



July 7, 2020

Mike Bratcher  
Oil Conservation Division, District 2  
811 S First St.  
Artesia, NM 88210

## **Work Plan**

**Vasquez #001**  
**RP#: 2RP-5702**  
**Incident#: NRM1932257155**  
**DOR: October 9, 2019**  
**GPS: 32.2315331 -104.0559235**  
**Unit Letter J, Section 11, Township 24 South, Range 28 East**  
**Eddy County, New Mexico**

To Whom It May Concern,

COG Operating, LLC (COG) is pleased to submit the following work plan in response to a release that occurred at the Vasquez #001 tank battery. The release is located in Unit Letter J, Section 11, Township 24 South and Range 28 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.2315331 North and -104.0559235 West.

## **BACKGROUND**

The release was discovered on October 9, 2019. A C-141 initial report was submitted to the New Mexico Oil Conservation Division (NMOCD). The initial C-141 is presented in Appendix A. Due to internal corrosion of a tank, a release of approximately forty-two (42) barrels (bbls) of produced water occurred inside of the unlined containment. Fluid leached through the earthen berm and impacted the well pad east of the containment.

On May 15, 2020, a geo-probe was utilized to vertically delineate the impacted area and collect background samples from the surrounding area.

## GROUNDWATER AND REGULATORY FRAMEWORK

According to the United States Geological Survey (USGS) the nearest water well (321343104025801) is located approximately 0.4 miles southeast of the release site and indicates that groundwater in the project vicinity is approximately thirty-six (36) feet below ground surface (BGS). The water well information is shown in Appendix B.

A risk based evaluation and site determinations were performed in accordance to the New Mexico Oil Conservation Division (NMOCD) Rule (Title 19 Chapter 15 Part 29) for releases on oil and gas development and production in New Mexico (effective August 14, 2018). According to the site characterization evaluation, no other receptors (water wells, playas, karst, water course, lake beds or ordinance boundaries) were located within each specific boundaries or distance from the site. The groundwater data and the site characterization evaluation data is summarized in Appendix B. The delineation and closure criteria are listed below:

### General Site Characterization and Groundwater:

Site Characterization	Average Groundwater Depth (ft.)
None Located	36 Feet

### Delineation and Closure Criteria:

Recommended Remedial Action Levels (RRALs)	
Chlorides	600 mg/kg
TPH (GRO and DRO and MRO)	100 mg/kg
TPH (GRO and DRO)	N/A
Benzene	10 mg/kg
Total BTEX	50 mg/kg

## PROPOSED WORK PLAN

- The impacted area in the vicinity of sample location SB-1 will be excavated to a depth of three (3) feet BGS.
- Due to the production equipment the impacted area inside of the berms of the tank battery will be deferred until abandonment of the facility.
- All of the excavated material will be hauled to an NMOCD approved solid waste disposal facility.
- The excavation will be backfilled with clean “like” material and contoured to match the surrounding terrain.

**SAMPLING PLAN**

Once the excavation is complete, confirmation soil samples will be collected from the excavated areas. To collect representative samples, composite samples (5-point composite) will be collected every 200 square feet from the bottom and sidewalls of the excavated area. The soil samples will be laboratory analyzed for the constituents of concern. Discrete soil samples will be collected from the excavation if any "hot spots" are encountered during the excavation.

**REMEDATION TIMEFRAME AND ESTIMATED VOLUME**

The remediation will be performed 90 days after the work plan has been approved. Approximately forty-seven (47) cubic yards of soil will be excavated and hauled offsite for proper disposal.

**SITE RECLAMATION AND RESTORATION**

All of the fluid remained on the well pad. No reclamation activities will be required at this site.

Should you have any questions or concerns on the proposed remediation activities, please do not hesitate to contact me.

