Antonio : T104704367-17-9



**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Analytical Results Report**

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 25-Oct-19  
**Preparation Date:** 22-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-06A  
**Analyst:** SUB

**Client Sample ID** Depth 10,500 After

**Volatile Organics by GC/MS**

**SW8260B**

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
1,1,1,2-Tetrachloroethane	< 0.05	0.0331	0.05	10	mg/Kg	22-Nov-19	
1,1,1-Trichloroethane	< 0.05	0.0317	0.05	10	mg/Kg	22-Nov-19	
1,1,2,2-Tetrachloroethane	< 0.05	0.288	0.05	10	mg/Kg	22-Nov-19	
1,1,2-Trichloroethane	< 0.05	0.036	0.05	10	mg/Kg	22-Nov-19	
1,1-Dichloroethane	< 0.05	0.028	0.05	10	mg/Kg	22-Nov-19	
1,1-Dichloroethene	< 0.05	0.0317	0.05	10	mg/Kg	22-Nov-19	
1,1-Dichloropropene	< 0.05	0.0191	0.05	10	mg/Kg	22-Nov-19	
1,2,3-Trichlorobenzene	< 0.05	0.0252	0.05	10	mg/Kg	22-Nov-19	
1,2,3-Trichloropropane	< 0.05	0.0316	0.05	10	mg/Kg	22-Nov-19	
1,2,4-Trichlorobenzene	< 0.05	0.0214	0.05	10	mg/Kg	22-Nov-19	
1,2,4-Trimethylbenzene	284	0.0241	0.05	10	mg/Kg	22-Nov-19	
1,2-Dibromo-3-chloropropane	< 0.05	0.0223	0.05	10	mg/Kg	22-Nov-19	
1,2-Dibromoethane	< 0.05	0.0192	0.05	10	mg/Kg	22-Nov-19	
1,2-Dichlorobenzene	< 0.05	0.0214	0.05	10	mg/Kg	22-Nov-19	
1,2-Dichloroethane	< 0.05	0.0261	0.05	10	mg/Kg	22-Nov-19	
1,2-Dichloropropane	< 0.05	0.0232	0.05	10	mg/Kg	22-Nov-19	
1,3,5-Trimethylbenzene	162	0.0331	0.05	10	mg/Kg	22-Nov-19	
1,3-Dichlorobenzene	< 0.05	0.0237	0.05	10	mg/Kg	22-Nov-19	
1,3-Dichloropropane	< 0.05	0.0263	0.05	10	mg/Kg	22-Nov-19	
1,4-Dichlorobenzene	< 0.05	0.0236	0.05	10	mg/Kg	22-Nov-19	
2,2-Dichloropropane	< 0.05	0.019	0.05	10	mg/Kg	22-Nov-19	
2-Butanone	< 0.1	0.0523	0.1	10	mg/Kg	22-Nov-19	
2-Chlorotoluene	< 0.05	0.036	0.05	10	mg/Kg	22-Nov-19	
2-Hexanone	< 0.1	0.0133	0.1	10	mg/Kg	22-Nov-19	
4-Chlorotoluene	< 0.05	0.0315	0.05	10	mg/Kg	22-Nov-19	
4-Isopropyltoluene	< 0.05	0.0307	0.05	10	mg/Kg	22-Nov-19	
4-Methyl-2-pentanone	< 0.1	0.0489	0.1	10	mg/Kg	22-Nov-19	
Acetone	< 0.1	0.0362	0.1	10	mg/Kg	22-Nov-19	
Benzene	< 0.05	0.0211	0.05	10	mg/Kg	22-Nov-19	

**Approved by:**

**Report of Laboratory Analysis**

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NELAP Certificate# San Antonio : T104704367-17-9





**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Analytical Results Report**

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 25-Oct-19  
**Preparation Date:** 22-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-06A  
**Analyst:** SUB

**Client Sample ID** Depth 10,500 After

**Volatile Organics by GC/MS**

**SW8260B**

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
Bromobenzene	< 0.05	0.0307	0.05	10	mg/Kg	22-Nov-19	
Bromochloromethane	< 0.05	0.0313	0.05	10	mg/Kg	22-Nov-19	
Bromodichloromethane	< 0.05	0.0275	0.05	10	mg/Kg	22-Nov-19	
Bromoform	< 0.05	0.0274	0.05	10	mg/Kg	22-Nov-19	
Bromomethane	< 0.05	0.031	0.05	10	mg/Kg	22-Nov-19	
Carbon disulfide	< 0.05	0.0312	0.05	10	mg/Kg	22-Nov-19	
Carbon tetrachloride	< 0.05	0.0332	0.05	10	mg/Kg	22-Nov-19	
Chlorobenzene	< 0.05	0.0308	0.05	10	mg/Kg	22-Nov-19	
Chloroethane	< 0.05	0.0321	0.05	10	mg/Kg	22-Nov-19	
Chloroform	< 0.05	0.0315	0.05	10	mg/Kg	22-Nov-19	
Chloromethane	< 0.05	0.0144	0.05	10	mg/Kg	22-Nov-19	
cis-1,2-Dichloroethene	< 0.05	0.0261	0.05	10	mg/Kg	22-Nov-19	
cis-1,3-Dichloropropene	< 0.05	0.0265	0.05	10	mg/Kg	22-Nov-19	
Dibromochloromethane	< 0.05	0.0225	0.05	10	mg/Kg	22-Nov-19	
Dibromomethane	< 0.05	0.0312	0.05	10	mg/Kg	22-Nov-19	
Dichlorodifluoromethane	< 0.05	0.0332	0.05	10	mg/Kg	22-Nov-19	
Ethylbenzene	< 0.05	0.0314	0.05	10	mg/Kg	22-Nov-19	
Hexachlorobutadiene	< 0.05	0.0274	0.05	10	mg/Kg	22-Nov-19	
Iodomethane	< 0.05	0.0196	0.05	10	mg/Kg	22-Nov-19	
Isopropylbenzene	< 0.05	0.0241	0.05	10	mg/Kg	22-Nov-19	
m,p-Xylenes	146	0.0592	0.1	10	mg/Kg	22-Nov-19	
Methyl tert-butyl ether	< 0.05	0.0282	0.05	10	mg/Kg	22-Nov-19	
Methylene chloride	< 0.05	0.0381	0.05	10	mg/Kg	22-Nov-19	
n-Butylbenzene	< 0.05	0.0388	0.05	10	mg/Kg	22-Nov-19	
n-Propylbenzene	< 0.05	0.0331	0.05	10	mg/Kg	22-Nov-19	
Naphthalene	< 0.15	0.0262	0.15	10	mg/Kg	22-Nov-19	
o-Xylene	86	0.029	0.05	10	mg/Kg	22-Nov-19	
sec-Butylbenzene	< 0.05	0.0328	0.05	10	mg/Kg	22-Nov-19	
Styrene	20	0.0203	0.05	10	mg/Kg	22-Nov-19	

**Approved by:**

**Report of Laboratory Analysis**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

NELAP Certificate# San Antonio : T104704367-17-9



**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Analytical Results Report**

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 25-Oct-19  
**Preparation Date:** 22-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-06A  
**Analyst:** SUB

**Client Sample ID** Depth 10,500 After

**Volatile Organics by GC/MS**

**SW8260B**

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
tert-Butylbenzene	< 0.05	0.0331	0.05	10	mg/Kg	22-Nov-19	
Tetrachloroethene	< 0.05	0.0242	0.05	10	mg/Kg	22-Nov-19	
Toluene	24	0.0231	0.05	10	mg/Kg	22-Nov-19	
trans-1,2-Dichloroethene	< 0.05	0.0241	0.05	10	mg/Kg	22-Nov-19	
trans-1,3-Dichloropropene	< 0.1	0.0362	0.1	10	mg/Kg	22-Nov-19	
Trichloroethene	< 0.05	0.0196	0.05	10	mg/Kg	22-Nov-19	
Trichlorofluoromethane	< 0.05	0.0342	0.05	10	mg/Kg	22-Nov-19	
Vinyl chloride	< 0.05	0.012	0.05	10	mg/Kg	22-Nov-19	

**Surrogate Recoveries**

Analyte	Recovery	Control Limits
4-Bromofluorobenzene	93%	38—164
Dibromofluoromethane	79%	43—160
Toluene-d8	97%	44—163

For Surrogates: 0 = Dil. Out

Approved by:

**Report of Laboratory Analysis**

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NELAP Certificate# San Antonio : T104704367-17-9



Client: Quimica del Desierto
Work Order: 1910110
Project Name: Charro Well in Hebberville, TX

Date: 06-Dec-19
Date Received: 28-Oct-19
Collection Date: 25-Oct-19
Preparation Date: 22-Nov-19
Matrix: SOLID
Lab ID: 1910110-07A
Analyst: SUB

Client Sample ID Depth 11,500 After

Volatile Organics by GC/MS

SW8260B

Table with 8 columns: Analyte, Result, MDL, PQL, DF, Units, Date Analyzed, Qual. Rows list various chemical compounds and their corresponding test results.

Approved by: [Signature]

Report of Laboratory Analysis

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# ALAMO ANALYTICAL LABORATORIES, LTD.

## Analytical Results Report

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 25-Oct-19  
**Preparation Date:** 22-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-07A  
**Analyst:** SUB

**Client Sample ID** Depth 11,500 After

### Volatile Organics by GC/MS

### SW8260B

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
Bromobenzene	< 0.05	0.0307	0.05	10	mg/Kg	22-Nov-19	
Bromochloromethane	< 0.05	0.0313	0.05	10	mg/Kg	22-Nov-19	
Bromodichloromethane	< 0.05	0.0275	0.05	10	mg/Kg	22-Nov-19	
Bromoform	< 0.05	0.0274	0.05	10	mg/Kg	22-Nov-19	
Bromomethane	< 0.05	0.031	0.05	10	mg/Kg	22-Nov-19	
Carbon disulfide	< 0.05	0.0312	0.05	10	mg/Kg	22-Nov-19	
Carbon tetrachloride	< 0.05	0.0332	0.05	10	mg/Kg	22-Nov-19	
Chlorobenzene	< 0.05	0.0308	0.05	10	mg/Kg	22-Nov-19	
Chloroethane	< 0.05	0.0321	0.05	10	mg/Kg	22-Nov-19	
Chloroform	< 0.05	0.0315	0.05	10	mg/Kg	22-Nov-19	
Chloromethane	< 0.05	0.0144	0.05	10	mg/Kg	22-Nov-19	
cis-1,2-Dichloroethene	< 0.05	0.0261	0.05	10	mg/Kg	22-Nov-19	
cis-1,3-Dichloropropene	< 0.05	0.0265	0.05	10	mg/Kg	22-Nov-19	
Dibromochloromethane	< 0.05	0.0225	0.05	10	mg/Kg	22-Nov-19	
Dibromomethane	< 0.05	0.0312	0.05	10	mg/Kg	22-Nov-19	
Dichlorodifluoromethane	< 0.05	0.0332	0.05	10	mg/Kg	22-Nov-19	
Ethylbenzene	9	0.0314	0.05	10	mg/Kg	22-Nov-19	
Hexachlorobutadiene	< 0.05	0.0274	0.05	10	mg/Kg	22-Nov-19	
Iodomethane	< 0.05	0.0196	0.05	10	mg/Kg	22-Nov-19	
Isopropylbenzene	16	0.0241	0.05	10	mg/Kg	22-Nov-19	
m,p-Xylenes	49	0.0592	0.1	10	mg/Kg	22-Nov-19	
Methyl tert-butyl ether	< 0.05	0.0282	0.05	10	mg/Kg	22-Nov-19	
Methylene chloride	< 0.05	0.0381	0.05	10	mg/Kg	22-Nov-19	
n-Butylbenzene	73	0.0388	0.05	10	mg/Kg	22-Nov-19	
n-Propylbenzene	28	0.0331	0.05	10	mg/Kg	22-Nov-19	
Naphthalene	< 0.15	0.0262	0.15	10	mg/Kg	22-Nov-19	
o-Xylene	< 0.05	0.029	0.05	10	mg/Kg	22-Nov-19	
sec-Butylbenzene	37	0.0328	0.05	10	mg/Kg	22-Nov-19	
Styrene	< 0.05	0.0203	0.05	10	mg/Kg	22-Nov-19	

