

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

Location of spill: Tres Equis State 2H

Date of Spill: 6/5/2019

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	50 ft X	15 ft X	5 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: 2% (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:

Occurs 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: 750 sq. ft. 313 cu. ft. 0.000 cu. ft.

**Estimated Volumes Spilled**

Liquid in Soil: 7.8 BBL 0.0 BBL  
Free Liquid: 0.0 BBL 0.0 BBL  
Totals: 7.792 BBL 0.000 BBL

Total Liquid Spill Liquid: 7.792 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: 0.000 sq. ft. .000 cu. ft. .000 cu. ft.

**Estimated Production Volumes Lost**

Estimated Production Spilled: 0.000000 BBL 0.000000 BBL

**Estimated Surface Damage**

Surface Area: 750 sq. ft.

Surface Area: .0172 acre

**Estimated Weights, and Volumes**

Saturated Soil = 35,000 lbs 313 cu.ft. 12 cu.yds.  
Total Liquid = 8 BBL 327.25 gallon 2,723 lbs