

The total spill volume was determined by using Hilcorp's monthly tank gauging data.



75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
jeremy.allen@greenanalytical.com

16 May 2025

Randall Klingler
Hilcorp
382 CR 3100
Aztec, NM 87410
RE: [none]

Enclosed are the results of analyses for samples received by the laboratory on 05/09/25 12:04. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads 'Jeremy D. Allen'.

Jeremy D Allen
Laboratory Director

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: TX-C25-00079

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: TX-C25-00101

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Hilcorp	Project: Braden Head	
382 CR 3100	Project Name / Number: [none]	Reported:
Aztec NM, 87410	Project Manager: Randall Klingler	05/16/25 15:21

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
Rhoda Abrams 1M Area 3	2505173-01	Water	05/09/25 11:00	05/09/25 12:04	
Storey B LS 3 Area 3	2505173-02	Water	05/09/25 11:30	05/09/25 12:04	

Green Analytical Laboratories

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Jeremy D Allen, Laboratory Director

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Hilcorp	Project: Braden Head	Reported: 05/16/25 15:21
382 CR 3100	Project Name / Number: [none]	
Aztec NM, 87410	Project Manager: Randall Klingler	

Rhoda Abrams 1M Area 3

2505173-01 (Produced Water)

Sampled Date: 05/09/25 11:00

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Chloride*	10000	200	99.4	mg/L	200	05/14/25 23:13	EPA 300.0		AWG
Total Dissolved Solids*	22700	40.0		mg/L	4	05/14/25 17:04	EPA 160.1/SM 2540C		HIC

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Jeremy D Allen, Laboratory Director

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Hilcorp	Project: Braden Head	Reported: 05/16/25 15:21
382 CR 3100	Project Name / Number: [none]	
Aztec NM, 87410	Project Manager: Randall Klingler	

Storey B LS 3 Area 3**2505173-02 (Produced Water)****Sampled Date: 05/09/25 11:30****Sampled By:**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Chloride*	9710	200	99.4	mg/L	200	05/14/25 23:38	EPA 300.0		AWG
Total Dissolved Solids*	21100	40.0		mg/L	4	05/14/25 17:06	EPA 160.1/SM 2540C		HIC

Green Analytical Laboratories

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Hilcorp
382 CR 3100
Aztec NM, 87410

Project: Braden Head
Project Name / Number: [none]
Project Manager: Randall Klingler

Reported:
05/16/25 15:21

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B251261 - IC- Ion Chromatograph										
Blank (B251261-BLK1)				Prepared & Analyzed: 05/14/25						
Chloride	ND	1.00	mg/L							
LCS (B251261-BS1)				Prepared & Analyzed: 05/14/25						
Chloride	25.4	1.00	mg/L	25.0		102	90-110			
LCS Dup (B251261-BSD1)				Prepared & Analyzed: 05/14/25						
Chloride	24.9	1.00	mg/L	25.0		99.7	90-110	1.92	20	
Batch B251265 - General Prep - Wet Chem										
Blank (B251265-BLK1)				Prepared & Analyzed: 05/14/25						
Total Dissolved Solids	ND	10.0	mg/L							
Reference (B251265-SRM1)				Prepared & Analyzed: 05/14/25						
Total Dissolved Solids	365	10.0	mg/L	400		91.2	85-115			

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis *Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

FORM-006, R 8.0

Note: Write-Out™ or similar products cannot be used on the Chain of Custody

Company or Client:		Hilcorp North		Bill to (if different):		ANALYSIS REQUEST															
Address:		382 Road 3100, Aztec, NM 87410				P.O. #:				Bradenhead											
City:		Aztec		State: NM Zip: 87410		Rush? <input checked="" type="checkbox"/> N <input type="checkbox"/> Y		TAT Needed? <input type="checkbox"/>		Formational		Complete API water analysis/Fe, Mn/Phosphate		PO4		Metals Fe/Mn		Corrosivity 9040C (PH)		TCLP RCRA Metals	
Phone #:		505-793-9011																			
Contact Person:		Randy Klingler																			
Email Report to:		Randall.Klingler@Hilcorp.com																			
Project Name(optional):																					
Sampler Name (Print):																					
Lab I.D. 2505-173 Lab Use Only		Sample Name or Location		Collected Date: 5/9/25 Time: 11:00am 1) Rhoda Abrams 1M Area 3 2) Storey B L S Area 3 3) 4) 5) 6) 7) 8) 9) 10)		Matrix (check one) <input type="checkbox"/> GROUNDWATER <input type="checkbox"/> SURFACE WATER <input type="checkbox"/> WASTEWATER <input checked="" type="checkbox"/> PRODUCED WATER <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> SOIL <input type="checkbox"/> OTHER: # of containers No preservation 1 Nitric Acid Hydrochloric Acid Sulfuric Acid Sodium Hydroxide OTHER:		Dissolved Chlorides Total Dissolved Solids		BTEX TCLP RCRA Metals Corrosivity 9040C (PH) Metals Fe/Mn PO4 Complete API water analysis/Fe, Mn/Phosphate Formational Bradenhead											

PLEASE NOTE: GAL'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 the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL within 30 days after completion of the applicable service. In no event shall GAL 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 services hereunder by GAL, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: Randy Klingler Date: 5/9/25 Received By: Michelle Clark Date: 5/9/25

Relinquished By: Michelle Clark Date: 5/12/25 Received By: Kangaroo TP Date: 5/12/25

Relinquished By: Kangaroo TP Date: 5/13/25 Received By: mmm Date: 5/13/25

Relinquished By: Kangaroo TP Date: 5/13/25 Received By: mmm Date: 5/13/25

† GAL cannot accept verbal changes. Please email changes to receiving@greenanalytical.com
* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.



