

# Reservoir Fill-up Volume

Zone	Pay ft	Porosity	Water Saturation	Initial FVF RB/BO	OOIP/AF BO/Ac-ft	Area Acres	OOIP MBO	Pore Volume MBBLS
Blinebry	41	8.10%	29.7%	1.45	305	2480	30676	63272
Drinkard	93	9.60%	24.7%	1.45	387	2480	89012	171404
Total	133		26.0%				119688	234676

\*Blinebry/Drinkard Porosity and Water saturation based on log analysis of recent infill wells with full log suites using 5% porosity cutoff and 40 API.

	Blinebry	Drinkard	Total
Cum Recovery, MBO	0	0	13075 40 acre wells (B+D)
Cum Recovery, MBO	0	0	13440 40 + 20 acre wells (BTD)
Remaining Reserves, MBO	0	0	602 40 acre wells
Remaining Reserves, MBO	0	0	1925 40 + 20 acre wells
Ultimate Prim Recovery, MBO	0	0	13677 40 acre wells
Ultimate Prim Recovery, MBO	0	0	15365 40 + 20 acre wells
Current Recovery Factor, %			11%
Primary Ultimate Recovery Factor, %			11% 40 acre wells
Primary Ultimate Recovery Factor, %			13% 40 + 20 acre wells
Current FVF, RB/STB			1.2 Based on est resvr press of 500 psi
Current Oil Saturation, %			54% $So = (1 - Npp/Nob)(Bo/Bohp)(1 - Swc)$
Current Gas Saturation, %			20% $Sg = (1 - Swc - So)$
Fill up volume, Mbbls			46050 $Wif = (Pore Vol * Sg)$
Avg Inj Rate/well, BWPD			489 Analogy to NEDU
No. of Inj wells			27 Proposed unit development
Total Injection, BWPD			13203 Avg Inj Rate x # of inj wells
Fillup time, yrs.			9.6 Fill up volume/total inj rate
80 acre 5 spot sec/primary ratio			0.41 Analogy to NEDU
Secondary reserves, MBO			5608 Ultimate Prim Rec x sec/prim ratio
			5% RF
40 acre 5 spot sec/primary ratio			0.2 Analogy to NEDU
Secondary reserves, MBO			2804 Ultimate Prim Rec x sec/prim ratio
			2% RF
Fully Developed Secondary Reserves, MBO			8411
			(1,041) 11 of 62 proration units (40 ac) inactive @ start of flood
			-1% RF
			(1,256) 27 of 62 proration units (20 ac) inactive @ start of flood
			-1% RF
			6114 Recommended Secondary Reserves
			5% RF

6.1 Million Barrels