

Oil Field Environmental Incident Summary

Incident: 20180612121421 **Notice:** 6/12/2018 12:14 **Occurred:** 6/10/2018 17:00

Responsible Party: sbt inc
Well Operator: MISSOURI RIVER ROYALTY CORPORATION
Well Name: BORTH 1-35
Field Name: SAXON
Well File #: 7707
Facility ID #:
County: DUNN
Twp Rng Sec Qtr: 145 93 35 SW NE
Location Description: pasture land off south east corner of the well pad.
Submitted By: Bobby Porterfield
Received By:
Contact Info: Bobby Porterfield
423 e main
hazen ND 58545
Affected Medium: Topsoil
General Land Use: Pasture
Near. Occupied Bldg:
Nearest Water Well: 500 Feet
Type of Incident: Other
Release Contained: No
Reported to NRC: Unknown

	Spilled	Units	Recovered	Units	Followup	Units
Oil						
Brine	100	Barrels				

Other

Oth Rel. Contaminant: release of approximately 100 bbls of flowback water.

Date Inspected:

Clean Up Concluded:

Written Report Recd:

Risk Evaluation:

none

Areal Extent:

impacted area is approximately 15 feet by 200 feet

Potential Env. Impacts:

pasture land, hay and grasses

Action Taken/Planned:

ND one call made and awaiting clearance to begin , having cleanup contractor begin reomoving impacted materials for disposal.

Wastes Disposal Location:

R360 landfill

Other Agencies Involved:

Local Law Enforcement

Updates

Date: 6/12/2018 **Status:** Reviewed - Follow-up Required **No Further Action:**

Author: Schiermeister, Robin

Notes:

Release, due to a leaking hose, impacted pasture land. Approximately 100 barrels were released when the responsible party's driver intentionally released flowback water onto a field by the Borth 1-35 well pad. NDDoH personal has been on site; however, further follow-up is needed to ensure proper clean up.

Updated Volumes and Contaminant None at the time of this update

Date: 6/12/2018 **Status:** Inspection **No Further Action:**

Author: Crowdus, Kory

Notes:

On location 6/11/2018, at 1:11pm. Met with landowner, personnel from trucking company and Marathon Oil. The release was off the SE corner of pad and flowed to the south into hay/pasture land. Conductivity probe was used to in the flow path and showed readings between 18 ms/cm to 28 ms/cm. Background levels showed less than 1 ms/cm. Release area appeared to be approximately 60x20 yards visually with the depth unknown. Two samples were taken, one from the release point and the second one approximately 60 yards to the south near the possible end point of release. One call has been contacted and excavation will begin once lines are marked and equipment gets to the site. Further follow-up is required.

Updated Volumes and Contaminant None at the time of this update

Date: 6/13/2018 **Status:** Inspection **No Further Action:**

Author: Crowdus, Kory

Notes:

On location 6/13/2018, at 10:20am. Work has not started at the site yet. Still awaiting lines to be marked and equipment to show up. Further follow-up is required.

Updated Volumes and Contaminant None at the time of this update

Date: 6/15/2018 **Status:** Inspection **No Further Action:**

Author: Crowdus, Kory

Notes:

On location 6/15/2018, at 9:28am. Excavation has begun at location. Approximately 30x20 yard area has been excavated to a depth of approximately 15 ft. Soils will continue to be removed. Rapid testing is being done to determine extent of impacts as excavation continues. Samples will be taken once they feel impacts have been completely removed. Further follow-up is required.

Updated Volumes and Contaminant None at the time of this update

Date: 6/19/2018 **Status:** Inspection

No Further Action:

Author: O'Gorman, Brian

Notes:

Arrived on location at 9:00. 61 degrees F, Mostly Cloudy, Southeast wind 0-5 mph. Spoke with the company contact and took photos (added to the incident folder). Excavation of the local area was approximately 120' long by 28' to 38' wide and 10' to 15' in depth. Groundwater was filling the southern portion of the excavation where a vac truck was placed and was removing the water at the time of the inspection. Further follow-up needed.

Updated Volumes and Contaminant None at the time of this update

Date: 6/22/2018 **Status:** Inspection

No Further Action:

Author: O'Gorman, Brian

Notes:

Arrived on location at 8:05. 63 degrees F, Partly Cloudy, South wind 5-10 mph. Met with the company representative and the landowner. Used the soil probe to measure the conductivity of the open sidewalls and floor of the excavation. Did not encounter any readings above 2,500 along the sidewalls and the floor where groundwater was not present. The groundwater being held in the southern portion of the excavation was showing Electrical Conductivity (EC) readings as 5,000 us/cm to 7,000 us/cm. Collected a water sample for a field chloride test strip. Chlorides from the water in the bottom of the excavation showed 6,178 ppm of chlorides. Collected two water samples from the water holding area of the excavation and one water sample from the coal seam seep on the east sidewall of the excavation. Photos added to the incident folder. Further follow-up needed.