Table of Contents

Date/Initials or person
examining contents: 5-13-25Labeled by initials: _____
(If different than above)

SAMPLE CONDITION RECEIPT FORM

Client Name: HilcorpWork Order # 2505-173Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☒ Kangaroo ☐ Third Party ☐ OtherCustody Seals on Box/Cooler Present: ☐ Yes ☒ No Seals Intact: ☐ Yes ☐ No GAL Cooler #: _____Thermometer Used: #2 Samples on ice, cooling process has begun: ☒ Yes ☐ NoType of Ice: ☒ Wet ☐ Blue ☐ None Cooler Temp: Observed Temp: 2.8 °C Correction Factor: -0.9 °C Final Temp: 1.9 °C

*Temp should be above freezing 6°C

Compliance: ☐ Yes ☒ No

Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
COC Signed when Relinquished and Received:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Sampler Name and Signature on COC: *Required for compliance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.
Samples arrived within hold time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4.
Correct Containers Used & Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
pH's acceptable upon receipt, where applicable: *Not including metals bottles	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9.
Dissolved Testing Needed: Field Filtered: <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	10.
Sample Labels match COC: -Includes Date/Time/ID Matrix: <u>WT</u> <u>SL</u> <u>OT</u>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11.
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12.
Trip Blank Custody Seals Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
VOA's meet headspace requirement (<6mm bubbles)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Non-Conformance(s):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	13.

Client Notification/Resolution:

Person Contacted: _____

Date/Time: _____

Comments/Resolution: _____

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS

Action 465054

QUESTIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 465054
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2512930293
Incident Name	NAPP2512930293 RHODA ABRAMS 1M @ 30-045-34150
Incident Type	Produced Water Release
Incident Status	Initial C-141 Received
Incident Well	[30-045-34150] RHODA ABRAMS #001M

Location of Release Source*Please answer all the questions in this group.*

Site Name	Rhoda Abrams 1M
Date Release Discovered	05/07/2025
Surface Owner	Federal

Incident Details*Please answer all the questions in this group.*

Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release*Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.*

Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure Tank (Any) Produced Water Released: 19 BBL Recovered: 18 BBL Lost: 1 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	On 5/7/2025 at 3:00 pm (MT), a Hilcorp operator discovered a 18.75-bbl produced water release from a 120-bbl pit tank. Upon further inspection by the operator, it was determined that a 1/2-inch hole had formed on the 120-bbl pit tank approximately 3.5-inches above the bottom of the pit tank. This hole was discovered after operations had drained produced water fluid from the adjacent 286-bbl condensate storage tank into the pit tank earlier in the day. When the operator re-visited the site later the same day, the operator heard water leaking at the pit tank. Three Rivers Trucking was called to the site to remove fluid from within secondary containment and the pit tank as well. Approximately 18 bbls of fluid was recovered by Three Rivers Trucking. However, 0.75-bbl of spilled fluid soaked into the soils/gravel beneath the pit tank. No spilled fluids migrated horizontally outside containment.**Note: General chemistry for the produced water fluids at Rhoda Abrams/Story B LS 3 indicate that dissolved chlorides are not greater than 10,000 mg/L.**

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QUESTIONS, Page 2

Action 465054

QUESTIONS (continued)

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 465054
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	No
Reasons why this would be considered a submission for a notification of a major release	Unavailable.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response

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

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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.

I hereby agree and sign off to the above statement	Name: Mitch Killough Title: Environmental Specialist Email: mkillough@hilcorp.com Date: 05/20/2025
--	---

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QUESTIONS, Page 3

Action 465054

QUESTIONS (continued)

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 465054
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

QUESTIONS

Site Characterization	
<i>Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Not answered.
What method was used to determine the depth to ground water	Not answered.
Did this release impact groundwater or surface water	Not answered.
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Not answered.
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Not answered.
An occupied permanent residence, school, hospital, institution, or church	Not answered.
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Not answered.
Any other fresh water well or spring	Not answered.
Incorporated municipal boundaries or a defined municipal fresh water well field	Not answered.
A wetland	Not answered.
A subsurface mine	Not answered.
An (non-karst) unstable area	Not answered.
Categorize the risk of this well / site being in a karst geology	Not answered.
A 100-year floodplain	Not answered.
Did the release impact areas not on an exploration, development, production, or storage site	Not answered.

Remediation Plan	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
Requesting a remediation plan approval with this submission	No
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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CONDITIONS

Action 465054

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Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 465054
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

CONDITIONS

Created By	Condition	Condition Date
scott.rodgers	None	5/20/2025