Sincerely,

Sincerely,



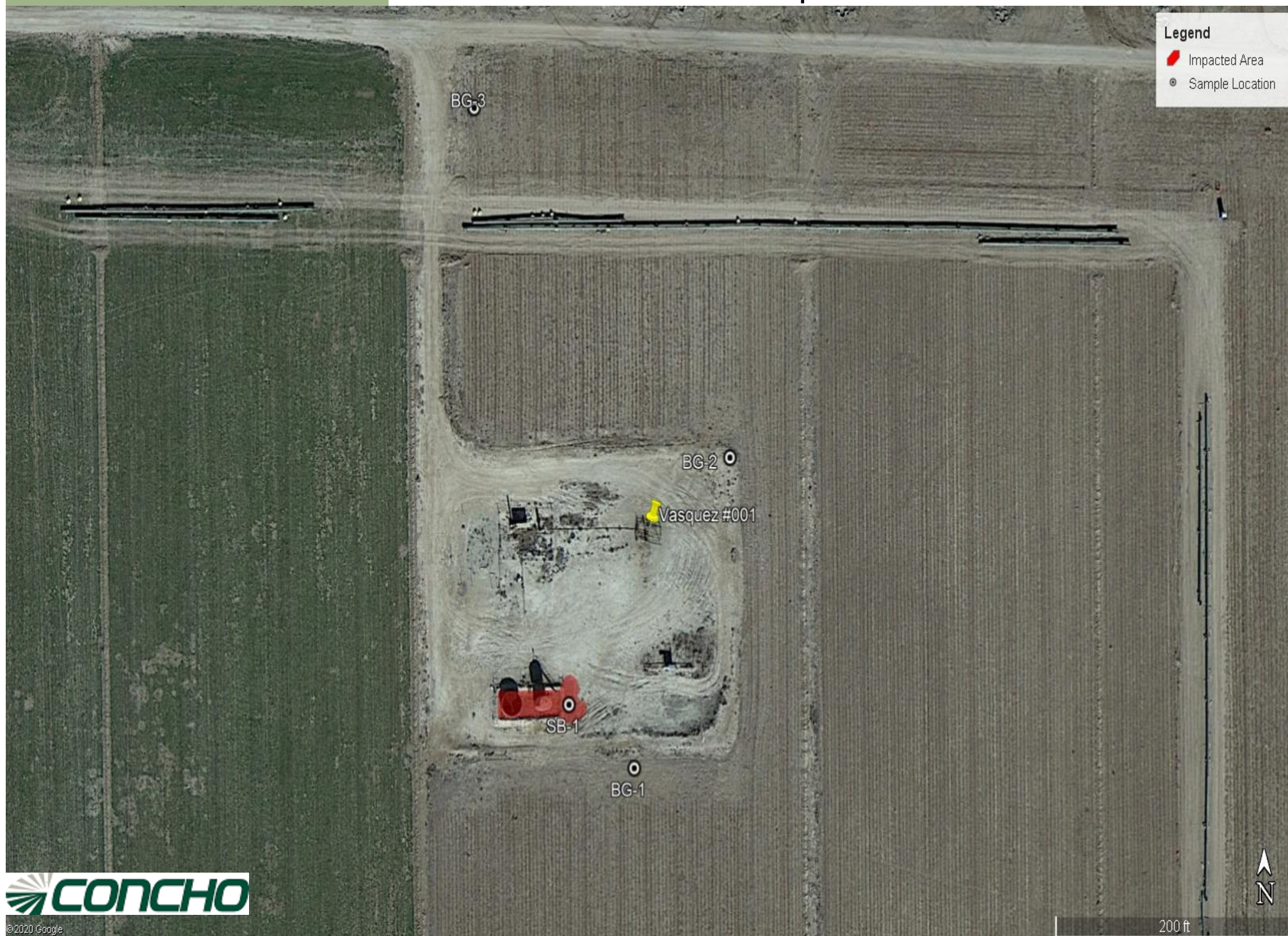
Sheldon L. Hitchcock  
HSE Coordinator  
[slhitchcock@concho.com](mailto:slhitchcock@concho.com)

