

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

Location of spill: Crescent Hale 10 Fed 3H

Date of Spill: 1/25/2019

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	61 ft X	25 ft X	3 in	0%	Rectangle Area #1	0 ft X	0 ft X	0 in	0%
Rectangle Area #2	0 ft X	0 ft X	0 in	0%	Rectangle Area #2	0 ft X	0 ft X	0 in	0%
Rectangle Area #3	0 ft X	0 ft X	0 in	0%	Rectangle Area #3	0 ft X	0 ft X	0 in	0%
Rectangle Area #4	0 ft X	0 ft X	0 in	0%	Rectangle Area #4	0 ft X	0 ft X	0 in	0%
Rectangle Area #5	0 ft X	0 ft X	0 in	0%	Rectangle Area #5	0 ft X	0 ft X	0 in	0%
Rectangle Area #6	0 ft X	0 ft X	0 in	0%	Rectangle Area #6	0 ft X	0 ft X	0 in	0%
Rectangle Area #7	0 ft X	0 ft X	0 in	0%	Rectangle Area #7	0 ft X	0 ft X	0 in	0%
Rectangle Area #8	0 ft X	0 ft X	0 in	0%	Rectangle Area #8	0 ft X	0 ft X	0 in	0%

okay

Production Data NOT Required

Average Daily Production: Oil 0 BBL Water 0 BBL

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

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

Liquid holding factor *: 0.14 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.
 Occures 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: 1,525 sq. ft. H2O 381 cu. ft. OIL cu. ft.

Estimated Volumes Spilled

Liquid in Soil: H2O 9.5 BBL OIL 0.0 BBL
 Free Liquid: 0.0 BBL 0.0 BBL
 Totals: 9.506 BBL 0.000 BBL

Total Liquid Spill Liquid: 9.506 BBL 0.000 BBL

Recovered Volumes

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

Free Liquid Volume Calculations:

Total Free Liquid Volume: sq. ft. H2O .000 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: 1,525 sq. ft.
 Surface Area: .0350 acre

Estimated Weights, and Volumes

Saturated Soil = 42,700 lbs 381 cu.ft. 14 cu.yds.
 Total Liquid = 10 BBL 399.25 gallon 3,322 lbs

CA