**Approved by:**

### Report of Laboratory Analysis

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NELAP Certificate# San Antonio : T104704367-17-9



Client: Quimica del Desierto
Work Order: 1910110
Project Name: Charro Well in Hebberville, TX

Date: 06-Dec-19
Date Received: 28-Oct-19
Collection Date: 25-Oct-19
Preparation Date: 22-Nov-19
Matrix: SOLID
Lab ID: 1910110-07A
Analyst: SUB

Client Sample ID Depth 11,500 After

Volatile Organics by GC/MS

SW8260B

Table with 8 columns: Analyte, Result, MDL, PQL, DF, Units, Date Analyzed, Qual. Rows include tert-Butylbenzene, Tetrachloroethene, Toluene, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride.

Surrogate Recoveries

Table with 3 columns: Analyte, Recovery, Control Limits. Rows include 4-Bromofluorobenzene, Dibromofluoromethane, Toluene-d8.

For Surrogates: 0 = Dil. Out

Approved by:

Handwritten signature

Report of Laboratory Analysis

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# ALAMO ANALYTICAL LABORATORIES, LTD.

## Analytical Results Report

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 24-Oct-19  
**Preparation Date:** 29-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-01A  
**Analyst:** SUB

**Client Sample ID** Depth 9,500 Before

### Semi-volatile Organics by GC/MS

### SW8270C

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
1,2,4-Trichlorobenzene	< 0.33	0.0765	0.33	1	mg/Kg	30-Nov-19	
1,2-Dichlorobenzene	< 0.33	0.0903	0.33	1	mg/Kg	30-Nov-19	
1,3-Dichlorobenzene	< 0.33	0.0926	0.33	1	mg/Kg	30-Nov-19	
1,4-Dichlorobenzene	< 0.33	0.0897	0.33	1	mg/Kg	30-Nov-19	
2,4,5-Trichlorophenol	< 0.33	0.12	0.33	1	mg/Kg	30-Nov-19	
2,4,6-Trichlorophenol	< 0.33	0.114	0.33	1	mg/Kg	30-Nov-19	
2,4-Dichlorophenol	< 0.33	0.0867	0.33	1	mg/Kg	30-Nov-19	
2,4-Dimethylphenol	< 0.33	0.174	0.33	1	mg/Kg	30-Nov-19	
2,4-Dinitrophenol	< 0.33	0.0937	0.33	1	mg/Kg	30-Nov-19	
2,4-Dinitrotoluene	< 0.33	0.114	0.33	1	mg/Kg	30-Nov-19	
2,6-Dichlorophenol	< 0.33	0.0739	0.33	1	mg/Kg	30-Nov-19	
2,6-Dinitrotoluene	< 0.33	0.0834	0.33	1	mg/Kg	30-Nov-19	
2-Chloronaphthalene	< 0.33	0.586	0.33	1	mg/Kg	30-Nov-19	
2-Chlorophenol	< 0.33	0.122	0.33	1	mg/Kg	30-Nov-19	
2-Methylnaphthalene	20	0.043	0.33	1	mg/Kg	30-Nov-19	
2-Methylphenol	< 0.33	0.173	0.33	1	mg/Kg	30-Nov-19	
2-Nitrophenol	< 0.33	0.218	0.33	1	mg/Kg	30-Nov-19	
4,6-Dinitro-2-methylphenol	< 0.33	0.0727	0.33	1	mg/Kg	30-Nov-19	
4-Bromophenyl phenyl ether	< 0.33	0.103	0.33	1	mg/Kg	30-Nov-19	
4-Chloro-3-methylphenol	< 0.33	0.171	0.33	1	mg/Kg	30-Nov-19	
4-Chloroaniline	< 0.33	0.0811	0.33	1	mg/Kg	30-Nov-19	
4-Chlorophenyl phenyl ether	< 0.33	0.0584	0.33	1	mg/Kg	30-Nov-19	
4-Methylphenol	< 0.33	0.24	0.33	1	mg/Kg	30-Nov-19	
4-Nitrophenol	< 0.33	0.0589	0.33	1	mg/Kg	30-Nov-19	
Acenaphthene	38.8	0.0839	0.33	1	mg/Kg	30-Nov-19	
Acenaphthylene	3.8	0.0913	0.33	1	mg/Kg	30-Nov-19	
Anthracene	< 0.33	0.0871	0.33	1	mg/Kg	30-Nov-19	
Benzo(a)anthracene	< 0.33	0.3	0.33	1	mg/Kg	30-Nov-19	
Benzo(a)pyrene	< 0.33	0.128	0.33	1	mg/Kg	30-Nov-19	

Approved by: 

### Report of Laboratory Analysis

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NELAP Certificate# San Antonio : T104704367-17-9



# ALAMO ANALYTICAL LABORATORIES, LTD.

## Analytical Results Report

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 24-Oct-19  
**Preparation Date:** 29-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-01A  
**Analyst:** SUB

**Client Sample ID** Depth 9,500 Before

### Semi-volatile Organics by GC/MS

### SW8270C

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
Benzo(b)fluoranthene	< 0.33	0.102	0.33	1	mg/Kg	30-Nov-19	
Benzo(g,h,i)perylene	< 0.33	0.0926	0.33	1	mg/Kg	30-Nov-19	
Benzo(k)fluoranthene	< 0.33	0.111	0.33	1	mg/Kg	30-Nov-19	
Bis(2-chloroethoxy)methane	< 0.33	0.127	0.33	1	mg/Kg	30-Nov-19	
Bis(2-chloroethyl)ether	< 0.33	0.11	0.33	1	mg/Kg	30-Nov-19	
Bis(2-chloroisopropyl)ether	< 0.33	0.239	0.33	1	mg/Kg	30-Nov-19	
Bis(2-ethylhexyl)phthalate	< 0.33	0.162	0.33	1	mg/Kg	30-Nov-19	
Butyl benzyl phthalate	6.8	0.175	0.33	1	mg/Kg	30-Nov-19	
Chrysene	< 0.33	0.0966	0.33	1	mg/Kg	30-Nov-19	
Di-n-butyl phthalate	< 0.33	0.118	0.33	1	mg/Kg	30-Nov-19	
Di-n-octyl phthalate	< 0.33	0.226	0.33	1	mg/Kg	30-Nov-19	
Dibenz(a,h)anthracene	< 0.33	0.0614	0.33	1	mg/Kg	30-Nov-19	
Dibenzofuran	< 0.33	0.0359	0.33	1	mg/Kg	30-Nov-19	
Diethyl phthalate	< 0.33	0.0849	0.33	1	mg/Kg	30-Nov-19	
Dimethyl phthalate	< 0.33	0.0827	0.33	1	mg/Kg	30-Nov-19	
Fluoranthene	< 0.33	0.0695	0.33	1	mg/Kg	30-Nov-19	
Fluorene	< 0.33	0.0669	0.33	1	mg/Kg	30-Nov-19	
Hexachlorobenzene	< 0.33	0.092	0.33	1	mg/Kg	30-Nov-19	
Hexachlorobutadiene	< 0.33	0.0491	0.33	1	mg/Kg	30-Nov-19	
Hexachlorocyclopentadiene	< 0.33	0.066	0.33	1	mg/Kg	30-Nov-19	
Hexachloroethane	< 0.33	0.102	0.33	1	mg/Kg	30-Nov-19	
Indeno(1,2,3-cd)pyrene	< 0.33	0.0583	0.33	1	mg/Kg	30-Nov-19	
Isophorone	< 0.33	0.0988	0.33	1	mg/Kg	30-Nov-19	
N-Nitrosodi-n-propylamine	< 0.33	0.0929	0.33	1	mg/Kg	30-Nov-19	
N-Nitrosodimethylamine	< 0.33	0.0979	0.33	1	mg/Kg	30-Nov-19	
N-Nitrosodiphenylamine	< 0.33	0.28	0.33	1	mg/Kg	30-Nov-19	
Naphthalene	29	0.0935	0.33	1	mg/Kg	30-Nov-19	
Nitrobenzene	< 0.33	0.191	0.33	1	mg/Kg	30-Nov-19	
Pentachlorophenol	< 0.33	0.0548	0.33	1	mg/Kg	30-Nov-19	

**Approved by:**

### Report of Laboratory Analysis

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NELAP Certificate# San Antonio : T104704367-17-9



Client: Quimica del Desierto
Work Order: 1910110
Project Name: Charro Well in Hebberville, TX

Date: 06-Dec-19
Date Received: 28-Oct-19
Collection Date: 24-Oct-19
Preparation Date: 29-Nov-19
Matrix: SOLID
Lab ID: 1910110-01A
Analyst: SUB

Client Sample ID Depth 9,500 Before

Semi-volatile Organics by GC/MS SW8270C

Table with 8 columns: Analyte, Result, MDL, PQL, DF, Units, Date Analyzed, Qual. Rows include Phenanthrene, Phenol, Pyrene, and 3-Methylphenol.

Surrogate Recoveries

Table with 3 columns: Analyte, Recovery, Control Limits

For Surrogates: 0 = Dil. Out

Approved by: [Signature]

Report of Laboratory Analysis

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ALAMO ANALYTICAL LABORATORIES, LTD.

Analytical Results Report

Client: Quimica del Desierto
Work Order: 1910110
Project Name: Charro Well in Hebberville, TX

Date: 06-Dec-19
Date Received: 28-Oct-19
Collection Date: 25-Oct-19
Preparation Date: 29-Nov-19
Matrix: SOLID
Lab ID: 1910110-02A
Analyst: SUB

Client Sample ID Depth 10,500 Before

Semi-volatile Organics by GC/MS

SW8270C

Table with 8 columns: Analyte, Result, MDL, PQL, DF, Units, Date Analyzed, Qual. Rows include various chemical compounds like 1,2,4-Trichlorobenzene, 1,2-Dichlorobenzene, etc.