# FIGURES



October 5, 2019

# Vasquez #001





October 5, 2019


# Vasquez #001



# TABLES

**Table 1**  
**COG Operating LLC.**  
**Vasquez #001**  
**Eddy County, New Mexico**

Sample ID	Sample Depth (ft)	Sample Date	Soil Status		TPH (mg/kg)							Benzene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	MRO	Total	GRO	DRO	Total			
NMOCD RRAL Limits (mg/kg)					-	-	-	2,500	-	-	1,000	10	50	20,000
SB-1	0-1	5/15/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.300	4,800
SB-1	2	5/15/2020	X		#	#	#	#	#	#	#	#	#	1,070
SB-1	3	5/15/2020	X		#	#	#	#	#	#	#	#	#	368
BG-1	0-1	5/15/2020	X		#	#	#	#	#	#	#	#	#	80
BG-1	2	5/15/2020	X		#	#	#	#	#	#	#	#	#	80
BG-1	3	5/15/2020	X		#	#	#	#	#	#	#	#	#	96
BG-1	4	5/15/2020	X		#	#	#	#	#	#	#	#	#	112
BG-1	5	5/15/2020	X		#	#	#	#	#	#	#	#	#	272
BG-1	6	5/15/2020	X		#	#	#	#	#	#	#	#	#	96
BG-1 R	7	5/15/2020	X		#	#	#	#	#	#	#	#	#	80
BG-2	0-1	5/15/2020	X		#	#	#	#	#	#	#	#	#	112
BG-2	2	5/15/2020	X		#	#	#	#	#	#	#	#	#	128
BG-2	3	5/15/2020	X		#	#	#	#	#	#	#	#	#	128
BG-2	4	5/15/2020	X		#	#	#	#	#	#	#	#	#	112
BG-2	5	5/15/2020	X		#	#	#	#	#	#	#	#	#	144
BG-2	6	5/15/2020	X		#	#	#	#	#	#	#	#	#	144
BG-2	7	5/15/2020	X		#	#	#	#	#	#	#	#	#	144
BG-2	8	5/15/2020	X		#	#	#	#	#	#	#	#	#	64
BG-2	9	5/15/2020	X		#	#	#	#	#	#	#	#	#	288
BG-2	10	5/15/2020	X		#	#	#	#	#	#	#	#	#	96
BG-2 R	11	5/15/2020	X		#	#	#	#	#	#	#	#	#	144
BG-3	0-1	5/15/2020	X		#	#	#	#	#	#	#	#	#	96
BG-3	2	5/15/2020	X		#	#	#	#	#	#	#	#	#	112
BG-3	3	5/15/2020	X		#	#	#	#	#	#	#	#	#	96
BG-3	4	5/15/2020	X		#	#	#	#	#	#	#	#	#	144
BG-3	5	5/15/2020	X		#	#	#	#	#	#	#	#	#	160
BG-3 R	6	5/15/2020	X		#	#	#	#	#	#	#	#	#	96
Avg BG Chloride	126.01													

 Proposed Excavation Depth  
 ( # ) Not Analyzed



# APPENDIX A

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural  
Resources Department  
  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

### Location of Release Source

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☐ Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

### Initial Response

*The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury*

<input type="checkbox"/> The source of the release has been stopped.	
<input type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: _____	Title: _____
Signature: <u>Sheldon Nitan</u>	Date: _____
email: _____	Telephone: _____
<b><u>OCD Only</u></b>	
Received by: _____	Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release?	_____ (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

### **Characterization Report Checklist:** *Each of the following items must be included in the report.*

- ☐ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☐ Field data
- ☐ Data table of soil contaminant concentration data
- ☐ Depth to water determination
- ☐ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☐ Boring or excavation logs
- ☐ Photographs including date and GIS information
- ☐ Topographic/Aerial maps
- ☐ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.



State of New Mexico  
Oil Conservation Division

Page 4

Incident ID	
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: Sheldon Nitan Date: \_\_\_\_\_

email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	
District RP	
Facility ID	
Application ID	

## Remediation Plan

**Remediation Plan Checklist:** *Each of the following items must be included in the plan.*

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

**Deferral Requests Only:** *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: Sheldon Nitan Date: \_\_\_\_\_

email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral ApprovedSignature:  Date: 09/10/2020

Incident ID	
District RP	
Facility ID	
Application ID	

## Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

**Closure Report Attachment Checklist:** *Each of the following items must be included in the closure report.*

- ☐ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☐ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: Sheldon Hittman Date: \_\_\_\_\_