Updated Volumes and Contaminant None at the time of this update

Date: 6/27/2018 **Status:** Inspection

No Further Action:

Author: DeVries, Taylor

Notes:

Inspection Date: 6/27/2018

Arrived on location at 1430. Met with third party consultant and went over the release. The consultant was working on getting a tank truck to come by and remove the water that has pooled in the excavation. The coal seam still has water running out of it. A visit will be made tomorrow to take field chloride readings as the ramp to the seam was removed.

Photos were taken and can be found in the report folder.

Updated Volumes and Contaminant None at the time of this update

Date: 6/28/2018 **Status:** Inspection

No Further Action:

Author: DeVries, Taylor

Notes:

Inspection Date: 6/28/2018

Arrived on location at 1500. A meeting was supposed to be held with the land owner, the Department of Health, the third party consultant, and another consultant. The landowner did not make it to the meeting. A chloride strip was used to measure the chloride level of the coal seam. It read at 2,245 ppm. The water in the excavation read 639ppm. Further follow-up is needed on clean up. Barn swallows have started nesting in the sidewalls of the excavation.

The second third party consultant has requested all data collected from the Department of Health and the other third party consultant. His information is in the report folder.

Photos were taken and can be found in the report folder.

Updated Volumes and Contaminant None at the time of this update

Date: 7/5/2018 **Status:** Inspection

No Further Action:

Author: Schiermeister, Robin

Notes:

Arrived on site at 15:16 on 7-2-2018. It was sunny with temperatures in the 70s. Walked down to the bottom of the excavation southeast of the site and saw dark staining along the wall. Took Quantab readings at 47.332432, -102.495377, and found a low reading of 476 ppm and a high reading of 505 ppm. No one was on site during the inspection. Further follow-up is needed.

Updated Volumes and Contaminant None at the time of this update

Date: 7/9/2018 **Status:** Inspection

No Further Action:

Author: Crowdus, Kory

Notes:

On location 7/9/2018, at 2:16pm. No work is being done at this time. Pumps are in the water at the bottom of excavation to pump water out, but are not currently running. A water sample was taken from the seep on the east side of excavation. Chloride strips from seep showed 1253 ppm Chloride on the High Range strip. Further follow-up is required.

Updated Volumes and Contaminant None at the time of this update

Date: 7/12/2018 **Status:** Inspection

No Further Action:

Author: O'Gorman, Brian

Notes:

Arrived on location at 8:30. 65 degrees F, Partly Cloudy, Northwest wind 5-10 mph. Walked the area and took photos. Collected a water sample from the coal seam seep along the east side of the excavation. Field analysis showed the water to be 161 us/cm Electrical Conductivity and 218 ppm chlorides. Collected one water sample at 10:15, a duplicate at 10:25 to be analyzed for group 190 analysis. Chain of custody and photos added to the incident folder. Further follow-up needed.

Updated Volumes and Contaminant None at the time of this update

Date: 7/23/2018 **Status:** Inspection

No Further Action:

Author: Martin, Russell

Notes:

7/20/2018 at 13:05, on location. No personnel onsite. Standing water at bottom of excavation, appears to be partly fed by water flowing out of the east wall of the excavation. Used Quantab chloride test strips on the water in the excavation. In the southwest pool, which contained the hose used to drain water from the excavation, readings were 459 ppm. Water in a small pool directly adjacent and actively being fed by the water flowing out of the east wall, was over the range of the test strip, so readings were over 614 ppm. Lastly, water that was seeping out of the east wall was taken directly and measured, with a reading of 529 ppm. More follow-up needed.

Updated Volumes and Contaminant None at the time of this update

Date: 7/25/2018 **Status:** Inspection

No Further Action:

Author: Washek, Sandi

Notes:

Arrived onsite at 12:27am. Weather was sunny with wind out of the NW at 15 miles/ hr. Temperature 70 degrees F.

No personnel onsite. There are two puddles of standing water at the bottom of excavation that merge together. The pools appear to be partly fed by water flowing out of the east and west wall of the excavation. Used Quantab chloride test strips on the water in the excavation. In the southeast pool, which drains into the pool that contained the hose used to drain water from the excavation, readings were 1,952 ppm. Water actively being fed by the water flowing out of the east wall, was collected and tested at 860ppm. Lastly, water that was seeping out of the west wall was taken directly and measured, with a reading of 791 ppm.

Also checked the two cattail sloughs located south and east of the trench. The first slough, closest to the trench (GPS N47.33235, W102.49493) has no standing water in it. The next slough, furthest to the east (GPS N47.33239 W102.49374) also has no standing water in it. Walked further down to the fence line and found no other standing water in the hay field.