Approved by: [Signature]

Report of Laboratory Analysis

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NELAP Certificate# San Antonio : T104704367-17-9



**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Analytical Results Report**

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 25-Oct-19  
**Preparation Date:** 29-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-02A  
**Analyst:** SUB

**Client Sample ID** Depth 10,500 Before

**Semi-volatile Organics by GC/MS**

**SW8270C**

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
Benzo(b)fluoranthene	< 0.33	0.102	0.33	1	mg/Kg	30-Nov-19	
Benzo(g,h,i)perylene	< 0.33	0.0926	0.33	1	mg/Kg	30-Nov-19	
Benzo(k)fluoranthene	< 0.33	0.111	0.33	1	mg/Kg	30-Nov-19	
Bis(2-chloroethoxy)methane	< 0.33	0.127	0.33	1	mg/Kg	30-Nov-19	
Bis(2-chloroethyl)ether	< 0.33	0.11	0.33	1	mg/Kg	30-Nov-19	
Bis(2-chloroisopropyl)ether	< 0.33	0.239	0.33	1	mg/Kg	30-Nov-19	
Bis(2-ethylhexyl)phthalate	< 0.33	0.162	0.33	1	mg/Kg	30-Nov-19	
Butyl benzyl phthalate	< 0.33	0.175	0.33	1	mg/Kg	30-Nov-19	
Chrysene	< 0.33	0.0966	0.33	1	mg/Kg	30-Nov-19	
Di-n-butyl phthalate	2	0.118	0.33	1	mg/Kg	30-Nov-19	
Di-n-octyl phthalate	< 0.33	0.226	0.33	1	mg/Kg	30-Nov-19	
Dibenz(a,h)anthracene	< 0.33	0.0614	0.33	1	mg/Kg	30-Nov-19	
Dibenzofuran	< 0.33	0.0359	0.33	1	mg/Kg	30-Nov-19	
Diethyl phthalate	< 0.33	0.0849	0.33	1	mg/Kg	30-Nov-19	
Dimethyl phthalate	< 0.33	0.0827	0.33	1	mg/Kg	30-Nov-19	
Fluoranthene	< 0.33	0.0695	0.33	1	mg/Kg	30-Nov-19	
Fluorene	23.7	0.0669	0.33	1	mg/Kg	30-Nov-19	
Hexachlorobenzene	< 0.33	0.092	0.33	1	mg/Kg	30-Nov-19	
Hexachlorobutadiene	< 0.33	0.0491	0.33	1	mg/Kg	30-Nov-19	
Hexachlorocyclopentadiene	< 0.33	0.066	0.33	1	mg/Kg	30-Nov-19	
Hexachloroethane	< 0.33	0.102	0.33	1	mg/Kg	30-Nov-19	
Indeno(1,2,3-cd)pyrene	< 0.33	0.0583	0.33	1	mg/Kg	30-Nov-19	
Isophorone	< 0.33	0.0988	0.33	1	mg/Kg	30-Nov-19	
N-Nitrosodi-n-propylamine	< 0.33	0.0929	0.33	1	mg/Kg	30-Nov-19	
N-Nitrosodimethylamine	< 0.33	0.0979	0.33	1	mg/Kg	30-Nov-19	
N-Nitrosodiphenylamine	< 0.33	0.28	0.33	1	mg/Kg	30-Nov-19	
Naphthalene	79.4	0.0935	0.33	1	mg/Kg	30-Nov-19	
Nitrobenzene	< 0.33	0.191	0.33	1	mg/Kg	30-Nov-19	
Pentachlorophenol	< 0.33	0.0548	0.33	1	mg/Kg	30-Nov-19	

**Approved by:**

**Report of Laboratory Analysis**

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NELAP Certificate# San Antonio : T104704367-17-9



**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Analytical Results Report**

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 25-Oct-19  
**Preparation Date:** 29-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-02A  
**Analyst:** SUB

**Client Sample ID** Depth 10,500 Before

**Semi-volatile Organics by GC/MS SW8270C**

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
Phenanthrene	56.2	0.0933	0.33	1	mg/Kg	30-Nov-19	
Phenol	< 0.33	0.201	0.33	1	mg/Kg	30-Nov-19	
Pyrene	2.1	0.125	0.33	1	mg/Kg	30-Nov-19	
3-Methylphenol	< 0.66	0.158	0.66	1	mg/Kg	30-Nov-19	

**Surrogate Recoveries**

Analyte	Recovery	Control Limits
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For Surrogates: 0 = Dil. Out

**Approved by:** *[Signature]*

**Report of Laboratory Analysis**

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NELAP Certificate# San Antonio : T104704367-17-9



**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Analytical Results Report**

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 25-Oct-19  
**Preparation Date:** 29-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-03A  
**Analyst:** SUB

**Client Sample ID** Depth 11,500 Before

**Semi-volatile Organics by GC/MS**

**SW8270C**

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
1,2,4-Trichlorobenzene	< 0.33	0.0765	0.33	1	mg/Kg	30-Nov-19	
1,2-Dichlorobenzene	< 0.33	0.0903	0.33	1	mg/Kg	30-Nov-19	
1,3-Dichlorobenzene	< 0.33	0.0926	0.33	1	mg/Kg	30-Nov-19	
1,4-Dichlorobenzene	< 0.33	0.0897	0.33	1	mg/Kg	30-Nov-19	
2,4,5-Trichlorophenol	< 0.33	0.12	0.33	1	mg/Kg	30-Nov-19	
2,4,6-Trichlorophenol	< 0.33	0.114	0.33	1	mg/Kg	30-Nov-19	
2,4-Dichlorophenol	< 0.33	0.0867	0.33	1	mg/Kg	30-Nov-19	
2,4-Dimethylphenol	< 0.33	0.174	0.33	1	mg/Kg	30-Nov-19	
2,4-Dinitrophenol	< 0.33	0.0937	0.33	1	mg/Kg	30-Nov-19	
2,4-Dinitrotoluene	< 0.33	0.114	0.33	1	mg/Kg	30-Nov-19	
2,6-Dichlorophenol	< 0.33	0.0739	0.33	1	mg/Kg	30-Nov-19	
2,6-Dinitrotoluene	< 0.33	0.0834	0.33	1	mg/Kg	30-Nov-19	
2-Chloronaphthalene	< 0.33	0.586	0.33	1	mg/Kg	30-Nov-19	
2-Chlorophenol	< 0.33	0.122	0.33	1	mg/Kg	30-Nov-19	
2-Methylnaphthalene	20.2	0.043	0.33	1	mg/Kg	30-Nov-19	
2-Methylphenol	< 0.33	0.173	0.33	1	mg/Kg	30-Nov-19	
2-Nitrophenol	< 0.33	0.218	0.33	1	mg/Kg	30-Nov-19	
4,6-Dinitro-2-methylphenol	< 0.33	0.0727	0.33	1	mg/Kg	30-Nov-19	
4-Bromophenyl phenyl ether	< 0.33	0.103	0.33	1	mg/Kg	30-Nov-19	
4-Chloro-3-methylphenol	< 0.33	0.171	0.33	1	mg/Kg	30-Nov-19	
4-Chloroaniline	< 0.33	0.0811	0.33	1	mg/Kg	30-Nov-19	
4-Chlorophenyl phenyl ether	< 0.33	0.0584	0.33	1	mg/Kg	30-Nov-19	
4-Methylphenol	< 0.33	0.24	0.33	1	mg/Kg	30-Nov-19	
4-Nitrophenol	< 0.33	0.0589	0.33	1	mg/Kg	30-Nov-19	
Acenaphthene	37.8	0.0839	0.33	1	mg/Kg	30-Nov-19	
Acenaphthylene	3	0.0913	0.33	1	mg/Kg	30-Nov-19	
Anthracene	3.6	0.0871	0.33	1	mg/Kg	30-Nov-19	
Benzo(a)anthracene	< 0.33	0.3	0.33	1	mg/Kg	30-Nov-19	
Benzo(a)pyrene	< 0.33	0.128	0.33	1	mg/Kg	30-Nov-19	

**Approved by:**

**Report of Laboratory Analysis**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

NELAP Certificate# San Antonio : T104704367-17-9



# ALAMO ANALYTICAL LABORATORIES, LTD.

## Analytical Results Report

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 25-Oct-19  
**Preparation Date:** 29-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-03A  
**Analyst:** SUB

**Client Sample ID** Depth 11,500 Before

### Semi-volatile Organics by GC/MS

### SW8270C

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
Benzo(b)fluoranthene	< 0.33	0.102	0.33	1	mg/Kg	30-Nov-19	
Benzo(g,h,i)perylene	< 0.33	0.0926	0.33	1	mg/Kg	30-Nov-19	
Benzo(k)fluoranthene	< 0.33	0.111	0.33	1	mg/Kg	30-Nov-19	
Bis(2-chloroethoxy)methane	< 0.33	0.127	0.33	1	mg/Kg	30-Nov-19	
Bis(2-chloroethyl)ether	< 0.33	0.11	0.33	1	mg/Kg	30-Nov-19	
Bis(2-chloroisopropyl)ether	< 0.33	0.239	0.33	1	mg/Kg	30-Nov-19	
Bis(2-ethylhexyl)phthalate	< 0.33	0.162	0.33	1	mg/Kg	30-Nov-19	
Butyl benzyl phthalate	< 0.33	0.175	0.33	1	mg/Kg	30-Nov-19	
Chrysene	< 0.33	0.0966	0.33	1	mg/Kg	30-Nov-19	
Di-n-butyl phthalate	< 0.33	0.118	0.33	1	mg/Kg	30-Nov-19	
Di-n-octyl phthalate	< 0.33	0.226	0.33	1	mg/Kg	30-Nov-19	
Dibenz(a,h)anthracene	< 0.33	0.0614	0.33	1	mg/Kg	30-Nov-19	
Dibenzofuran	< 0.33	0.0359	0.33	1	mg/Kg	30-Nov-19	
Diethyl phthalate	< 0.33	0.0849	0.33	1	mg/Kg	30-Nov-19	
Dimethyl phthalate	< 0.33	0.0827	0.33	1	mg/Kg	30-Nov-19	
Fluoranthene	< 0.33	0.0695	0.33	1	mg/Kg	30-Nov-19	
Fluorene	< 0.33	0.0669	0.33	1	mg/Kg	30-Nov-19	
Hexachlorobenzene	< 0.33	0.092	0.33	1	mg/Kg	30-Nov-19	
Hexachlorobutadiene	< 0.33	0.0491	0.33	1	mg/Kg	30-Nov-19	
Hexachlorocyclopentadiene	< 0.33	0.066	0.33	1	mg/Kg	30-Nov-19	
Hexachloroethane	< 0.33	0.102	0.33	1	mg/Kg	30-Nov-19	
Indeno(1,2,3-cd)pyrene	< 0.33	0.0583	0.33	1	mg/Kg	30-Nov-19	
Isophorone	< 0.33	0.0988	0.33	1	mg/Kg	30-Nov-19	
N-Nitrosodi-n-propylamine	< 0.33	0.0929	0.33	1	mg/Kg	30-Nov-19	
N-Nitrosodimethylamine	< 0.33	0.0979	0.33	1	mg/Kg	30-Nov-19	
N-Nitrosodiphenylamine	< 0.33	0.28	0.33	1	mg/Kg	30-Nov-19	
Naphthalene	35.6	0.0935	0.33	1	mg/Kg	30-Nov-19	
Nitrobenzene	< 0.33	0.191	0.33	1	mg/Kg	30-Nov-19	
Pentachlorophenol	< 0.33	0.0548	0.33	1	mg/Kg	30-Nov-19	

Approved by:

### Report of Laboratory Analysis

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NELAP Certificate# San Antonio : T104704367-17-9



Client: Quimica del Desierto
Work Order: 1910110
Project Name: Charro Well in Hebberville, TX

Date: 06-Dec-19
Date Received: 28-Oct-19
Collection Date: 25-Oct-19
Preparation Date: 29-Nov-19
Matrix: SOLID
Lab ID: 1910110-03A
Analyst: SUB

Client Sample ID Depth 11,500 Before

Semi-volatile Organics by GC/MS SW8270C

Table with 8 columns: Analyte, Result, MDL, PQL, DF, Units, Date Analyzed, Qual. Rows include Phenanthrene, Phenol, Pyrene, and 3-Methylphenol.