email: \_\_\_\_\_ Telephone: \_\_\_\_\_

### OCD Only

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

# APPENDIX B



Legend

FEMA National Flood Hazard

Flood Hazard Zones

1% Annual Chance Flood Hazard

Regulatory Floodway

Special Floodway

Area of Undetermined Flood Hazard

0.2% Annual Chance Flood Hazard

Future Conditions 1% Annual Chance Flood Hazard

Area with Reduced Risk Due to Levee

COG - Environmental

Environmental

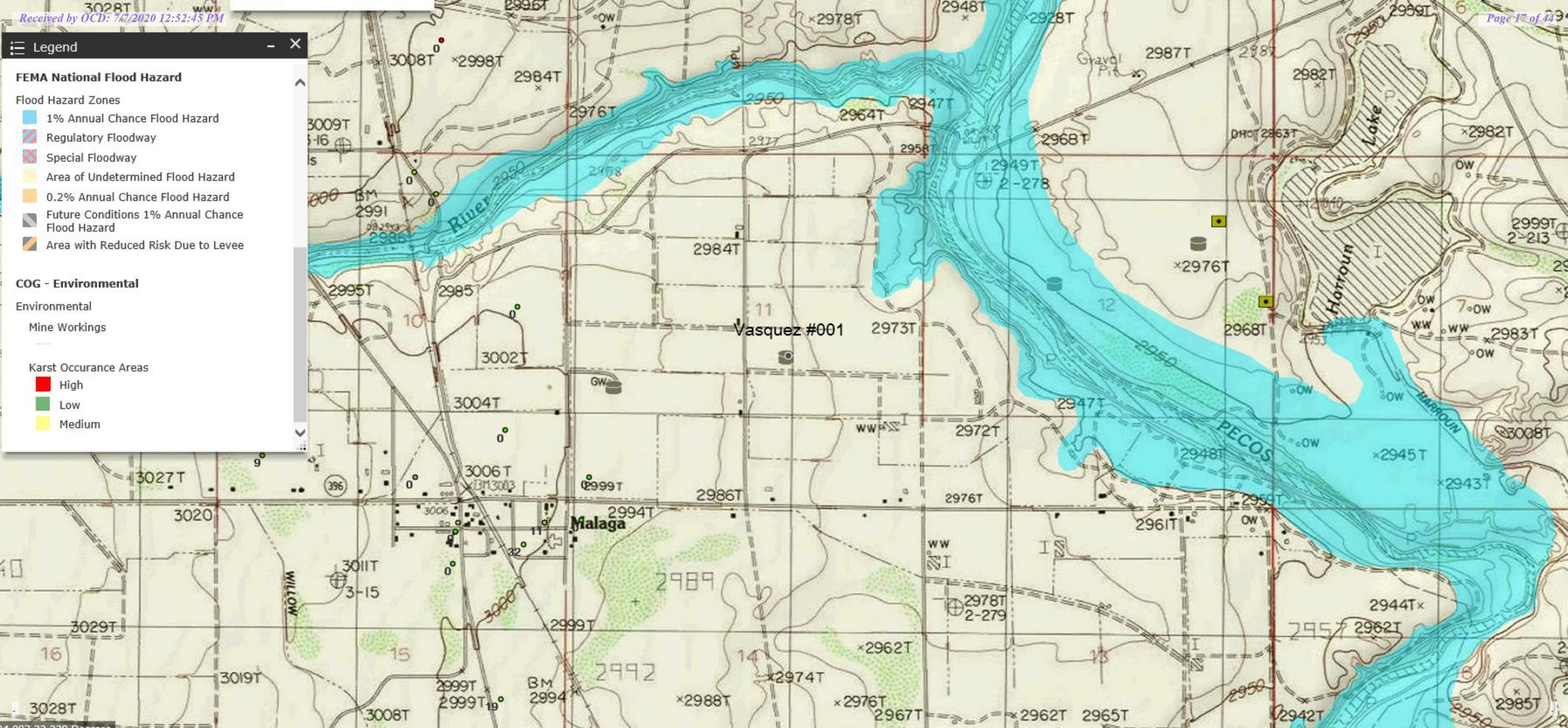
Mine Workings

Karst Occurance Areas

High

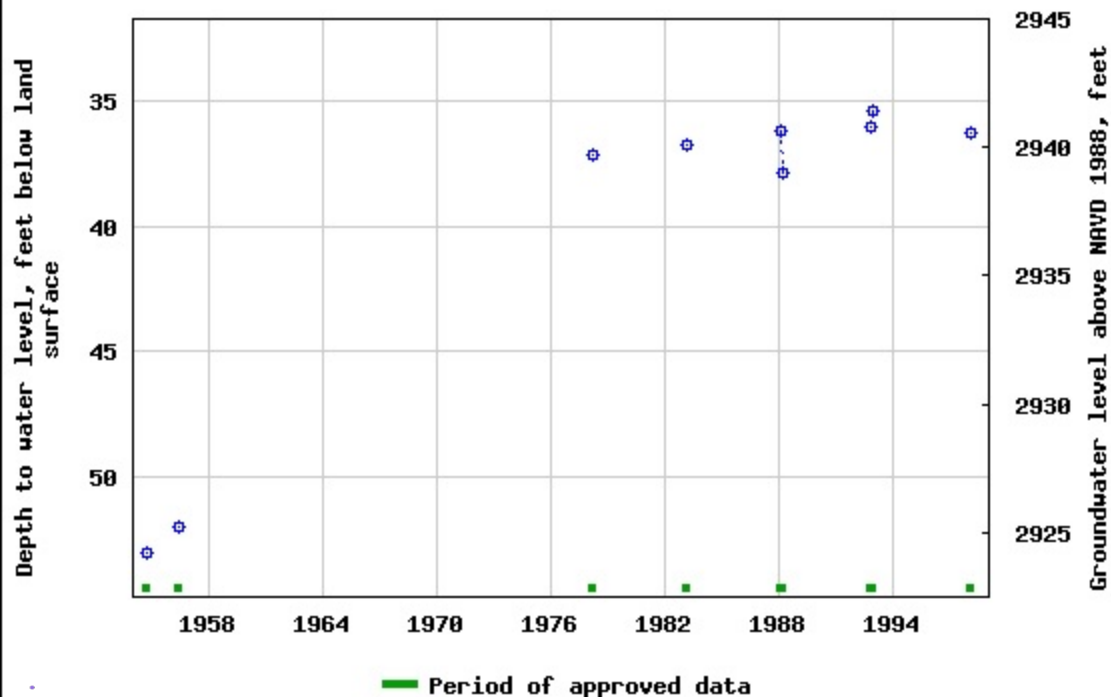
Low

Medium





## USGS 321343104025801 24S.28E.11.44211



# APPENDIX C



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

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May 21, 2020

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: VASQUEZ #001

Enclosed are the results of analyses for samples received by the laboratory on 05/20/20 14:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TALON LPE  
DAVID ADKINS  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 05/20/2020  
Reported: 05/21/2020  
Project Name: VASQUEZ #001  
Project Number: NONE GIVEN  
Project Location: COG - EDDY CO

Sampling Date: 05/15/2020  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SB - 1 0-1' (H001382-01)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/20/2020	ND	1.92	95.8	2.00	6.49	