More follow-up needed.

Updated Volumes and Contaminant None at the time of this update

Date: 7/31/2018 **Status:** Inspection

No Further Action:

Author: O'Gorman, Brian

Notes:

Arrived on location at 16:45. 79 degrees F, Partly Cloudy, Northwest wind 15-25 mph. Observed the area and took photos. Walked to the wetlands south and southeast of the excavation and did not observe any surface water standing within the cattails. Some water was pooled in the southern portion of the excavation. Field analysis of the water showed Electrical Conductivity (EC) to be 6830 us/cm and chlorides at 1601 ppm. More follow-up needed. Photos added to the incident folder.

Updated Volumes and Contaminant None at the time of this update

Date: 8/24/2018 **Status:** Inspection

No Further Action:

Author: Wax, Pete

Notes:

On site august 17, 2018 at 7:50. Pumping unit on site. Collected pictures. Collected 2 samples for analysis of group 190. One sampled from pit bottom in southeast corner and one from the ground water weeping from southeast wall of pit. Ran chloride strip on pit bottom water. High range indicates chlorides of 1601 mg/L. Off site 10:00.

Updated Volumes and Contaminant None at the time of this update

Date: 8/27/2018 **Status:** Inspection

No Further Action:

Author: Crowdus, Kory

Notes:

On location 8/27/2018, at 2:04pm. Personnel were on-site pumping and removing water from excavation area. Approximately 80-100 barrels are removed every 2 days. The consultant took a water sample from the seep on the east side of excavation. A chloride strip was used to test the standing water in excavation area and showed 1014ppm. A chloride strip was also used on the water from the seep on east side of excavation and showed 1523ppm. Further follow-up is required.

Updated Volumes and Contaminant None at the time of this update

Date: 10/12/2018 **Status:** Correspondence

No Further Action:

Author: O'Gorman, Brian

Notes:

Received hard copy results from the 6/22/2018 and 7/9/2018 water sampling events that show the water from the floor of the excavation to have chlorides at 2410 mg/L and bromides at 14.7 mg/L. The sample collected from the coal seam seep on the east side of the excavation showed chlorides at 1240 mg/L and bromides at 7.57 mg/L. More follow-up needed. Lab results added to the incident folder as 18-C377 and 18-C484.

Updated Volumes and Contaminant None at the time of this update

Date: 10/29/2018 **Status:** Inspection

No Further Action:

Author: Crowdus, Kory

Notes:

Met on location with environmental consultant and landowner. An EM survey was conducted. Results will be sent once completed. Further follow-up is required.

Updated Volumes and Contaminant None at the time of this update

Date: 12/4/2018 **Status:** Correspondence

No Further Action:

Author: O'Gorman, Brian

Notes:

Received hard copy results from the 6/22/2018 water sampling event. Sample 18-C378 is a duplicate sample of 18-C377 which was from the floor of the excavation. 18-C379 was collected directly from the water exiting the coal seam seep on the east side of the excavation. The results showed very high sodium levels (898 mg/L), very high chloride levels (2700 mg/L), fairly high Electrical Conductivity (9890 umhos/cm) and high bromide levels (16.0 mg/L). Results added to the incident folder. More follow-up needed.

Updated Volumes and Contaminant None at the time of this update

Date: 12/7/2018 **Status:** Inspection

No Further Action:

Author: Torgerson, Brad

Notes:

On December 7, 2018 - 12:30 pm - Sunny and 23 Degrees F - I visited the Missouri River Royalty Corp. - Borth 1-35 production location. A trench has been excavated from a point just east of the facility treater and southwards approximately 80 feet N to S X 15 to 20 feet deep X 30 feet E to W (see pics) . The trench then extends approximately 100 feet to the east X 15 to 20 feet deep X 30 feet wide N to S. It appeared several hundred cubic yards of soil have been excavated and then stockpiled at the edges of the trench. No one else was at the facility. Water was puddled at the base of the excavation area.

Updated Volumes and Contaminant None at the time of this update

Date: 5/9/2019 **Status:** Inspection

No Further Action:

Author: Stockdill, Scott

Notes:

Arrived on location 11:01 5/9/2019.

Excavation has been expanded to the east. Total depth of excavation is 13-17' BSG. Water is standing in the excavation. A sample was collected from the standing water.

More follow-up is necessary.

Updated Volumes and Contaminant None at the time of this update

Date: 5/21/2019 **Status:** Inspection

No Further Action:

Author: Crowdus, Kory

Notes:

On location 5/21/2019, at 9:20am. Met with SBT personnel, cleanup company and landowner to discuss plans moving forward. Samples were taken by responsible party and NDDEQ. If sample results come back as satisfactory, they will begin to backfill the excavation area. Further follow-up is required once sample results come back and backfill has taken place.