Surrogate Recoveries

Table with 3 columns: Analyte, Recovery, Control Limits

For Surrogates: 0 = Dil. Out

Approved by:

Handwritten signature

Report of Laboratory Analysis

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.



Client: Quimica del Desierto
Work Order: 1910110
Project Name: Charro Well in Hebberville, TX

Date: 06-Dec-19
Date Received: 28-Oct-19
Collection Date: 28-Oct-19
Preparation Date: 29-Nov-19
Matrix: SOLID
Lab ID: 1910110-04A
Analyst: SUB

Client Sample ID Biograss Extract

Semi-volatile Organics by GC/MS

SW8270C

Table with 8 columns: Analyte, Result, MDL, PQL, DF, Units, Date Analyzed, Qual. Rows list various chemical compounds like 1,2,4-Trichlorobenzene, 1,2-Dichlorobenzene, etc., with their respective results and detection limits.

Approved by: [Signature]

Report of Laboratory Analysis

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# ALAMO ANALYTICAL LABORATORIES, LTD.

## Analytical Results Report

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 28-Oct-19  
**Preparation Date:** 29-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-04A  
**Analyst:** SUB

**Client Sample ID** Biograss Extract

### Semi-volatile Organics by GC/MS

### SW8270C

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
Benzo(b)fluoranthene	< 0.33	0.102	0.33	1	mg/Kg	30-Nov-19	
Benzo(g,h,i)perylene	< 0.33	0.0926	0.33	1	mg/Kg	30-Nov-19	
Benzo(k)fluoranthene	< 0.33	0.111	0.33	1	mg/Kg	30-Nov-19	
Bis(2-chloroethoxy)methane	< 0.33	0.127	0.33	1	mg/Kg	30-Nov-19	
Bis(2-chloroethyl)ether	< 0.33	0.11	0.33	1	mg/Kg	30-Nov-19	
Bis(2-chloroisopropyl)ether	< 0.33	0.239	0.33	1	mg/Kg	30-Nov-19	
Bis(2-ethylhexyl)phthalate	< 0.33	0.162	0.33	1	mg/Kg	30-Nov-19	
Butyl benzyl phthalate	< 0.33	0.175	0.33	1	mg/Kg	30-Nov-19	
Chrysene	< 0.33	0.0966	0.33	1	mg/Kg	30-Nov-19	
Di-n-butyl phthalate	< 0.33	0.118	0.33	1	mg/Kg	30-Nov-19	
Di-n-octyl phthalate	< 0.33	0.226	0.33	1	mg/Kg	30-Nov-19	
Dibenz(a,h)anthracene	< 0.33	0.0614	0.33	1	mg/Kg	30-Nov-19	
Dibenzofuran	< 0.33	0.0359	0.33	1	mg/Kg	30-Nov-19	
Diethyl phthalate	< 0.33	0.0849	0.33	1	mg/Kg	30-Nov-19	
Dimethyl phthalate	< 0.33	0.0827	0.33	1	mg/Kg	30-Nov-19	
Fluoranthene	< 0.33	0.0695	0.33	1	mg/Kg	30-Nov-19	
Fluorene	< 0.33	0.0669	0.33	1	mg/Kg	30-Nov-19	
Hexachlorobenzene	< 0.33	0.092	0.33	1	mg/Kg	30-Nov-19	
Hexachlorobutadiene	< 0.33	0.0491	0.33	1	mg/Kg	30-Nov-19	
Hexachlorocyclopentadiene	< 0.33	0.066	0.33	1	mg/Kg	30-Nov-19	
Hexachloroethane	< 0.33	0.102	0.33	1	mg/Kg	30-Nov-19	
Indeno(1,2,3-cd)pyrene	< 0.33	0.0583	0.33	1	mg/Kg	30-Nov-19	
Isophorone	< 0.33	0.0988	0.33	1	mg/Kg	30-Nov-19	
N-Nitrosodi-n-propylamine	< 0.33	0.0929	0.33	1	mg/Kg	30-Nov-19	
N-Nitrosodimethylamine	< 0.33	0.0979	0.33	1	mg/Kg	30-Nov-19	
N-Nitrosodiphenylamine	< 0.33	0.28	0.33	1	mg/Kg	30-Nov-19	
Naphthalene	< 0.33	0.0935	0.33	1	mg/Kg	30-Nov-19	
Nitrobenzene	< 0.33	0.191	0.33	1	mg/Kg	30-Nov-19	
Pentachlorophenol	< 0.33	0.0548	0.33	1	mg/Kg	30-Nov-19	

Approved by: 

### Report of Laboratory Analysis

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NELAP Certificate# San Antonio : T104704367-17-9





Client: Quimica del Desierto
Work Order: 1910110
Project Name: Charro Well in Hebberville, TX

Date: 06-Dec-19
Date Received: 28-Oct-19
Collection Date: 28-Oct-19
Preparation Date: 29-Nov-19
Matrix: SOLID
Lab ID: 1910110-04A
Analyst: SUB

Client Sample ID Biograss Extract

Semi-volatile Organics by GC/MS SW8270C

Table with 8 columns: Analyte, Result, MDL, PQL, DF, Units, Date Analyzed, Qual. Rows include Phenanthrene, Phenol, Pyrene, and 3-Methylphenol.

Surrogate Recoveries

Table with 3 columns: Analyte, Recovery, Control Limits

For Surrogates: 0 = Dil. Out

Approved by: [Signature]

Report of Laboratory Analysis

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**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Analytical Results Report**

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 24-Oct-19  
**Preparation Date:** 29-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-05A  
**Analyst:** SUB

**Client Sample ID** Depth 9,500 After

**Semi-volatile Organics by GC/MS**

**SW8270C**

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
1,2,4-Trichlorobenzene	< 0.33	0.0765	0.33	1	mg/Kg	30-Nov-19	
1,2-Dichlorobenzene	< 0.33	0.0903	0.33	1	mg/Kg	30-Nov-19	
1,3-Dichlorobenzene	< 0.33	0.0926	0.33	1	mg/Kg	30-Nov-19	
1,4-Dichlorobenzene	< 0.33	0.0897	0.33	1	mg/Kg	30-Nov-19	
2,4,5-Trichlorophenol	< 0.33	0.12	0.33	1	mg/Kg	30-Nov-19	
2,4,6-Trichlorophenol	< 0.33	0.114	0.33	1	mg/Kg	30-Nov-19	
2,4-Dichlorophenol	< 0.33	0.0867	0.33	1	mg/Kg	30-Nov-19	
2,4-Dimethylphenol	< 0.33	0.174	0.33	1	mg/Kg	30-Nov-19	
2,4-Dinitrophenol	< 0.33	0.0937	0.33	1	mg/Kg	30-Nov-19	
2,4-Dinitrotoluene	< 0.33	0.114	0.33	1	mg/Kg	30-Nov-19	
2,6-Dichlorophenol	< 0.33	0.0739	0.33	1	mg/Kg	30-Nov-19	
2,6-Dinitrotoluene	< 0.33	0.0834	0.33	1	mg/Kg	30-Nov-19	
2-Chloronaphthalene	< 0.33	0.586	0.33	1	mg/Kg	30-Nov-19	
2-Chlorophenol	< 0.33	0.122	0.33	1	mg/Kg	30-Nov-19	
2-Methylnaphthalene	1.6	0.043	0.33	1	mg/Kg	30-Nov-19	
2-Methylphenol	< 0.33	0.173	0.33	1	mg/Kg	30-Nov-19	
2-Nitrophenol	< 0.33	0.218	0.33	1	mg/Kg	30-Nov-19	
4,6-Dinitro-2-methylphenol	< 0.33	0.0727	0.33	1	mg/Kg	30-Nov-19	
4-Bromophenyl phenyl ether	< 0.33	0.103	0.33	1	mg/Kg	30-Nov-19	
4-Chloro-3-methylphenol	< 0.33	0.171	0.33	1	mg/Kg	30-Nov-19	
4-Chloroaniline	< 0.33	0.0811	0.33	1	mg/Kg	30-Nov-19	
4-Chlorophenyl phenyl ether	< 0.33	0.0584	0.33	1	mg/Kg	30-Nov-19	
4-Methylphenol	< 0.33	0.24	0.33	1	mg/Kg	30-Nov-19	
4-Nitrophenol	< 0.33	0.0589	0.33	1	mg/Kg	30-Nov-19	
Acenaphthene	0.5	0.0839	0.33	1	mg/Kg	30-Nov-19	
Acenaphthylene	< 0.33	0.0913	0.33	1	mg/Kg	30-Nov-19	
Anthracene	2.9	0.0871	0.33	1	mg/Kg	30-Nov-19	
Benzo(a)anthracene	< 0.33	0.3	0.33	1	mg/Kg	30-Nov-19	
Benzo(a)pyrene	< 0.33	0.128	0.33	1	mg/Kg	30-Nov-19	

**Approved by:**

**Report of Laboratory Analysis**

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NELAP Certificate# San Antonio : T104704367-17-9



# ALAMO ANALYTICAL LABORATORIES, LTD.

## Analytical Results Report

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 24-Oct-19  
**Preparation Date:** 29-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-05A  
**Analyst:** SUB