Toluene*	<0.050	0.050	05/20/2020	ND	1.96	97.8	2.00	6.73	
Ethylbenzene*	<0.050	0.050	05/20/2020	ND	2.01	101	2.00	6.95	
Total Xylenes*	<0.150	0.150	05/20/2020	ND	5.87	97.8	6.00	7.05	
Total BTEX	<0.300	0.300	05/20/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4800	16.0	05/21/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/20/2020	ND	190	95.0	200	1.97	
DRO >C10-C28*	<10.0	10.0	05/20/2020	ND	186	93.1	200	4.33	
EXT DRO >C28-C36	<10.0	10.0	05/20/2020	ND					

Surrogate: 1-Chlorooctane 85.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 87.8 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TALON LPE  
 DAVID ADKINS  
 408 W. TEXAS AVE.  
 ARTESIA NM, 88210  
 Fax To: (575) 745-8905

Received: 05/20/2020  
 Reported: 05/21/2020  
 Project Name: VASQUEZ #001  
 Project Number: NONE GIVEN  
 Project Location: COG - EDDY CO

Sampling Date: 05/15/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SB - 1 2' (H001382-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1070	16.0	05/21/2020	ND	432	108	400	0.00		

**Sample ID: SB - 1 3' (H001382-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	05/21/2020	ND	432	108	400	0.00	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

### Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

A handwritten signature in black ink, appearing to read "C. D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager

