

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	48	10.70%	30.0%	1.45	19236	2080	40010	82878
Drinkard	24	10.80%	26.5%	1.45	10197	1343	13695	27006
Total	72		28.8%			2080	53705	109884

*Blinebry/Drinkard Porosity and Water saturation based on log analysis of NEDU infill wells with full log suites using 6% porosity cutoff and 50% Sw cutoff.

	Blinebry	Drinkard	Total
Primary Recovery, MBO	0	0	8262
Remaining Reserves, MBO	0	0	190
Ultimate Prim Recovery, MBO	0	0	8452

Current Recovery Factor, % 15% Ultimate Prim Rec/OOIP
 Current FVF, RB/STB 1.15 Based on est resvr press of 300 psi
 Current Oil Saturation, % 48% $S_o = (1 - N_{pp}/N_{ob})(B_o/B_{obp})(1 - S_{wc})$
 Current Gas Saturation, % 23% $S_g = (1 - S_{wc} - S_o)$
 Fill up volume, Mbbls 25727 $W_{if} = (\text{Pore Vol} * S_g)$

Avg Inj Rate/well, BWPD 489 Analogy to NEDU
 No. of Inj wells 17 Proposed unit development
 Total Injection, BWPD 8313 Avg Inj Rate x # of inj wells
 Fillup time, yrs. 8.5 Fill up volume/total inj rate

80 acre 5 spot sec/primary ratio 0.41 Analogy to NEDU
 Secondary reserves, MBO 3465 Ultimate Prim Rec x sec/prim ratio

BEFORE THE
 OIL CONSERVATION DIVISION
 Case No. 13503 & 04 Exhibit No. **25**
 Submitted By:
 Apache Corporation
 Hearing Date: June 16, 2005