**Client Sample ID** Depth 9,500 After

### Semi-volatile Organics by GC/MS

SW8270C

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
Benzo(b)fluoranthene	< 0.33	0.102	0.33	1	mg/Kg	30-Nov-19	
Benzo(g,h,i)perylene	< 0.33	0.0926	0.33	1	mg/Kg	30-Nov-19	
Benzo(k)fluoranthene	< 0.33	0.111	0.33	1	mg/Kg	30-Nov-19	
Bis(2-chloroethoxy)methane	< 0.33	0.127	0.33	1	mg/Kg	30-Nov-19	
Bis(2-chloroethyl)ether	< 0.33	0.11	0.33	1	mg/Kg	30-Nov-19	
Bis(2-chloroisopropyl)ether	< 0.33	0.239	0.33	1	mg/Kg	30-Nov-19	
Bis(2-ethylhexyl)phthalate	< 0.33	0.162	0.33	1	mg/Kg	30-Nov-19	
Butyl benzyl phthalate	< 0.33	0.175	0.33	1	mg/Kg	30-Nov-19	
Chrysene	< 0.33	0.0966	0.33	1	mg/Kg	30-Nov-19	
Di-n-butyl phthalate	< 0.33	0.118	0.33	1	mg/Kg	30-Nov-19	
Di-n-octyl phthalate	< 0.33	0.226	0.33	1	mg/Kg	30-Nov-19	
Dibenz(a,h)anthracene	< 0.33	0.0614	0.33	1	mg/Kg	30-Nov-19	
Dibenzofuran	< 0.33	0.0359	0.33	1	mg/Kg	30-Nov-19	
Diethyl phthalate	< 0.33	0.0849	0.33	1	mg/Kg	30-Nov-19	
Dimethyl phthalate	< 0.33	0.0827	0.33	1	mg/Kg	30-Nov-19	
Fluoranthene	< 0.33	0.0695	0.33	1	mg/Kg	30-Nov-19	
Fluorene	7.5	0.0669	0.33	1	mg/Kg	30-Nov-19	
Hexachlorobenzene	< 0.33	0.092	0.33	1	mg/Kg	30-Nov-19	
Hexachlorobutadiene	< 0.33	0.0491	0.33	1	mg/Kg	30-Nov-19	
Hexachlorocyclopentadiene	< 0.33	0.066	0.33	1	mg/Kg	30-Nov-19	
Hexachloroethane	< 0.33	0.102	0.33	1	mg/Kg	30-Nov-19	
Indeno(1,2,3-cd)pyrene	< 0.33	0.0583	0.33	1	mg/Kg	30-Nov-19	
Isophorone	< 0.33	0.0988	0.33	1	mg/Kg	30-Nov-19	
N-Nitrosodi-n-propylamine	< 0.33	0.0929	0.33	1	mg/Kg	30-Nov-19	
N-Nitrosodimethylamine	< 0.33	0.0979	0.33	1	mg/Kg	30-Nov-19	
N-Nitrosodiphenylamine	< 0.33	0.28	0.33	1	mg/Kg	30-Nov-19	
Naphthalene	33.3	0.0935	0.33	1	mg/Kg	30-Nov-19	
Nitrobenzene	< 0.33	0.191	0.33	1	mg/Kg	30-Nov-19	
Pentachlorophenol	< 0.33	0.0548	0.33	1	mg/Kg	30-Nov-19	

Approved by:

### Report of Laboratory Analysis

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NELAP Certificate# San Antonio : T104704367-17-9



**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Analytical Results Report**

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 24-Oct-19  
**Preparation Date:** 29-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-05A  
**Analyst:** SUB

**Client Sample ID** Depth 9,500 After

**Semi-volatile Organics by GC/MS SW8270C**

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
Phenanthrene	17.3	0.0933	0.33	1	mg/Kg	30-Nov-19	
Phenol	< 0.33	0.201	0.33	1	mg/Kg	30-Nov-19	
Pyrene	< 0.33	0.125	0.33	1	mg/Kg	30-Nov-19	
3-Methylphenol	< 0.66	0.158	0.66	1	mg/Kg	30-Nov-19	

**Surrogate Recoveries**

Analyte	Recovery	Control Limits
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For Surrogates: 0 = Dil. Out

**Approved by:** *[Signature]*

**Report of Laboratory Analysis**

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NELAP Certificate# San Antonio : T104704367-17-9



**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Analytical Results Report**

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 25-Oct-19  
**Preparation Date:** 29-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-06A  
**Analyst:** SUB

**Client Sample ID** Depth 10,500 After

**Semi-volatile Organics by GC/MS**

**SW8270C**

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
1,2,4-Trichlorobenzene	< 0.33	0.0765	0.33	1	mg/Kg	30-Nov-19	
1,2-Dichlorobenzene	< 0.33	0.0903	0.33	1	mg/Kg	30-Nov-19	
1,3-Dichlorobenzene	< 0.33	0.0926	0.33	1	mg/Kg	30-Nov-19	
1,4-Dichlorobenzene	< 0.33	0.0897	0.33	1	mg/Kg	30-Nov-19	
2,4,5-Trichlorophenol	< 0.33	0.12	0.33	1	mg/Kg	30-Nov-19	
2,4,6-Trichlorophenol	< 0.33	0.114	0.33	1	mg/Kg	30-Nov-19	
2,4-Dichlorophenol	< 0.33	0.0867	0.33	1	mg/Kg	30-Nov-19	
2,4-Dimethylphenol	< 0.33	0.174	0.33	1	mg/Kg	30-Nov-19	
2,4-Dinitrophenol	< 0.33	0.0937	0.33	1	mg/Kg	30-Nov-19	
2,4-Dinitrotoluene	< 0.33	0.114	0.33	1	mg/Kg	30-Nov-19	
2,6-Dichlorophenol	< 0.33	0.0739	0.33	1	mg/Kg	30-Nov-19	
2,6-Dinitrotoluene	< 0.33	0.0834	0.33	1	mg/Kg	30-Nov-19	
2-Chloronaphthalene	< 0.33	0.586	0.33	1	mg/Kg	30-Nov-19	
2-Chlorophenol	< 0.33	0.122	0.33	1	mg/Kg	30-Nov-19	
2-Methylnaphthalene	6.5	0.043	0.33	1	mg/Kg	30-Nov-19	
2-Methylphenol	< 0.33	0.173	0.33	1	mg/Kg	30-Nov-19	
2-Nitrophenol	< 0.33	0.218	0.33	1	mg/Kg	30-Nov-19	
4,6-Dinitro-2-methylphenol	< 0.33	0.0727	0.33	1	mg/Kg	30-Nov-19	
4-Bromophenyl phenyl ether	< 0.33	0.103	0.33	1	mg/Kg	30-Nov-19	
4-Chloro-3-methylphenol	< 0.33	0.171	0.33	1	mg/Kg	30-Nov-19	
4-Chloroaniline	< 0.33	0.0811	0.33	1	mg/Kg	30-Nov-19	
4-Chlorophenyl phenyl ether	< 0.33	0.0584	0.33	1	mg/Kg	30-Nov-19	
4-Methylphenol	< 0.33	0.24	0.33	1	mg/Kg	30-Nov-19	
4-Nitrophenol	< 0.33	0.0589	0.33	1	mg/Kg	30-Nov-19	
Acenaphthene	8.8	0.0839	0.33	1	mg/Kg	30-Nov-19	
Acenaphthylene	< 0.33	0.0913	0.33	1	mg/Kg	30-Nov-19	
Anthracene	1.7	0.0871	0.33	1	mg/Kg	30-Nov-19	
Benzo(a)anthracene	< 0.33	0.3	0.33	1	mg/Kg	30-Nov-19	
Benzo(a)pyrene	< 0.33	0.128	0.33	1	mg/Kg	30-Nov-19	

**Approved by:**

**Report of Laboratory Analysis**

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NELAP Certificate# San Antonio : T104704367-17-9



**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Analytical Results Report**

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 25-Oct-19  
**Preparation Date:** 29-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-06A  
**Analyst:** SUB

**Client Sample ID** Depth 10,500 After

**Semi-volatile Organics by GC/MS**

**SW8270C**

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
Benzo(b)fluoranthene	< 0.33	0.102	0.33	1	mg/Kg	30-Nov-19	
Benzo(g,h,i)perylene	< 0.33	0.0926	0.33	1	mg/Kg	30-Nov-19	
Benzo(k)fluoranthene	< 0.33	0.111	0.33	1	mg/Kg	30-Nov-19	
Bis(2-chloroethoxy)methane	< 0.33	0.127	0.33	1	mg/Kg	30-Nov-19	
Bis(2-chloroethyl)ether	< 0.33	0.11	0.33	1	mg/Kg	30-Nov-19	
Bis(2-chloroisopropyl)ether	< 0.33	0.239	0.33	1	mg/Kg	30-Nov-19	
Bis(2-ethylhexyl)phthalate	< 0.33	0.162	0.33	1	mg/Kg	30-Nov-19	
Butyl benzyl phthalate	< 0.33	0.175	0.33	1	mg/Kg	30-Nov-19	
Chrysene	< 0.33	0.0966	0.33	1	mg/Kg	30-Nov-19	
Di-n-butyl phthalate	< 0.33	0.118	0.33	1	mg/Kg	30-Nov-19	
Di-n-octyl phthalate	< 0.33	0.226	0.33	1	mg/Kg	30-Nov-19	
Dibenz(a,h)anthracene	< 0.33	0.0614	0.33	1	mg/Kg	30-Nov-19	
Dibenzofuran	< 0.33	0.0359	0.33	1	mg/Kg	30-Nov-19	
Diethyl phthalate	< 0.33	0.0849	0.33	1	mg/Kg	30-Nov-19	
Dimethyl phthalate	< 0.33	0.0827	0.33	1	mg/Kg	30-Nov-19	
Fluoranthene	< 0.33	0.0695	0.33	1	mg/Kg	30-Nov-19	
Fluorene	6.5	0.0669	0.33	1	mg/Kg	30-Nov-19	
Hexachlorobenzene	< 0.33	0.092	0.33	1	mg/Kg	30-Nov-19	
Hexachlorobutadiene	< 0.33	0.0491	0.33	1	mg/Kg	30-Nov-19	
Hexachlorocyclopentadiene	< 0.33	0.066	0.33	1	mg/Kg	30-Nov-19	
Hexachloroethane	63.6	0.102	0.33	1	mg/Kg	30-Nov-19	
Indeno(1,2,3-cd)pyrene	< 0.33	0.0583	0.33	1	mg/Kg	30-Nov-19	
Isophorone	< 0.33	0.0988	0.33	1	mg/Kg	30-Nov-19	
N-Nitrosodi-n-propylamine	23.1	0.0929	0.33	1	mg/Kg	30-Nov-19	
N-Nitrosodimethylamine	< 0.33	0.0979	0.33	1	mg/Kg	30-Nov-19	
N-Nitrosodiphenylamine	< 0.33	0.28	0.33	1	mg/Kg	30-Nov-19	
Naphthalene	2.7	0.0935	0.33	1	mg/Kg	30-Nov-19	
Nitrobenzene	< 0.33	0.191	0.33	1	mg/Kg	30-Nov-19	
Pentachlorophenol	< 0.33	0.0548	0.33	1	mg/Kg	30-Nov-19	

**Approved by:**

**Report of Laboratory Analysis**

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NELAP Certificate# San Antonio : T104704367-17-9



**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Analytical Results Report**

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 25-Oct-19  
**Preparation Date:** 29-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-06A  
**Analyst:** SUB

**Client Sample ID** Depth 10,500 After

**Semi-volatile Organics by GC/MS SW8270C**

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
Phenanthrene	5.3	0.0933	0.33	1	mg/Kg	30-Nov-19	
Phenol	< 0.33	0.201	0.33	1	mg/Kg	30-Nov-19	
Pyrene	< 0.33	0.125	0.33	1	mg/Kg	30-Nov-19	
3-Methylphenol	< 0.66	0.158	0.66	1	mg/Kg	30-Nov-19	

**Surrogate Recoveries**

Analyte	Recovery	Control Limits
---------	----------	----------------

For Surrogates: 0 = Dil. Out

**Approved by:**

**Report of Laboratory Analysis**

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NELAP Certificate# San Antonio : T104704367-17-9