5 of 5 pages



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

Company Name: <u>Talou/LPG</u>		P.O. #:		BILL TO		ANALYSIS REQUEST	
Project Manager: <u>D-HOKUS</u>		Company: <u>COG</u>					
Address: <u>408 W TEXAS AVE</u>		Attn: <u>Sheldon Hitecock</u>					
City: <u>Artesia</u> State: <u>NM</u> Zip: <u>88210</u>		Address:					
Phone #: _____ Fax #: _____		City:					
Project #: _____ Project Owner: <u>COG</u>		State:					
Project Name: <u>Vasquez #001</u>		Zip:					
Project Location: <u>Eddy County, NM</u>		Phone #:					
Sampler Name: <u>M Collier</u>		Fax #:					
FOR LAB USE ONLY		MATRIX		PRESERV.		SAMPLING	
Lab I.D. Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS			
GROUNDWATER		WASTEWATER		SOIL			
OIL		SLUDGE		OTHER :			
ACID/BASE:		ICE / COOL		OTHER :			
DATE		TIME					
5/15/20							
TOTAL chlorides							
TPH							
BTX							

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Relinquished By: <u>MLL CLK</u>	Date: <u>5-10-20</u>	Received By: <u>[Signature]</u>	Date: <u>5-10-20</u>
Relinquished By: <u>MLL CLK</u>	Date: <u>5-10-20</u>	Received By: <u>[Signature]</u>	Date: <u>5-10-20</u>
Relinquished By: <u>MLL CLK</u>	Date: <u>5-10-20</u>	Received By: <u>[Signature]</u>	Date: <u>5-10-20</u>

Delivered By: (Circle One) UPS 4.30 #113 4.30

Sampler - UPS - Bus - Other: 4.30 #113 4.30

Sample Condition: ☒ Cool ☐ Intact ☐ Yes ☐ No

CHECKED BY: [Signature] (Initials) 4.30

REMARKS: P-1 of 1.

Phone Result: ☐ Yes ☐ No Add'l Phone #: \_\_\_\_\_

Fax Result: ☐ Yes ☐ No Add'l Fax #: \_\_\_\_\_



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

May 21, 2020

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: VASQUEZ #001

Enclosed are the results of analyses for samples received by the laboratory on 05/20/20 14:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TALON LPE  
 DAVID ADKINS  
 408 W. TEXAS AVE.  
 ARTESIA NM, 88210  
 Fax To: (575) 745-8905

Received:	05/20/2020	Sampling Date:	05/15/2020
Reported:	05/21/2020	Sampling Type:	Soil
Project Name:	VASQUEZ #001	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - SHELDON H.		

**Sample ID: BG - 1 0-1' (H001380-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/21/2020	ND	432	108	400	0.00	

**Sample ID: BG - 1 2' (H001380-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/21/2020	ND	432	108	400	0.00	

**Sample ID: BG - 1 3' (H001380-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	05/21/2020	ND	432	108	400	0.00	

**Sample ID: BG - 1 4' (H001380-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	05/21/2020	ND	432	108	400	0.00	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TALON LPE  
DAVID ADKINS  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 05/20/2020  
Reported: 05/21/2020  
Project Name: VASQUEZ #001  
Project Number: NONE GIVEN  
Project Location: COG - SHELDON H.

Sampling Date: 05/15/2020  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: BG - 1 5' (H001380-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	05/21/2020	ND	432	108	400	0.00		

**Sample ID: BG - 1 6' (H001380-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	05/21/2020	ND	432	108	400	0.00		

**Sample ID: BG - 1 7' R (H001380-07)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	05/21/2020	ND	432	108	400	0.00		

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Celey D. Keene, Lab Director/Quality Manager



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---

### Notes and Definitions

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RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

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A handwritten signature in cursive script, appearing to read "Celey D. Keene", written in black ink.

---

Celey D. Keene, Lab Director/Quality Manager



CARDINAL  
Laboratories

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

**(575) 393-2326 FAX (575) 393-2476**

<b>Company Name:</b> Talon LPB <b>Project Manager:</b> D. ADKINS <b>Address:</b> 408 W. Texas Ave. <b>City:</b> Artesia <b>State:</b> NM <b>Zip:</b> 88210 <b>Phone #:</b> <b>Fax #:</b> <b>Project #:</b> <b>Project Owner:</b> COG <b>Project Name:</b> Vasquez #001 <b>Project Location:</b> Gaddy Dr, NM <b>Sample Name:</b> M. Collier				<b>P.O. #:</b> <b>Company:</b> COG <b>Attn:</b> Sheldon Hittcock <b>Address:</b> <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b>			
<b>BILL TO</b>							
<b>ANALYSIS REQUEST</b>							