Updated Volumes and Contaminant None at the time of this update

Date: 6/18/2019 **Status:** Inspection - More Follow-up Required **No Further Action:**

Author: Crowdus, Kory

Notes:

On location 6/18/2019, at 9:28am. Met with company consultant. Samples were taken at 4 locations within the excavated area. Chloride strips are still showing high levels in the NE portion of excavation. Follow up is required once samples results are returned.

Updated Volumes and Contaminant None at the time of this update

Date: 5/21/2020 **Status:** Inspection - More Follow-up Required **No Further Action:**

Author: Crowdus, Kory

Notes:

On location 5/21/2020, at 11:13am. Excavation area is approximately 75% filled with water. It does not appear any additional work has been done since last inspection. A chloride strip was used in the standing water and showed levels of 6.4 or 1952ppm, on the High range strip. A water sample was taken from the North side of excavation. Further follow-up is required.

Updated Volumes and Contaminant None at the time of this update

Date: 7/22/2020 **Status:** Correspondence - More Follow-up Required **No Further Action:**

Author: Crowdus, Kory

Notes:

Received a work plan from SBT consultant. Plan has been added to the incident folder. Further follow-up is required.

Updated Volumes and Contaminant None at the time of this update

Date: 10/20/2020 **Status:** Correspondence - More Follow-up Required **No Further Action:**

Author: Crowdus, Kory

Notes:

Plan for sump installation was received from consultant and has been added to report folder. Further follow-up is required.

Updated Volumes and Contaminant None at the time of this update

Date: 11/27/2020 **Status:** Inspection - More Follow-up Required **No Further Action:**

Author: Suess, Bill

Notes:

Inspected the site on 11/23/2020. The area has been backfilled and re-graded. A sump has been installed. Still waiting on the groundwater monitoring plan from the RP. More follow-up is needed.

Updated Volumes and Contaminant None at the time of this update

Date: 1/7/2021 **Status:** Inspection - More Follow-up Required **No Further Action:**

Author: Suess, Bill

Notes:

This incident has been re-assigned to Kory Crowdus.

Updated Volumes and Contaminant None at the time of this update

Date: 1/15/2021 **Status:** Correspondence - More Follow-up Required **No Further Action:**

Author: Crowdus, Kory

Notes:

Sample results were received from consultant and have been added to the incident folder. Further follow-up is required.

Updated Volumes and Contaminant None at the time of this update

Date: 1/20/2021 **Status:** Inspection - More Follow-up Required **No Further Action:**

Author: Crowdus, Kory

Notes:

On location 1/20/2021, at 10:05am. No activity at the site. A water sample was collected from the monitoring well. Further follow-up is required.

Updated Volumes and Contaminant None at the time of this update

Date: 8/19/2021 **Status:** Inspection - More Follow-up Required **No Further Action:**

Author: Crowdus, Kory

Notes:

On location 8/19/2021, at 8:30am. Kosha is covering approximately 95% of impacted area. No signs of native vegetation in impacted area. Further follow-up is required.

Updated Volumes and Contaminant None at the time of this update

Date: 11/3/2021 **Status:** Inspection - More Follow-up Required **No Further Action:**

Author: Suess, Bill

Notes:

This incident has been re-assigned to B. Suess.

Updated Volumes and Contaminant None at the time of this update

Date: 1/20/2023 **Status:** Correspondence - More Follow-up Required **No Further Action:**

Author: Suess, Bill

Notes:

The sump continues to be dry or contain very little water. The site will be sampled in the spring and water will be collected from the sump if possible.

Updated Volumes and Contaminant None at the time of this update

Date: 4/28/2023 **Status:** Inspection - More Follow-up Required **No Further Action:**

Author: Suess, Bill

Notes:

Inspected the site on 4/24/2023. While the vegetation was still brown from winter, it was apparent that it had grown well the previous growing season. It was as much weeds as grasses, however, this may be due to a lack of mowing. Samples were collected from the sump, in addition to the down-gradient monitoring well and a stream bed monitoring well. Also, a soil sample was collected from the root zone adjacent to the sump. The samples were submitted to the ND State Chemistry Laboratory for a Group 190 analysis. Awaiting the sample results.

The water from down-gradient well was clear with no odors. The water from the stream bed monitoring well was silty with a strong organic odor, as was to be expected. The water from the sump was clear but had a strong manure-like odor.

Updated Volumes and Contaminant None at the time of this update

Date: 8/8/2023 **Status:** Correspondence - More Follow-up Required **No Further Action:**

Author: Suess, Bill

Notes:

Work at the site is on hold due to legal action. The site should be resampled in the fall.

Updated Volumes and Contaminant None at the time of this update