Summary of Incident

- On August 15, 2019 at approximately 8am MT, Bonterra identified an imbalance and began investigation.
- At approximately 1pm, discovered that an emulsion pipeline (17170-1) situated on its leased lands had ruptured resulting in a release of emulsion of an estimated 40 m3 into Washout Creek. Bonterra immediately activated its Emergency Response Plan, including immediate containment procedures and mitigation plans associated with minimizing impact, as well as notification of all appropriate parties.

Immediate Containment, Recovery and Monitoring

- Over 600 ft of booms were deployed across multiple locations (6-10) to contain and recover released fluids with the use of vac units. In addition, in areas not accessible by vehicle traffic, helicopters with barrel skimmers will be deployed to recover released fluids. Disposal of recovered fluids will be transported to an approved treatment, recovery, and disposal (TRD) facility.
- Plans have been put in place to mitigate the effect on wildlife, including setting up barriers, visual deterrents and physical human presence.
- Clean up and recovery is expected to continue for the next three weeks. The first week will involve intense recovery efforts as outlined above, while the following two weeks will include shoreline monitoring.
- Continuous monitoring and sampling to assess the ongoing effect of the release.

SUMMARY OF DAILY OPERATIONS (24 HOURS)

BONTERRA August 21

Recovered emulsion from the creek utilizing river booms and removed the collected emulsion with vac trucks. Transferred recovered fluid from the vac tucks onto tank trucks and disposed of at an approved treatment, recovery, and disposal (TRD) facility. Optimized existing booms to increase emulsion-catching efficiency. Continued removing emulsion from remote locations by deploying helicopters and 3 barrel skimmers to recover released fluids. Mobilized a skimmer, pump, pipe and vac trucks to remove emulsion. Installed a sleeve over the sever point of the pipeline, clean fluid out of the line into a truck for sampling, continue to clean the pipeline for abandonment, cut out the severed section of pipe for third party analysis, install caps on the end of the pipe and back fill.

Have recovered all bulk oil with trace residual amounts to be cleaned up over the coming two to three weeks. The incident has been de-escalated by both AER and Bonterra.

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Containment, Recovery and Monitoring

- Over 1500 ft of booms have been installed across multiple locations on the creek to contain and recover released fluids with the use of vac units and three drum vacuum units at particular locations on the creek. In addition, in areas not accessible by vehicle traffic, helicopters with barrel skimmers will be deployed to recover released fluids. Recovered fluids were transported to an approved treatment, recovery, and disposal (TRD) facility for disposal.
- Removed/recovered free product and oily vegetation from bank of watercourse.
- Washed cobble and oiled logs and recovered product via portable vac units.
- Impact on wildlife continues to be mitigated with the barriers, visual deterrents and physical human presence that have been established.
- Live traps for the identified Beaver were staged and will be set when necessary. Current work activities in the area are acting as active hazing. No other signs of wildlife in the watercourse were identified.
- Clean up and recovery is expected to continue for the next three weeks. The first week will involve intense recovery efforts as outlined above, while the following two weeks will include shoreline monitoring.
- Continuous monitoring and sampling to assess the ongoing effect of the release.

EXPECTED OPERATIONS FOR NEXT 24 HOURS

- Continue to maintain, monitor and recover emulsion from Washout Creek with vac trucks, barrel vacs with helicopter support, maintain existing booms.
- Complete shore line cleaning from the source point downstream removing vegetation and soil / aggregate affected with oil
- Deploy wildlife deterrents as required.
- Continue wildlife monitoring.
- Conduct recovery/remediation operations.
- Collect surface water samples.