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	TOTAL CHLORIDES
4001380	BG-1 0-1'		6										5/15/20		
1	BG-1 0-1'		1												
2	BG-1 2'		1												
3	BG-1 3'		1												
4	BG-1 4'		1												
5	BG-1 5'		1												
6	BG-1 6'		1												
7	BG-1 7'		1												

<b>Relinquished By:</b> <i>MLL</i> <b>Date:</b> 5-20-20 <b>Time:</b> 12:27 <b>Received By:</b> <i>[Signature]</i> <b>Date:</b> 5-20-20 <b>Time:</b> 14:30 <b>Sample Condition:</b> <input checked="" type="checkbox"/> Cool <input type="checkbox"/> Intact <b>CHECKED BY:</b> <i>[Signature]</i> <b>(Initials)</b> <i>Y. 10</i>				<b>REMARKS:</b> P. 1 of 1.			
--	--	--	--	-------------------------------	--	--	--



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

May 21, 2020

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: VASQUEZ #001

Enclosed are the results of analyses for samples received by the laboratory on 05/20/20 14:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

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Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TALON LPE  
 DAVID ADKINS  
 408 W. TEXAS AVE.  
 ARTESIA NM, 88210  
 Fax To: (575) 745-8905

Received: 05/20/2020  
 Reported: 05/21/2020  
 Project Name: VASQUEZ #001  
 Project Number: NONE GIVEN  
 Project Location: COG - EDDY CO

Sampling Date: 05/15/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BG - 2 0-1' (H001384-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	05/21/2020	ND	400	100	400	7.69	

**Sample ID: BG - 2 2' (H001384-02)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	05/21/2020	ND	400	100	400	7.69	

**Sample ID: BG - 2 3' (H001384-03)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	05/21/2020	ND	400	100	400	7.69	

**Sample ID: BG - 2 4' (H001384-04)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	05/21/2020	ND	400	100	400	7.69	

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TALON LPE  
DAVID ADKINS  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 05/20/2020  
Reported: 05/21/2020  
Project Name: VASQUEZ #001  
Project Number: NONE GIVEN  
Project Location: COG - EDDY CO

Sampling Date: 05/15/2020  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: BG - 2 5' (H001384-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	05/21/2020	ND	400	100	400	7.69		

**Sample ID: BG - 2 6' (H001384-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	05/21/2020	ND	400	100	400	7.69	

**Sample ID: BG - 2 7' (H001384-07)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	05/21/2020	ND	400	100	400	7.69		

**Sample ID: BG - 2 8' (H001384-08)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	05/21/2020	ND	400	100	400	7.69	

**Sample ID: BG - 2 9' (H001384-09)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	05/21/2020	ND	400	100	400	7.69	

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TALON LPE  
 DAVID ADKINS  
 408 W. TEXAS AVE.  
 ARTESIA NM, 88210  
 Fax To: (575) 745-8905

Received: 05/20/2020  
 Reported: 05/21/2020  
 Project Name: VASQUEZ #001  
 Project Number: NONE GIVEN  
 Project Location: COG - EDDY CO

Sampling Date: 05/15/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BG - 2 10' (H001384-10)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	05/21/2020	ND	400	100	400	7.69	

**Sample ID: BG - 2 11' R (H001384-11)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	05/21/2020	ND	400	100	400	7.69	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



---

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

### Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

Cardinal Laboratories

\*=Accredited Analyte

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A handwritten signature in cursive script, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

TAHOE / LPE

PO#

# BILL TO

ANALYSIS REQUEST

Company Name: TAVO / LPE

Project Manager: D. Adkins

Address: 408 W. Texas Ave.

City: Artesia

Phone #.:

Fax #:

Project #

Project

Project Name:

Vasquez #001

Project Location:

**Sampler Name:**

FOR LAB USE ONLY

**Lab I.D.**

**Sample I.D.**

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**Cardinal's Liability and Client's Damages.** Cardinal's liability and client's damages.

cardinal be liable for incidental or consequential

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• Chlorophyll is the green pigment in plants that captures light energy.

