STATE OF NEW MEXICO
ENERGY, MINERALS AND NATRUAL RESOURCES
DEPARTMENT
OIL CONSERVATION DIVISION

CASE NO. 14338

EXHIBIT

8

Volumetric Drainage Calculation for Reba BNU State Com #5

a	1		
m	2.00		
n	2.00		
Rw	0.04	Ohm*m	Calculated from water sample and Schlumberger Log Interpretation Chart page 1-4 & 1-5
BHP*	3,794	psi	
BHT*	175	F	
h	16	ft	
phi	0.04		
Sw	0.45		Calculated from Archie Equation
Rs*	693	scf/bbl	
API	44	API	
SG	0.82		
Boi*	1.38	RB/STB	
Boa*	1.08	RB/STB	
Sga*	0.21		
EUR	38,471	STB	
Oil Volume	28	STB/acre*ft	=7758*phi*[(1-Sw)/Boi-(1-Sw-Sga)/Boa]
Drainage Volume	1,368	acre*ft	
Drainage Area	86	acre	
Recovery Factor	0.20		=1-(1-Sw-Sga)/(1-Sw)*Boi/Boa

* = Estimated value

(1) - Estimated from Figure 11-9 from McCain's The Properties of Petroleum Fluids 2nd Edition page 320
(2) - Equation 5.1 from Craft and Hawkins 2nd Edition page 150 for Solution Gas Drive reservoir
(3) - Equation 5.2 from Craft and Hawkins 2nd Edition page 150 for Solution Gas Drive reservoir

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Case No. ....14338 Exhibit No. 8
Submitted by:
YATES PETROLEUM CORPORATION
Hearing Date: July 9, 2009