# ALAMO ANALYTICAL LABORATORIES, LTD.

## Analytical Results Report

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 25-Oct-19  
**Preparation Date:** 29-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-07A  
**Analyst:** SUB

**Client Sample ID** Depth 11,500 After

### Semi-volatile Organics by GC/MS

### SW8270C

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
1,2,4-Trichlorobenzene	< 0.33	0.0765	0.33	1	mg/Kg	30-Nov-19	
1,2-Dichlorobenzene	< 0.33	0.0903	0.33	1	mg/Kg	30-Nov-19	
1,3-Dichlorobenzene	< 0.33	0.0926	0.33	1	mg/Kg	30-Nov-19	
1,4-Dichlorobenzene	< 0.33	0.0897	0.33	1	mg/Kg	30-Nov-19	
2,4,5-Trichlorophenol	< 0.33	0.12	0.33	1	mg/Kg	30-Nov-19	
2,4,6-Trichlorophenol	< 0.33	0.114	0.33	1	mg/Kg	30-Nov-19	
2,4-Dichlorophenol	< 0.33	0.0867	0.33	1	mg/Kg	30-Nov-19	
2,4-Dimethylphenol	< 0.33	0.174	0.33	1	mg/Kg	30-Nov-19	
2,4-Dinitrophenol	< 0.33	0.0937	0.33	1	mg/Kg	30-Nov-19	
2,4-Dinitrotoluene	< 0.33	0.114	0.33	1	mg/Kg	30-Nov-19	
2,6-Dichlorophenol	< 0.33	0.0739	0.33	1	mg/Kg	30-Nov-19	
2,6-Dinitrotoluene	< 0.33	0.0834	0.33	1	mg/Kg	30-Nov-19	
2-Chloronaphthalene	< 0.33	0.586	0.33	1	mg/Kg	30-Nov-19	
2-Chlorophenol	< 0.33	0.122	0.33	1	mg/Kg	30-Nov-19	
2-Methylnaphthalene	9.8	0.043	0.33	1	mg/Kg	30-Nov-19	
2-Methylphenol	< 0.33	0.173	0.33	1	mg/Kg	30-Nov-19	
2-Nitrophenol	< 0.33	0.218	0.33	1	mg/Kg	30-Nov-19	
4,6-Dinitro-2-methylphenol	< 0.33	0.0727	0.33	1	mg/Kg	30-Nov-19	
4-Bromophenyl phenyl ether	< 0.33	0.103	0.33	1	mg/Kg	30-Nov-19	
4-Chloro-3-methylphenol	< 0.33	0.171	0.33	1	mg/Kg	30-Nov-19	
4-Chloroaniline	< 0.33	0.0811	0.33	1	mg/Kg	30-Nov-19	
4-Chlorophenyl phenyl ether	< 0.33	0.0584	0.33	1	mg/Kg	30-Nov-19	
4-Methylphenol	< 0.33	0.24	0.33	1	mg/Kg	30-Nov-19	
4-Nitrophenol	< 0.33	0.0589	0.33	1	mg/Kg	30-Nov-19	
Acenaphthene	< 0.33	0.0839	0.33	1	mg/Kg	30-Nov-19	
Acenaphthylene	< 0.33	0.0913	0.33	1	mg/Kg	30-Nov-19	
Anthracene	< 0.33	0.0871	0.33	1	mg/Kg	30-Nov-19	
Benzo(a)anthracene	< 0.33	0.3	0.33	1	mg/Kg	30-Nov-19	
Benzo(a)pyrene	< 0.33	0.128	0.33	1	mg/Kg	30-Nov-19	

Approved by: 

### Report of Laboratory Analysis

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NELAP Certificate# San Antonio : T104704367-17-9





# ALAMO ANALYTICAL LABORATORIES, LTD.

## Analytical Results Report

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 25-Oct-19  
**Preparation Date:** 29-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-07A  
**Analyst:** SUB

**Client Sample ID** Depth 11,500 After

### Semi-volatile Organics by GC/MS

### SW8270C

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
Benzo(b)fluoranthene	< 0.33	0.102	0.33	1	mg/Kg	30-Nov-19	
Benzo(g,h,i)perylene	< 0.33	0.0926	0.33	1	mg/Kg	30-Nov-19	
Benzo(k)fluoranthene	< 0.33	0.111	0.33	1	mg/Kg	30-Nov-19	
Bis(2-chloroethoxy)methane	< 0.33	0.127	0.33	1	mg/Kg	30-Nov-19	
Bis(2-chloroethyl)ether	< 0.33	0.11	0.33	1	mg/Kg	30-Nov-19	
Bis(2-chloroisopropyl)ether	< 0.33	0.239	0.33	1	mg/Kg	30-Nov-19	
Bis(2-ethylhexyl)phthalate	< 0.33	0.162	0.33	1	mg/Kg	30-Nov-19	
Butyl benzyl phthalate	< 0.33	0.175	0.33	1	mg/Kg	30-Nov-19	
Chrysene	< 0.33	0.0966	0.33	1	mg/Kg	30-Nov-19	
Di-n-butyl phthalate	< 0.33	0.118	0.33	1	mg/Kg	30-Nov-19	
Di-n-octyl phthalate	< 0.33	0.226	0.33	1	mg/Kg	30-Nov-19	
Dibenz(a,h)anthracene	< 0.33	0.0614	0.33	1	mg/Kg	30-Nov-19	
Dibenzofuran	< 0.33	0.0359	0.33	1	mg/Kg	30-Nov-19	
Diethyl phthalate	< 0.33	0.0849	0.33	1	mg/Kg	30-Nov-19	
Dimethyl phthalate	< 0.33	0.0827	0.33	1	mg/Kg	30-Nov-19	
Fluoranthene	< 0.33	0.0695	0.33	1	mg/Kg	30-Nov-19	
Fluorene	< 0.33	0.0669	0.33	1	mg/Kg	30-Nov-19	
Hexachlorobenzene	< 0.33	0.092	0.33	1	mg/Kg	30-Nov-19	
Hexachlorobutadiene	< 0.33	0.0491	0.33	1	mg/Kg	30-Nov-19	
Hexachlorocyclopentadiene	< 0.33	0.066	0.33	1	mg/Kg	30-Nov-19	
Hexachloroethane	< 0.33	0.102	0.33	1	mg/Kg	30-Nov-19	
Indeno(1,2,3-cd)pyrene	< 0.33	0.0583	0.33	1	mg/Kg	30-Nov-19	
Isophorone	< 0.33	0.0988	0.33	1	mg/Kg	30-Nov-19	
N-Nitrosodi-n-propylamine	< 0.33	0.0929	0.33	1	mg/Kg	30-Nov-19	
N-Nitrosodimethylamine	< 0.33	0.0979	0.33	1	mg/Kg	30-Nov-19	
N-Nitrosodiphenylamine	< 0.33	0.28	0.33	1	mg/Kg	30-Nov-19	
Naphthalene	16.8	0.0935	0.33	1	mg/Kg	30-Nov-19	
Nitrobenzene	< 0.33	0.191	0.33	1	mg/Kg	30-Nov-19	
Pentachlorophenol	< 0.33	0.0548	0.33	1	mg/Kg	30-Nov-19	

**Approved by:**

### Report of Laboratory Analysis

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NELAP Certificate# San Antonio : T104704367-17-9



**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Analytical Results Report**

**Client:** Quimica del Desierto  
**Work Order:** 1910110  
**Project Name:** Charro Well in Hebberville, TX

**Date:** 06-Dec-19  
**Date Received:** 28-Oct-19  
**Collection Date:** 25-Oct-19  
**Preparation Date:** 29-Nov-19  
**Matrix:** SOLID  
**Lab ID:** 1910110-07A  
**Analyst:** SUB

**Client Sample ID** Depth 11,500 After

**Semi-volatile Organics by GC/MS SW8270C**

Analyte	Result	MDL	PQL	DF	Units	Date Analyzed	Qual
Phenanthrene	< 0.33	0.0933	0.33	1	mg/Kg	30-Nov-19	
Phenol	< 0.33	0.201	0.33	1	mg/Kg	30-Nov-19	
Pyrene	< 0.33	0.125	0.33	1	mg/Kg	30-Nov-19	
3-Methylphenol	< 0.66	0.158	0.66	1	mg/Kg	30-Nov-19	

**Surrogate Recoveries**

Analyte	Recovery	Control Limits
---------	----------	----------------

For Surrogates: 0 = Dil. Out

**Approved by:** *[Signature]*

**Report of Laboratory Analysis**

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NELAP Certificate# San Antonio : T104704367-17-9



# ALAMO ANALYTICAL LABORATORIES, LTD.

10526 Gulfdale  
San Antonio, TX – 78216;  
Ph. (210) 340-8121; Fax: (210) 340-8123

2500 Montana Avenue  
El Paso, TX – 79903  
Ph. (915) 599-2183; Fax: (915) 592-4659

[www.alamoanalytical.com](http://www.alamoanalytical.com); (800) 572-6955

## LABORATORY ANALYTICAL RESULTS

Client Name: HDR Ecological Equation  
Project Manager: Bill Davidson  
Phone: (514) 423-3945

Report Date: 11/25/2019  
Order No.: 1910110  
Analysis Date: 11/22/2019

### GC FID Analysis - Units in ppm

Analyst: SLF

Samples agitated occasionally for 2 days at 20 ± 2 °C

Sampling ID	1910110-01A Depth 9500 ( ppm)	1910110-02A Depth 10,500 ( ppm)	1910110-03A Depth 11,500 ( ppm)
Initial Total hydrocarbons	285,900	59,700	166,700
Sample: Bioglass Extract			
<b>1:2</b>	<b>40,500</b>		<b>23,650</b>
<b>1:1</b>		<b>12,150</b>	
<b>1:1.5</b>		<b>5,950</b>	
<b>1:4</b>	<b>6,200</b>		
<b>1:3</b>			<b>8,390</b>

TPH Target: Under 10,000 ppm( <1% of total hydrocarbons).

Reviewed by:

Reddy Gosala, Ph.D  
Laboratory Director

### Report of Laboratory Analysis

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ALAMO ANALYTICAL  
LABORATORIES LTD.