- Bus - Other: 4

**I cannot accept verbal char**

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† Cardinal cannot accept verbal changes. Please fax written changes to (603) 253-2200.



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

TOTAL CHLORIDES

[illegible]

### SAMPLING

(Initials)

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

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May 21, 2020

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: VASQUEZ #001

Enclosed are the results of analyses for samples received by the laboratory on 05/20/20 14:39.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TALON LPE  
DAVID ADKINS  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 05/20/2020  
Reported: 05/21/2020  
Project Name: VASQUEZ #001  
Project Number: NONE GIVEN  
Project Location: COG - EDDY CO

Sampling Date: 05/15/2020  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: BG - 3 0-1' (H001381-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	05/21/2020	ND	432	108	400	0.00	

**Sample ID: BG - 3 2' (H001381-02)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	05/21/2020	ND	432	108	400	0.00	

**Sample ID: BG - 3 3' (H001381-03)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	05/21/2020	ND	432	108	400	0.00	

**Sample ID: BG - 3 4' (H001381-04)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	05/21/2020	ND	432	108	400	0.00	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TALON LPE  
 DAVID ADKINS  
 408 W. TEXAS AVE.  
 ARTESIA NM, 88210  
 Fax To: (575) 745-8905

Received: 05/20/2020  
 Reported: 05/21/2020  
 Project Name: VASQUEZ #001  
 Project Number: NONE GIVEN  
 Project Location: COG - EDDY CO

Sampling Date: 05/15/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BG - 3 5' (H001381-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	05/21/2020	ND	432	108	400	0.00	

**Sample ID: BG - 3 6' R (H001381-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	05/21/2020	ND	432	108	400	0.00	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

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### Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Cardinal Laboratories

\*=Accredited Analyte

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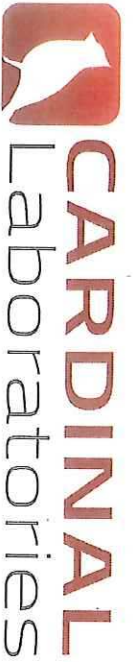
A handwritten signature in cursive script, appearing to read "Celey D. Keene".

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Celey D. Keene, Lab Director/Quality Manager



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## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

BILTO

ANALYSIS REQUEST

Company Name: <u>Talon / LPS</u>		P.O. #:	
Project Manager: <u>D. ADKINS</u>		Company: <u>CGG</u>	
Address: <u>408 W. Texas Ave.</u>		Attn: <u>Sheldon Hiteck</u>	
City: <u>Artesia</u>		Address:	
State: <u>NM</u> Zip: <u>88210</u>		City:	
Phone #:		State:	
Project #:		Zip:	
Project Name: <u>Vasquez #001</u>		Phone #:	
Project Location: <u>Edley Co, NM</u>		Fax #:	
Sampler Name: <u>M. Collier</u>			

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	TOTAL CHLORIDES
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :			
4001381	B6-3	0-1'	6	1								
1	B6-3	2'	1									
2	B6-3	3'	1									
3	B6-3	4'	1									
4	B6-3	5'	1									
5	B6-3	6'R	1									
6	B6-3	6'R	1									

Relinquished By: <u>M. Collier</u>	Date: <u>8-10-20</u>	Received By: <u>J. Collier</u>	Date: <u>8-10-20</u>
Time: <u>1430</u>	Time: <u>1430</u>	Time: <u>1430</u>	Time: <u>1430</u>
Delivered By: <u>(Circle One)</u>	Sample Condition	CHECKED BY: <u>(Initials)</u>	
Sampler - UPS	Cool <input type="checkbox"/> Intact <input type="checkbox"/>		
Bus - Other: <u>430 #115</u>	Yes <input type="checkbox"/> No <input type="checkbox"/>		
	Yes <input type="checkbox"/> No <input type="checkbox"/>		

Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>	Add'l Phone #: <u>9.1041</u>
Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>	Add'l Fax #: <u>9.1041</u>
REMARKS:	

# APPENDIX D



COG OPERATING LLC

VASQUEZ #1

UL J SEC.11-T24S-R28E

2310' FSL & 1980' FEL

EDDY COUNTY, NM

API #30-015-23850



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☼ 49°NE (T) ● 32°13.872', -104°3.375' ±16ft ▲ 2998ft



10 Oct 2019, 10:22:39