***** LIQUID SPILLS - VOLUME CALCULATIONS ****** Location of spill: COG - Stuck Tank Sticks DFU 15 A TB Date of Spill: 10-Sep-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: WATER: 0.0 BBL If spill volumes from measurement, i.e. metering, tank volumes, etc. are known enter the volumes here: 0.0 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** wet soil **Total Surface Area** width oil (%) width liquid depth oil (%) length depth Standing Liquid Area length Rectangle Area #1 X X X X X X Rectangle Area #2 0 ft ∩ ft 0 in 0% Rectangle Area #2 0 ft 0 ft ${\color{red}0}$ in XXX Rectangle Area #3 0 in 0 ft 0 ft Х 0 in 0% Rectangle Area #3 0 ft 0 ft 09 Rectangle Area #4 Rectangle Area #4 0 ft 0 ft 0 ft 0 in 0% 0 ft 0 in 09 X Rectangle Area #5 0 in 0% Rectangle Area #5 0 ft 0 ft 0 in 09 Rectangle Area #6 0 ft 0 in 0% Rectangle Area #6 0 ft 0 ft 0 in 0% Rectangle Area #7 0 ft O ft 0 in 0% Rectangle Area #7 0 ft 0 ft Χ 0 in 09 X X 0% Rectangle Area #8 0 ft O ft 0 in Rectangle Area #8 0 ft O ft 0 in 0% okay production system leak - DAILY PRODUCTION DATA REQUIRED Average Daily Production: 0 BBL 0 BBL Oil Water Gas (MCFD) 0 Total Hydrocarbon Content in gas: (percentage) H2S Content in Produced Gas: Ο PPM Did leak occur before the separator?: YES (place an "X") 0 H2S Content in Tank Vapors: PPM Amount of Free Liquid Percentage of Oil in Free Liquid 0 BBL okay 0% (percentage) Recovered: Recovered: Liquid holding factor *: 0.14 gal per gal Use the following when the spill wets the grains of the soil. Use the following when the liquid completely fills the pore space of the soil: Sand = 0.08 gallon (gal.) liquid per gal. volume of soil. Occurs when the spill soaked soil is contained by barriers, natural (or not). * Gravelly (caliche) loam = 0.14 gal. liquid per gal. volume of soil. * Clay loam = 0.20 gal. liquid per gal. volume of soil. * Sandy clay loam soil = 0.14 gal liquid per gal, volume of soil. * Gravelly (caliche) loam = 0.25 gal, liquid per gal, volume of soil. * Clay loam = 0.16 gal. liquid per gal. volume of soil. * Sandy loam = 0.5 gal. liquid per gal. volume of soil. Total Solid/Liquid Volume: 750 sq. ft. 41 cu. ft. cu. ft. Total Free Liquid Volume: cu. ft. cu. ft. **Estimated Production Volumes Lost Estimated Volumes Spilled** H20 OIL H20 OIL Liquid in Soil: 0.0 BBL Estimated Production Spilled: 0.0 BBL 0.0 BBL 1 0 BBI Free Liquid: 0.0 BBL 0.0 BBL Totals: 0.0 BBL 1.0 BBL **Estimated Surface Damage** 750 sq. ft. Total Liquid Spill Liquid: 1.0 BBL 0.00 BBL Surface Area: .0172 acre Estimated Weights, and Volumes Recovered Volumes Estimated oil recovered: BBL check - okay Saturated Soil = 4,550 lbs 41 cu. ft. 2 cu. yds. Estimated water recovered: BBL check - okay Total Liquid = 1 BBL 43 gallon 354 lbs Air Emission from flowline leaks: Air Emission of Reporting Requirements: BBL Volume of oil spill: New Mexico Texas MCF HC gas release reportable? NO Separator gas calculated: NO MCF H2S release reportable? NO Separator gas released: Gas released from oil: lb H2S released: lb Total HC gas released: lb Total HC gas released: MCF