



SUBMITTING A CLOSURE REQUEST FOR A BRINE SPILL

Procedure #: UHS-31

(3/2020)

Narrative:

A brine spill or brine release closure request should include the elements listed below; provide as much detail as possible. Once a closure request has been submitted, the Kansas Department of Health and Environment (KDHE) will review the request. The KDHE will either send a notice of closure or provide additional requirements for the responsibility party. Three types of closures may be assigned to a release:

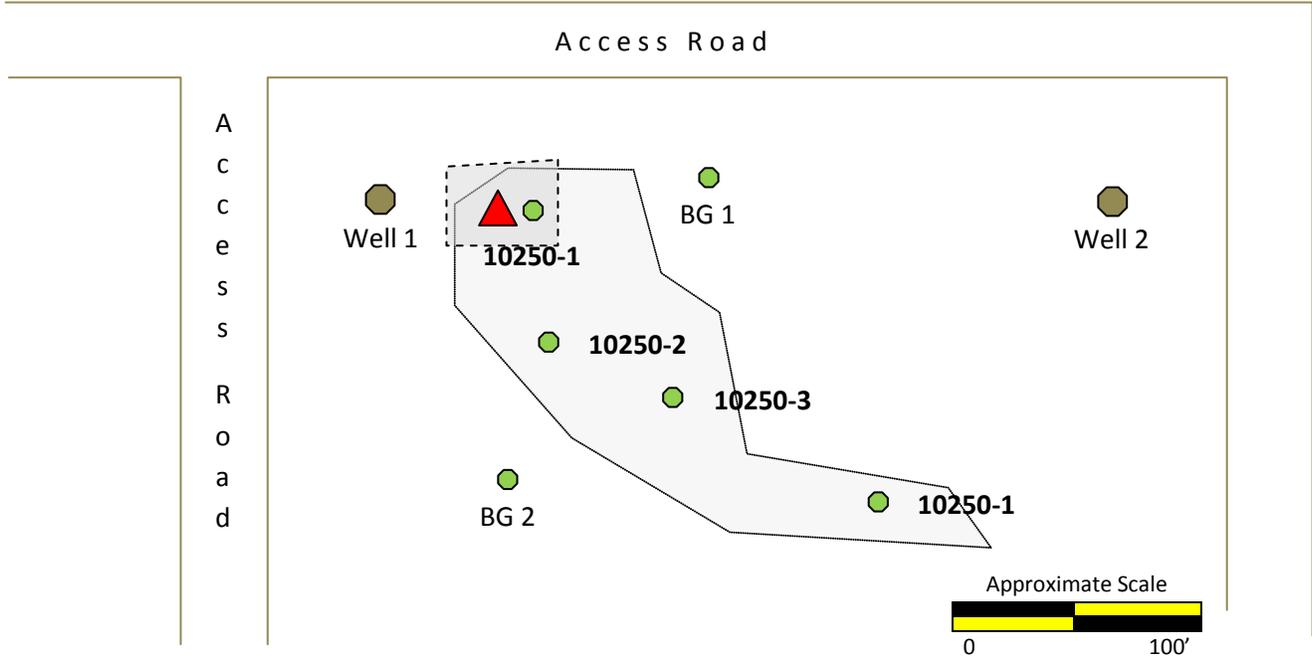
- **Closed:** The situation, size of release, and location allows complete and definitive removal of chloride contamination.
- **Conditional Closure:** The responsible party made significant efforts to remediate the area but chloride concentration in the soil is still greater than 1000 mg/kg; elevated chloride concentrations could be from historical releases.
- **Referred:** When the impacted media from a brine spill or brine release cannot be completely removed or remediated in a reasonable time, when groundwater impacts remain, if physical structures restrict the removal of contaminated material, or when significant previously undiscovered contamination is encountered and cannot be differentiated between the current release and historical releases.

Key Elements:

1. **Release Details:** a brief statement including location of the release, the nearest identifiable landmark, well, etc., legal location (quarter, section, township, range, and county) and GPS location for the release site, estimated volume of release, and date and time release occurred.
2. **Reporting:** Dates and times of who made the initial release notification and who the release was reported to.
3. **Initial Response & Containment:** Details on how the release was secured (isolation of brine lines, closing valve, turning off a pump, etc.). Details on how the release was contained (digging bell hole, constricting temporary containment dams, etc.). Explain if the release left company owned property or impacted a water way.
4. **Extent of Release:** Provide a detailed site description of the release area. Include information on the size of the impacted area (in ft.).
 - a. **PROVIDE A SITE MAP** (example attached). The site map should include the original release point, outline of extent of release, initial excavations, locations of soil samples, (#9), locations of any surrounding wells, landmarks, etc. and a scale and legend.
5. **Recovery of Released Fluids:** State how much fluid was recovered (if recovered) and how the fluid was recovered during every part of remediation.

