

The berms at the Maudlin Gulch Field overflowed after a pump and ESD issue caused existing tanks to overflow. The berm contains 7, 400 BBLs tanks and was constructed with a liner under the tanks, also bentonite was placed on top of the liner to ensure impermeability. These 7 tanks consist of 3, H₂O tanks connected to the injection system, 2 oil tanks, and 2 spare tanks for additional storage capacity. A diagram of the tank berm can be seen attached. Due to a gradual slope of the bermed area additional calculations are required. These can be seen attached. After the berm overflow the low spot was raised up with dirt.

Maudlin Tank Berm

The Maudlin Gulch Tank battery consists of 3, 400 BBL water tanks and 4, 400 BBL oil tanks

See Drawing for details

Dimensions	
Length	86 feet
Width	48 feet
Height	3.5 feet
Tank size	12 feet diameter

Square Berm 11336.5 cf $Sq. Berm Volume = (L-2*H)*(W-2*H)*H$

Berm angle 1470 cf $Sloped Berm Volume = (L-2*H)*H*H + (W-2*H)*H*H$

Total Berm 12806.5 cf $Total Berm Volume = Sq. Berm Volume + Sloped Berm Volume$

Free bore up hill side 2 ft * called "FB_uphill" in equations

Surface area of Free Bore 84 sq. ft $Surface Area of Freebore = (L-FB_uphill)*FB_uphill*0.5$

Freebore Volume 3864 cf $Free Bore Volume = Surface Area of Free Bore * (W-FB_uphill)$

Berm Volume less free bore 8942.5 cf $Berm Volume less FB = Total Berm - Freebore Volume$

4 non connected 400 BBL tanks 1583 cf $Tank Volume = Pie*(tank size/2)^2*H*4$

Total Volume in berm 7359 CF $Total Berm = Berm Volume less FB - Tank Volume$

Total Volume in berm BBLs 1311 BBLs $Total Berm Volume BBLs = Total Berm/5.6145$

MADRID GUICH TANK BEAMS

