

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: Dugan Production	OGRID
Contact Name: Neil Haws	Contact Telephone: 505-635-3124
Contact email: neil.haws@duganproduction.com	Incident # (assigned by OCD) NCS 18 28941804
Contact mailing address : 4100 W. Piedras St. Farmington, NM 87401	

Location of Release Source

Latitude 36.445384 Longitude -108.185361
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: West Bisti SWD #1	Site Type
Date Release Discovered: 9-27-18	API# 30-04533828

Unit Letter	Section	Township	Range	County
G	35	26N	13W	San Juan

Surface Owner: State Federal Tribal Private (Name: _____)

NMOCD
OCT 11 2018
DISTRICT III

Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) Approx 10 bbls	Volume Recovered (bbls) Approx 10 bbls or less
<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: System over pressured casing rupture disk on the knockout to rupture. This caused the crude oil to begin dumping into the pit. Pit filled and overflowed onto the ground flowing down grade (NW) approximately 52 feet where it collected in a low spot in the road.

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

Jean Bia with the Navajo Nation EPA UIC Program was on location and was the person who discovered the spill. Neil Haws called NMOCD Cory Smith on 9-27-18 at approx. 1533 hrs. and followed up with e-mail later that afternoon.

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
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If all the actions described above have not 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.

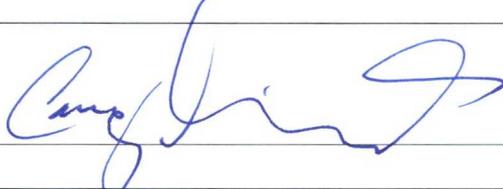
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public 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: Neil Haws #31 Title: Environmental

Signature:  Date: 10-8-18

email: neil.haws@duganproduction.com Telephone: 505-635-3124

OCD Only

Received by:  Date: 10/16/18

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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?	85 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" 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 checked="" 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 checked="" 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 checked="" 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 checked="" 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 checked="" 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 checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" 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.

West Bisti #1 SWD

9-27-18

Remediation plan:

Upon discovery of release, the release was immediately shut off. Area where crude oil collected was a low spot in the dirt roadway and was contained in the low spot. The standing liquids (crude oil) was removed by a water truck. A crew arrived and began removing stained/wet dirt in impacted area for later removal to an approved land farm.

9/28/18

Crew finished removing stained soil from impacted spill area (from pit to roadway)

Further remediation

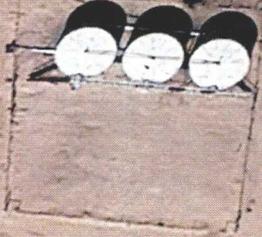
- Contaminated soil will be removed to an approved land farm
- Soil Samples will be will be conducted with 2 a day notice to NMOCD.
- Upon lab results meeting standards of Table 1 clean soil will be used to backfill area

West Bisti #1 SWD

Crude oil release on 9-27-18
(GPS 36.44532, -108.18523)

Legend

-  Release Area
-  West Bisti 1 SWD



West Bisti 1 SWD

Google earth

© 2018 Google



200 ft

WBU Tank Battery Hydrogeologic Data

The WBU Tank Battery is located on Navajo Nation Trust Lands within the Navajo Indian Irrigation Project (NIIP), San Juan County, New Mexico. Water used for irrigation on NIIP is transported to the area from Cutter Dam and Navajo Dam over 25-30 miles to the north and east through an elaborate, cement lined canal system. The area is characterized as very arid with abundant dunes surrounding patches of "Badlands" topography with a sparse cover of grass and sage.

A records search of the NM Office of the State Engineer – iWATERS database was conducted on a three square mile area centered on the WBU Tank Battery location (Exhibit 2). No water wells were located in the area of the below grade tank. The results of the search are shown on Exhibit 1.

The main source of stock water in the region is encountered in valley-fill deposits in existing arroyos at shallow depths of approximately 15 – 50 feet below the surface. The proposed below grade tank is not located in an arroyo; the nearest arroyo is located over 1800 feet to the southeast (Exhibit 2).

The Nacimiento Formation extends from the surface down to a depth of approximately 35 feet. The interval is comprised of mudstone, shale and traces of siltstone. The interval is not expected to yield significant volumes of groundwater

The underlying Ojo Alamo Sandstone ranges from 35 feet down to a depth of approximately 135 feet and is comprised of a coarse grained alluvial sandstone inter-bedded with lenses of mudstone and occasional conglomeratic sandstone. There are no shallow Ojo Alamo water wells in the area. The Ojo Alamo is exposed in the outcrop 5-miles west and in Gallegos Wash 3-miles east. The Ojo Alamo may yield marginal quantities of water for livestock, however, the water quality is typically greater than 1,000 ppm total dissolved solids and high in sulfate (Stone, 1983).

The underlying Kirtland Shale ranges from approximately 135 feet down to 1150 feet. The uppermost 300 feet is comprised of shale. The middle sandstone member (Farmington Ss.) is poorly developed from 300-500 and might contain minimal amounts of poor quality ground water.

Based on electric open hole logs, the iWATERS database and literature reviewed, poor quality ground water might be found at a depth of approximately 85-135 feet from the Ojo Alamo Sandstone. Also, the Kirtland sands from 300-500 feet might contain ground water. The Kirtland from 500 down to 1150 is all shale with a trace of siltstone stringers.

Excessive drilling depth, to breached sands with unpredictable variations in reservoir quality and water quality have discouraged the drilling of water wells in the in the subject area.

This Hydrogeologic Report was prepared by Mr. Kurt Fagrelus, Geologist for Dugan Production. Mr. Fagrelus has been employed as a geologist for Dugan for the past 31-years, received a MS in Geology from NMIMT in Socorro, NM and a BS in Geology from FLC in Durango, CO.

Stone, W.J., Lyford, F.P., Frenzel, P.F., Mizell, N.H., and Padgett, E.T., 1983, Hydrogeology and water resources of San Juan Basin, New Mexico: New Mexico Bureau of Mines and Mineral Resources Hydrologic Report 6, 70 p.

Brown, D.R., and Stone, W.J., 1979, Hydrogeology of Aztec quadrangle, San Juan County, New Mexico: New Mexico Bureau of Mines and Mineral Resources Hydrogeologic Sheet 1.

Levings, G.W., Craig, S.D., Dam, W.L. Kernodle, J.M., and Thorn, C.R., 1990, Hydrogeology of the San Jose, Nacimiento, and Animas Formations in the San Juan Structural Basin, New Mexico, Colorado, Arizona and Utah: U.S. Geological Survey, Atlas HA-720-A, Sheet 1 and 2.

Thorn, C.R., Levings, G.W., Craig, S.D., Dam, W.L., and Kernodle, J.M., 1990, Hydrogeology of the Ojo Alamo Sandstone in the San Juan Structural Basin, New Mexico, Colorado, Arizona and Utah: U.S. Geological Survey, Atlas HA-720-B, Sheet 1 and 2.