6. **Repair:** Describe in detail how the release was repaired.
 - a. If associated with a pipeline: Describe if a temporary clamp, patch, half sleeve, or full sleeve was installed or welded around leak locations. Describe if a section of the pipe was replaced or lined, etc. Provide the size and length of any patches, sleeves, replacement, or liner installed.
 - b. If associated with a valve: Describe if the valve was closed or left open. Describe if the valve was replaced or if packing was added to the stem, etc.
 - c. If associated with a workover or other: Describe if the well kicked, or how it was controlled. Describe corrective action if a hose leaked or was damaged, if a pressure relief valve discharged, or if a tank overflowed, etc.
7. **Excavation:** Describe how the site was excavated and how impacted material was removed via mechanical or hydro excavation, describe depths of excavations, volume of impacted material removed per type of excavation method, etc.
8. **Method of Disposal of Impacted Material:** Describe where the impacted material was disposed of. (Name and location of landfill or if emplaced into an approved cavern, provide name and location of emplacement cavern). Provide Bureau of Waste Management's (BWM) special waste authorization ID, if applicable.
9. **Soil Samples:** Describe how, where, and the depths of soil samples collected. Field screens may be used for initial excavation however samples for the closure request **must** be analyzed for chlorides by a KDHE certified laboratory. These lab results may be summarized in a table and do not need to be submitted with the closure report but must be kept on site and available upon request. In addition, background samples from outside the impacted site should be taken.
10. **Backfill:** Describe the volume of material used to backfill site, and the origination point of backfill material. Describe or provide a determination or lab sample of backfill material to ensure the material is not contaminated.
11. **Flushing:** If flushing is used as a method of remediation describe how it was conducted, provide source, volume, and chloride concentration of flush fluid along with volumes and chloride concentrations of recovered flush fluid. Describe how samples were collected and analyzed to determine flushing was successful, field screens may be used for initial results, however, samples for the closure request **must** be analyzed by a KDHE certified laboratory.
12. **Site Restoration:** Describe if the site was seeded to re-establish vegetation cover (type and rate of application). Describe if a soil amendment was used (type and rate of application). It may be necessary to irrigate area to aid in the re-establishment of vegetation. Describe if the location was rocked or graveled to provide erosion control for drainage or if a well pad or road was replaced. Describe if an erosion mat or silt fence was installed.
13. **Final Summary:** Summarize how closure requirements have been met.

Site Diagram



LEGEND:

- Well
- Release Point
- Sample Point
- Extent of Release
- Extent of Initial Excavation
- Access Road



KDHE Release # 10250
 Site Location: 50' east of well 1
 Company Name: M&J Consolidated
 Address: 4100 Clearview Dr
Nowheresville, KS 60606
 Legal: (Quarter, NE,SW,NW
 Section, Town, Range, S20 T11S R16E
 County) Shawnee
 GPS Location: N 39°4'58"
 (any format acceptable) W 95°39'57"

SOIL SAMPLES:

Sample ID	Date Collected	Depth (ft / below ground level)	Chloride Level (mg/kg)	Sample ID	Date Collected	Depth (ft / below ground level)	Chloride Level (mg/kg)
BG-1	10/28/02	0-1	450	10250-2	11/4/02	2-3	3,500
BG-2	10/28/02	1-2	435	10250-2	11/9/02	3-4	870
10250-1	10/28/02	4-5	29,600	10250-3	10/28/02	1-2	4,500
10250-1	10/28/02	5-6	18,300	10250-3	11/4/02	2-3	1,300
10250-1	11/4/02	6-7	2,900	10250-3	11/9/02	3-4	650
10250-1	11/9/02	7-8	980	10250-4	10/28/02	0-1	1600
10250-2	10/28/02	1-2	18,700	10250-4	11/4/02	1-2	480

NOTES:

1. Brine release occurred on: **October 25, 2002**
2. The Kansas Department of Health and Environment (KDHE) action level for chlorides is 1,000 mg/kg for brine impacted soils.
3. Concentrations above KDHE action level for chlorides denoted in **RED**.
4. Concentrations below KDHE action level for chlorides denoted in **BLACK** (Report closure samples).
5. Soil samples analyzed for chlorides by: **A1 Environmental Laboratory**
6. BG – Background soil sample collected outside the extent of the release.