

***** LIQUID SPILLS - VOLUME CALCULATIONS *****

Location of spill: [30-025-33547] STATE #001

Date of Spill: 4/18/2022

If the leak/spill is associated with production equipment, i.e. - wellhead, stuffing box,

flowline, tank battery, production vessel, transfer pump, or storage tank place an "X" here: ☒

Input Data:

If spill volumes from measurement, i.e. metering, tank volumes, etc. are known enter the volumes here: OIL: 0.0000 BBL WATER: 0.0000 BBL

If "known" spill volumes are given, input data for the following "Area Calculations" is optional. The above will override the calculated volumes.

Total Area Calculations					Standing Liquid Calculations				
Total Surface Area	width	length	wet soil depth	oil (%)	Standing Liquid Area	width	length	liquid depth	oil (%)
Rectangle Area #1	50 ft X	50 ft X	3.00 in	0%	Rectangle Area #1	45 ft X	42 ft X	3 in	0%
Rectangle Area #2	0 ft X	0 ft X	0.00 in	0%	Rectangle Area #2	0 ft X	0 ft X	0 in	0%
Rectangle Area #3	0 ft X	0 ft X	0.00 in	0%	Rectangle Area #3	0 ft X	0 ft X	0 in	0%
Rectangle Area #4	0 ft X	0 ft X	0.00 in	0%	Rectangle Area #4	0 ft X	0 ft X	0 in	0%
Rectangle Area #5	0 ft X	0 ft X	0.00 in	0%	Rectangle Area #5	0 ft X	0 ft X	0 in	0%
Rectangle Area #6	0 ft X	0 ft X	0.00 in	0%	Rectangle Area #6	0 ft X	0 ft X	0 in	0%
Rectangle Area #7	0 ft X	0 ft X	0.00 in	0%	Rectangle Area #7	0 ft X	0 ft X	0 in	0%
Rectangle Area #8	0 ft X	0 ft X	0.00 in	0%	Rectangle Area #8	0 ft X	0 ft X	0 in	0%

okay

production system leak - DAILY PRODUCTION DATA REQUIRED

Average Daily Production: Oil BBL Water 0 BBL

Did leak occur before the separator?: ☐ YES ☒ N/A (place an "X")

Amount of Free Liquid Recovered: 85 BBL

okay

Percentage of Oil in Free Liquid Recovered: 0% (percentage)

Liquid holding factor *: 0.15 gal per gal

Use the following when the spill wets the grains of the soil.

* sand = .08 gallon liquid per gallon volume of soil.

* gravelly (caliche) loam = .14 gallon liquid per gallon volume of soil.

* sandy clay loam soil = .14 gallon liquid per gallon volume of soil.

* clay loam = .16 gallon liquid per gallon volume of soil.

Use the following when the liquid completely fills the pore space of the soil:

Occurs when the spill soaked soil is contained by barriers, natural (or not).

* gravelly (caliche) loam = .25 gallon liquid per gallon volume of soil.

* sandy loam = .5 gallon liquid per gallon volume of soil.

Saturated Soil Volume Calculations:

Total Solid/Liquid Volume: 2,500 sq. ft. H2O 625 cu. ft. OIL cu. ft.

Estimated Volumes Spilled

Liquid in Soil: H2O 16.7 BBL OIL 0.0 BBL
Free Liquid: 84.2 BBL 0.0 BBL
Totals: 100.846 BBL 0.000 BBL

Total Liquid Spill Liquid: 100.846 BBL 0.000 BBL

Recovered Volumes

Estimated oil recovered: 0.0 BBL check - okay
Estimated water recovered: 85.0 BBL check - okay

Free Liquid Volume Calculations:

Total Free Liquid Volume: 1,890 sq. ft. H2O 472.500 cu. ft. OIL .000 cu. ft.

Estimated Production Volumes Lost

Estimated Production Spilled: H2O 0.000000 BBL OIL 0.000000 BBL

Estimated Surface Damage

Surface Area: 2,500 sq. ft.
Surface Area: .0574 acre

Estimated Weights, and Volumes

Saturated Soil = 70,000 lbs 625 cu.ft. 23 cu.yds.
Total Liquid = 101 BBL 4,235.55 gallon 35,240 lbs

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 455648

QUESTIONS

Operator: KEY ENERGY SERVICES, LLC 1500 CityWest Boulevard Houston, TX 77042	OGRID: 19797
	Action Number: 455648
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2231664335
Incident Name	NAPP2231664335 STATE S BRINE WELL #1 @ 30-025-33547
Incident Type	Other
Incident Status	Initial C-141 Received
Incident Well	[30-025-33547] STATE #001
Incident Facility	[fCJC2134938257] BW-28 STATE BRINE WELL #1

Location of Release Source

Please answer all the questions in this group.

Site Name	State S Brine Well #1
Date Release Discovered	04/18/2022
Surface Owner	State

Incident Details

Please answer all the questions in this group.

Incident Type	Other
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	Yes
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	Not answered.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Cause: Equipment Failure Injection Well Brine Water Released: 30 BBL Recovered: 28 BBL Lost: 2 BBL.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Brine fluids were vacuumed up and disposed at a permitted facility. Soil impacts were stockpiled and secured with fencing on location pending later disposal at a permitted facility. In addition, Key was working through the action items in the Emergency Order, dated 4/20/2022, issued by the NMOCD.

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QUESTIONS (continued)

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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	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more; (2) an unauthorized release of a volume that: (d) substantially damages property or the environment.
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: Jill Best Title: Regulatory manager Email: jbest@keyenergy.com Date: 04/25/2025
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QUESTIONS, Page 3

Action 455648

QUESTIONS (continued)

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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

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CONDITIONS

Created By	Condition	Condition Date
nvez	None	4/25/2025