

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

Location of spill: Lost Tank 4 Federal 17

Date of Spill: 11/21/2018

Site Soil Type: Caliche (silt)

Average Daily Production: NA BBL Oil BBL Water

Total Area Calculations						
Total Surface Area	width		length		wet soil depth	oil (%)
Rectangle Area #1	94 ft	X	94 ft	X	1 in	25%
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 #4	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 #7	0 ft	X	0 ft	X	0 in	0%
Rectangle Area #8	0 ft	X	0 ft	X	0 in	0%

Porosity 0.16 gal per gal

Saturated Soil Volume Calculations:

		<u>H2O</u>	<u>OIL</u>	
Area #1	8836 sq. ft.	414 cu. ft.	138 cu. ft.	
Area #2	0 sq. ft.	cu. ft.	cu. ft.	
Area #3	0 sq. ft.	cu. ft.	cu. ft.	
Area #4	0 sq. ft.	cu. ft.	cu. ft.	
Area #5	0 sq. ft.	cu. ft.	cu. ft.	
Area #6	0 sq. ft.	cu. ft.	cu. ft.	
Area #7	0 sq. ft.	cu. ft.	cu. ft.	
Area #8	0 sq. ft.	cu. ft.	cu. ft.	
Total Solid/Liquid Volume:	8,836 sq. ft.	414 cu. ft.	138 cu. ft.	

Estimated Volumes Spilled

	<u>H2O</u>	<u>OIL</u>	
Liquid in Soil:	11.8 BBL	3.9 BBL	
Liquid Recovered :	0.0 BBL	0.0 BBL	
Spill Liquid	11.8 BBL	3.9 BBL	
Total Spill Liquid:	15.7		

Recovered Volumes

Estimated oil recovered: **0.0 BBL**
 Estimated water recovered: **0.0 BBL**

<u>Soil Type</u>	<u>Porosity</u>
Clay	0.15
Peat	0.40
Glacial Sediments	0.13
Sandy Clay	0.12
Silt	0.16
Loess	0.25
Fine Sand	0.16
Medium Sand	0.25
Coarse Sand	0.26
Gravelly Sand	0.26
Fine Gravel	0.26
Medium Gravel	0.25
Coarse Gravel	0.18
Sandstone	0.25
Siltstone	0.18
Shale	0.05
Limestone	0.13
Basalt	0.19
Volcanic Tuff	0.20
Standing Liquids	