CHAIN OF CUSTODY  
RECORD

COC#: 028031

ZIP 78681

MUST BE COMPLETED BY CLIENT

Main Office: 10526 Guildale  
San Antonio, Texas 78216  
(210) 340-8121 • Fax (210) 340-8123

Branch: 2500 Montana Avenue  
El Paso, Texas 79903  
(915) 599-2182

www.alamoanalytical.com  
reports@alamoanalytical.com

Client's Name: HRD Ecological Equations  
 Clients P.O. #: \_\_\_\_\_  
 Project Manager: BILL DAVIDSON  
 Phone #: \_\_\_\_\_  
 Address: PO BOX 2196 BOUND ROCK TX  
 Email: \_\_\_\_\_  
 Project Number: BILL 512 423-3945  
 Project Name: AAREN 512 413  
 Project Location: Charro well in Hebberville TX  
 Turnaround time: Standard (7)  (in working days)  
 RUSH: 1  2  3-5  Days (additional charges)  
 TRRP 13 Report: Yes  No  (additional charges)  
 AHA  Permit Compliance: Yes  No   
 DMR Form Required: Yes  No

LAB ID# (Do not use)	Sampling		Matrix	FIELD ID#	FIELD DESCRIPTION	No of Containers	ANALYSIS	REMARKS (Preservation, Size/Amount, Etc.)
	Date	Time						
191010	08	1435			Depth 9500	1		
191025	08	25			Depth 14500	1		
191025	08	25			Depth 11500	1		

Relinquished by: (Signature / Print Name) [Signature]  
 Received by: (Signature) [Signature] Date 28 Time 1145

Relinquished by: (Signature / Print Name) \_\_\_\_\_  
 Received by: (Signature) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Relinquished by: (Signature / Print Name) \_\_\_\_\_  
 Received by: (Signature) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Relinquished by: (Signature / Print Name) \_\_\_\_\_  
 Received by: (Signature) [Signature] Date 10/28/19 Time 1145

Headspace Properly Sealed <input checked="" type="checkbox"/>	If Yes, Amt. <u>NA</u>
Chilled ≤4° C <input checked="" type="checkbox"/>	If No, Explain _____

Comments: Email A. Hees @ hot mail . com



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2500 Montana Avenue  
El Paso, TX - 79903  
Ph. (915) 599-2182

## Sample Log-In Checklist

DATE: 10/28/19 TIME: 11:50 INITIALS: [Signature]

CLIENT: HRD Ecological Equations PROJECT: W.O.# 1910110

1. Is a Chain of Custody present?  Yes  No
2. Is a Chain of Custody properly completed?  Yes  No
3. Are custody seals present?  
If yes, are they intact?  Yes  No  
Are they on: Sample \_\_\_\_\_ or on Shipping Container \_\_\_\_\_
4. Are all samples tagged or labeled?  
If yes, do the labels match the Chain of Custody?  Yes  No
5. Do all shipping documents agree (i.e., number of coolers arrived vs. on tickets)  
If not, describe below.  Yes  No  N/A
6. Are samples preserved properly? If not, describe below.  Yes  No
7. Are all samples within holding times on arrival?  
If not, describe below.  Yes  No
8. Condition of shipping container: Intact \_\_\_\_\_ or \_\_\_\_\_
9. Condition of samples: Intact  or \_\_\_\_\_
10. Temperature of samples: Temp. (°C): 4.0 Corrected Temp. (°C): 4.0 Thermometer ID: DT1 or L2
11. pH strip lot#: \_\_\_\_\_ Samples out of pH range: \_\_\_\_\_
12. Delivery agent: Client  UPS  Fed-Ex  Lone Star  Alamo P/U  Other \_\_\_\_\_
13. Sample disposal: Return to client \_\_\_\_\_ Alamo Analytical Disposal

**Comments:** (Reference checklist item number from above, or for comments on resolution below):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ [Signature]

### Record of contacting client for resolution of sample discrepancies (first and retry contact) Contacted How?

Name: \_\_\_\_\_ Phone \_\_\_\_\_ Fax \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Time: \_\_\_\_\_  
Name: \_\_\_\_\_ Phone \_\_\_\_\_ Fax \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Time: \_\_\_\_\_

**CLIENT:** Quimica del Desierto

**Work Order:** 1910110

**Project:** Charro Well in Hebberville, TX

**QC SUMMARY REPORT**

Analyte	%REC				%REC		RPD		Low - High		RPD				
	BLK	SPK value	LCS	LCSD	RPD %	RPD Limit	MS	MSD	%	Limit	Limit	Parent	DUP	%	Limit
<b>Batch ID:</b> 8260B_S-11/22/2019	<b>TestName:</b> Volatile Organics by GC/MS														
<b>Run ID:</b> MISC_191122C	<b>Test Code:</b> SW8260B		<b>Units:</b> mg/Kg			<b>Analysis Date:</b> 11/22/2019				<b>Prep Date:</b> 11/22/2019					
1,1,1,2-Tetrachloroethane	<0.005														
1,1,1-Trichloroethane	<0.005	50	93.4%								42 - 177				
1,1,2,2-Tetrachloroethane	<0.005														
1,1,2-Trichloroethane	<0.005														
1,1-Dichloroethane	<0.005														
1,1-Dichloroethene	<0.005	50	102.6%								59 - 143				
1,1-Dichloropropene	<0.005														
1,2,3-Trichlorobenzene	<0.005														
1,2,3-Trichloropropane	<0.005														
1,2,4-Trichlorobenzene	<0.005														
1,2,4-Trimethylbenzene	<0.005														
1,2-Dibromo-3-chloropropane	<0.005														
1,2-Dibromoethane	<0.005														
1,2-Dichlorobenzene	<0.005														
1,2-Dichloroethane	<0.005														
1,2-Dichloropropane	<0.005														
1,3,5-Trimethylbenzene	<0.005														
1,3-Dichlorobenzene	<0.005														
1,3-Dichloropropane	<0.005														
1,4-Dichlorobenzene	<0.005														
2,2-Dichloropropane	<0.005														
2-Butanone	<0.01														
2-Chlorotoluene	<0.005														
2-Hexanone	<0.01														
4-Chlorotoluene	<0.005														
4-Isopropyltoluene	<0.005														
4-Methyl-2-pentanone	<0.01														
Acetone	<0.01														

**Approved by:**

**Laboratory QC Report**

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NELAP Certificate# San Antonio : T104704367-17-9

**CLIENT:** Quimica del Desierto

**Work Order:** 1910110

**Project:** Charro Well in Hebberville, TX

**QC SUMMARY REPORT**

Analyte	BLK	%REC			%REC		RPD		Low - High		RPD						
		SPK value	LCS	LCSD	RPD %	RPD Limit	MS	MSD	%	Limit	Limit	Parent	DUP	%	Limit		
Benzene	<0.005	50	97.4%										57 - 142				
Bromobenzene	<0.005																
Bromochloromethane	<0.005																
Bromodichloromethane	<0.005																
Bromoform	<0.005																
Bromomethane	<0.005																
Carbon disulfide	<0.005																
Carbon tetrachloride	<0.005																
Chlorobenzene	<0.005	50	117.4%										61 - 134				
Chloroethane	<0.005																
Chloroform	<0.005																
Chloromethane	<0.005																
cis-1,2-Dichloroethene	<0.005																
cis-1,3-Dichloropropene	<0.005																
Dibromochloromethane	<0.005																
Dibromomethane	<0.005																
Dichlorodifluoromethane	<0.005																
Ethylbenzene	<0.005																
Hexachlorobutadiene	<0.005																
Iodomethane	<0.005																
Isopropylbenzene	<0.005																
m,p-Xylenes	<0.01																
Methyl tert-butyl ether	<0.005	50	92.4%										54 - 170				
Methylene chloride	<0.005																
n-Butylbenzene	<0.005																
n-Propylbenzene	<0.005																
Naphthalene	<0.015																
o-Xylene	<0.005																
sec-Butylbenzene	<0.005																
Styrene	<0.005																
tert-Butylbenzene	<0.005																

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**Laboratory QC Report**

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NELAP Certificate# San Antonio : T104704367-17-9

**CLIENT:** Quimica del Desierto

**Work Order:** 1910110

**Project:** Charro Well in Hebberville, TX

**QC SUMMARY REPORT**

Analyte	BLK	SPK value	%REC				%REC		RPD		Low - High		RPD		
			LCS	LCSD	RPD %	RPD Limit	MS	MSD	%	Limit	Limit	Parent	DUP	%	Limit
Tetrachloroethene	<0.005														
Toluene	<0.005	50	100.6%									53 - 145			
trans-1,2-Dichloroethene	<0.005														
trans-1,3-Dichloropropene	<0.01														
Trichloroethene	<0.005	50	97.4%									61 - 133			
Trichlorofluoromethane	<0.005														
Vinyl chloride	<0.005														
<b>Batch ID:</b> HG_R_S-11/21/2019		<b>TestName:</b> MERCURY, TOTAL													
<b>Run ID:</b> HG_191121A		<b>Test Code:</b> SW7471A				<b>Units:</b> mg/Kg		<b>Analysis Date:</b> 11/21/2019				<b>Prep Date:</b> 11/21/2019			
Mercury	<0.04	0.5	96.8%	96.8%	0.000	25.0	75.6%	72.8%	3.000	25.0		77 - 120			
<b>Batch ID:</b> HG_R_S-11/26/2019		<b>TestName:</b> MERCURY, TOTAL													
<b>Run ID:</b> HG_191126F		<b>Test Code:</b> SW7471A				<b>Units:</b> mg/Kg		<b>Analysis Date:</b> 11/26/2019				<b>Prep Date:</b> 11/26/2019			
Mercury	<0.04	0.5	96.8%	95.8%	1.000	25.0						77 - 120			
<b>Batch ID:</b> HG_R_S-11/26/2019		<b>TestName:</b> MERCURY, TOTAL													
<b>Run ID:</b> ICP_191126B		<b>Test Code:</b> SW7471A				<b>Units:</b> mg/Kg		<b>Analysis Date:</b> 11/26/2019				<b>Prep Date:</b> 11/26/2019			
Mercury	<0.04	0.5	0.0%	0.0%	0.000	25.0						77 - 120			
<b>Batch ID:</b> HG_R_W-11/26/2019		<b>TestName:</b> MERCURY, TOTAL													
<b>Run ID:</b> HG_191126C		<b>Test Code:</b> SW7470A				<b>Units:</b> mg/L		<b>Analysis Date:</b> 11/26/2019				<b>Prep Date:</b> 11/26/2019			
Mercury	<0.0002	0.005	96.0%	100.0%	4.000	15.0						77 - 120			

**Approved by:**

**Laboratory QC Report**

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NELAP Certificate# San Antonio : T104704367-17-9



**CLIENT:** Quimica del Desierto

**Work Order:** 1910110

**Project:** Charro Well in Hebberville, TX

**QC SUMMARY REPORT**

Analyte	%REC						%REC			RPD	Low - High	RPD			
	BLK	SPK value	LCS	LCSD	RPD %	RPD Limit	MS	MSD	%	Limit	Limit	Parent	DUP	%	Limit
<b>Batch ID:</b> ICP_RS-11/22/2019	<b>TestName:</b> METALS, Total by ICP														
<b>Run ID:</b> ICP_191122A	<b>Test Code:</b> SW6010B		<b>Units:</b> mg/Kg				<b>Analysis Date:</b> 11/22/2019				<b>Prep Date:</b> 11/22/2019				
Arsenic	<2.5	50	85.2%	86.8%	2.000	25.0					80 - 120				
Barium	<1	50	102.2%	106.2%	4.000	25.0					80 - 120				
Cadmium	<0.5	50	98.6%	118.2%	18.000	25.0					80 - 120				
Chromium	<1	50	97.6%	99.8%	2.000	25.0					80 - 120				
Copper	<2	50	98.2%	97.2%	1.000	25.0					80 - 120				
Lead	<1.5	50	100.2%	96.6%	4.000	25.0					80 - 120				
Manganese	<0.4	50	99.8%	102.2%	2.000	25.0					80 - 120				
Nickel	<1	50	97.8%	95.6%	2.000	25.0					80 - 120				
Selenium	<2.5	50	86.0%	88.0%	2.000	25.0					80 - 120				
Silver	<0.78	50	85.2%	90.2%	6.000	25.0					80 - 120				
Zinc	<1	50	101.8%	100.8%	1.000	25.0					80 - 120				
<b>Batch ID:</b> ICP_RS-11/27/2019	<b>TestName:</b> METALS, Total by ICP														
<b>Run ID:</b> ICP_191127B	<b>Test Code:</b> SW6010B		<b>Units:</b> mg/Kg				<b>Analysis Date:</b> 11/27/2019				<b>Prep Date:</b> 11/26/2019				
Arsenic	<2.5	50	105.4%	96.6%	9.000	25.0					80 - 120				
Barium	<1	50	102.4%	100.8%	2.000	25.0					80 - 120				
Cadmium	<0.5	50	101.6%	100.0%	2.000	25.0					80 - 120				
Chromium	<1	50	101.6%	100.8%	1.000	25.0					80 - 120				
Copper	<2	50	103.0%	101.2%	2.000	25.0					80 - 120				
Lead	<1.5	50	101.4%	98.2%	3.000	25.0					80 - 120				
Manganese	<0.4	50	101.2%	102.8%	2.000	25.0					80 - 120				
Nickel	<1	50	99.2%	99.0%	0.000	25.0					80 - 120				
Selenium	<2.5	50	83.4%	93.4%	11.000	25.0					80 - 120				
Silver	<0.78	50	95.2%	96.8%	2.000	25.0					80 - 120				
Zinc	<1	50	107.4%	104.6%	3.000	25.0					80 - 120				

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**Laboratory QC Report**

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NELAP Certificate# San Antonio : T104704367-17-9

**CLIENT:** Quimica del Desierto

**Work Order:** 1910110

**Project:** Charro Well in Hebberville, TX

**QC SUMMARY REPORT**

Analyte	%REC			%REC		RPD		Low - High		RPD					
	BLK	SPK value	LCS	LCSD	RPD %	RPD Limit	MS	MSD	%	Limit	Limit	Parent	DUP	%	Limit
<b>Batch ID:</b> SVOC1_191130A	<b>TestName:</b> Semi-volatile Organics by GC/MS														
<b>Run ID:</b> SVOC1_191130A	<b>Test Code:</b> SW8270C		<b>Units:</b> mg/Kg			<b>Analysis Date:</b> 11/29/2019 7:14:00 PM			<b>Prep Date:</b> 11/29/2019 10:00:0						
1,2,4-Trichlorobenzene	<0.33	1.67	65.2%								40 - 141				
1,2-Dichlorobenzene	<0.33														
1,3-Dichlorobenzene	<0.33														
1,4-Dichlorobenzene	<0.33	1.67	74.1%								10 - 176				
2,4,5-Trichlorophenol	<0.33														
2,4,6-Trichlorophenol	<0.33														
2,4-Dichlorophenol	<0.33														
2,4-Dimethylphenol	<0.33														
2,4-Dinitrophenol	<0.33														
2,4-Dinitrotoluene	<0.33	1.67	77.5%								38 - 183				
2,6-Dichlorophenol	<0.33														
2,6-Dinitrotoluene	<0.33														
2-Chloronaphthalene	<0.33														
2-Chlorophenol	<0.33	1.67	75.9%								22 - 164				
2-Methylnaphthalene	<0.33														
2-Methylphenol	<0.33														
2-Nitrophenol	<0.33														
4,6-Dinitro-2-methylphenol	<0.33														
4-Bromophenyl phenyl ether	<0.33														
4-Chloro-3-methylphenol	<0.33	1.67	58.1%								43 - 144				
4-Chloroaniline	<0.33														
4-Chlorophenyl phenyl ether	<0.33														
4-Methylphenol	<0.33														
4-Nitrophenol	<0.33	1.67	76.3%								10 - 168				
Acenaphthene	<0.33	1.67	79.2%								54 - 130				
Acenaphthylene	<0.33														
Anthracene	<0.33														
Benzo(a)anthracene	<0.33														

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**Laboratory QC Report**

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**CLIENT:** Quimica del Desierto

**Work Order:** 1910110

**Project:** Charro Well in Hebberville, TX

**QC SUMMARY REPORT**

Analyte	BLK	%REC				%REC		RPD		Low - High		RPD			
		SPK value	LCS	LCSD	RPD %	RPD Limit	MS	MSD	%	Limit	Limit	Parent	DUP	%	Limit
Benzo(a)pyrene	<0.33														
Benzo(b)fluoranthene	<0.33														
Benzo(g,h,i)perylene	<0.33														
Benzo(k)fluoranthene	<0.33														
Bis(2-chloroethoxy)methane	<0.33														
Bis(2-chloroethyl)ether	<0.33														
Bis(2-chloroisopropyl)ether	<0.33														
Bis(2-ethylhexyl)phthalate	<0.33														
Butyl benzyl phthalate	<0.33														
Chrysene	<0.33														
Di-n-butyl phthalate	<0.33														
Di-n-octyl phthalate	<0.33														
Dibenz(a,h)anthracene	<0.33														
Dibenzofuran	<0.33														
Diethyl phthalate	<0.33														
Dimethyl phthalate	<0.33														
Fluoranthene	<0.33														
Fluorene	<0.33														
Hexachlorobenzene	<0.33														
Hexachlorobutadiene	<0.33														
Hexachlorocyclopentadiene	<0.33														
Hexachloroethane	<0.33														
Indeno(1,2,3-cd)pyrene	<0.33														
Isophorone	<0.33														
N-Nitrosodi-n-propylamine	<0.33	1.67	92.3%									13 - 166			
N-Nitrosodimethylamine	<0.33														
N-Nitrosodiphenylamine	<0.33														
Naphthalene	<0.33														
Nitrobenzene	<0.33														
Pentachlorophenol	<0.33	1.67	59.9%									24 - 146			
Phenanthrene	<0.33														

**Approved by:**

**Laboratory QC Report**

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NELAP Certificate# San Antonio : T104704367-17-9

**CLIENT:** Quimica del Desierto

**Work Order:** 1910110

**Project:** Charro Well in Hebberville, TX

**QC SUMMARY REPORT**

Analyte	%REC				%REC		RPD		Low - High		RPD				
	BLK	SPK value	LCS	LCSD	RPD %	RPD Limit	MS	MSD	%	Limit	Limit	Parent	DUP	%	Limit
Phenol	<0.33	1.67	83.6%								10 - 186				
Pyrene	<0.33	1.67	81.6%								10 - 130				
3-Methylphenol	<0.66														

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**Laboratory QC Report**

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NELAP Certificate# San Antonio : T104704367-17-9



ZIP 78681

MUST BE COMPLETED BY CLIENT

Alamo's Client: <b>HRD Ecological Equations</b>	Client's PO #: <b>46</b>	Turnaround time: Standard(7) <input checked="" type="checkbox"/> (in working days)
Project Manager: <b>Bill Davidson</b>	Phone #: <b>AARON Hees</b>	RUSH: 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3-5 <input type="checkbox"/> Days (additional charges)
Address: <b>P.O. Box 2196 Round Rock TX</b>	Email: <b>AARON@HRDECOLOGICALEQUATIONS.COM</b>	TRRP 13 Report: Yes <input type="checkbox"/> No <input type="checkbox"/> (additional charges)
Project Number: <b>Bill 512 423-3945</b>	Project Name: <b>AARON 512 413</b>	Analysis for Permit Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/>
Project Location: <b>Charro well in Hebberville</b>	Sampler Signature: <i>[Signature]</i>	DMR Form Required: Yes <input type="checkbox"/> No <input type="checkbox"/>

Main Office: 10526 Gulfdale  
San Antonio, Texas 78216  
(210) 340-8121 • Fax (210) 340-8123

Branch: 2500 Montana Avenue  
El Paso, Texas 79903  
(915) 599-2182

www.alamoanalytical.com  
reports@alamoanalytical.com

LAB ID# (Do not use)	Sampling		Composite	Grab	Matrix	FIELD ID#	FIELD DESCRIPTION	No. of Containers	ANALYSIS						REMARKS (Preservation, Size/Amount, Etc.)
	Date	Time							/ / / / / /						
1910110-01	11/25						Depth 9500	1							
1910110-02	25						Depth 10,500	1							
1910110-03	25						Depth 11,500	1							
Relinquished by: (Signature / Print Name) <i>A. Hees</i>			Date	Time	Received by: (Signature)										
			28	1145											
Relinquished by: (Signature / Print Name)			Date	Time	Received by: (Signature)										
Relinquished by: (Signature / Print Name)			Date	Time	Received by: (Signature)										
Relinquished by: (Signature / Print Name)			Date	Time	Received by: (Signature)										
			10/28/19	1145	<i>[Signature]</i>										

Headspace  NA If Yes, Amt. \_\_\_\_\_  
 Properly Sealed  If No, Explain \_\_\_\_\_  
 Chilled ≤4° C  If No, Temp. \_\_\_\_\_

Comments:  
Email A.Hees@hot mail . com



# ALAMO ANALYTICAL LABORATORIES, LTD.

10526 Gulfdale  
San Antonio, TX – 78216;  
Ph. (210) 340-8121; Fax: (210) 340-8123

[www.alamoanalytical.com](http://www.alamoanalytical.com)

2500 Montana Avenue  
El Paso, TX – 79903  
Ph. (915) 599-2182

## Sample Log-In Checklist

DATE: 10/28/19 TIME: 11:50 INITIALS: [Signature]

CLIENT: HRD Ecological Equations PROJECT: W.O# 1910110

1. Is a Chain of Custody present?  Yes  No
2. Is a Chain of Custody properly completed?  Yes  No
3. Are custody seals present?  Yes  No  
*If yes, are they intact?*  Yes  No  
 Are they on: Sample \_\_\_\_\_ or on Shipping Container \_\_\_\_\_
4. Are all samples tagged or labeled?  Yes  No  
*If yes, do the labels match the Chain of Custody?*  Yes  No
5. Do all shipping documents agree (i.e., number of coolers arrived vs. on tickets)  Yes  No  
*If not, describe below.*  Yes  N/A
6. Are samples preserved properly? *If not, describe below.*  Yes  No
7. Are all samples within holding times on arrival?  Yes  No  
*If not, describe below.*
8. Condition of shipping container: Intact \_\_\_\_\_ or \_\_\_\_\_
9. Condition of samples: Intact  or \_\_\_\_\_
10. Temperature of samples: Temp. (°C): 4.0 Corrected Temp. (°C): 4.0 Thermometer ID: DT1 or L2
11. pH strip lot#: \_\_\_\_\_ Samples out of pH range: \_\_\_\_\_
12. Delivery agent: Client (  UPS  Fed-Ex  Lone Star  Alamo P/U  Other \_\_\_\_\_
13. Sample disposal: Return to client \_\_\_\_\_ Alamo Analytical Disposal

**Comments:** (Reference checklist item number from above, or for comments on resolution below):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ Soled.

### Record of contacting client for resolution of sample discrepancies (first and retry contact) Contacted How?

Name: \_\_\_\_\_ Phone \_\_\_\_\_ Fax \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Time: \_\_\_\_\_  
Name: \_\_\_\_\_ Phone \_\_\_\_\_ Fax \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Time: \_\_\_\_\_