Reservoir Data -- Rocky Mountain Oilfield Testing Center (RMOTC) -- NPR-3/Teapot Dome

Formation	Shannon	Steele Shale	Niobrara Shale	2nd Wall Creek	3rd Wall Creek	Muddy	Dakota	Lakota	Tensleep
Description	Offshore bar deposited in 2 upwardly coarsening sequences.	Five fractured shale units.	Two fractured shale units.	Shallow offshore bar sand grading downward into shale.	Discontinuous offshore sand bars, shaly.	Discontinuous marine channel sand.	Shallow offshore bar/channel sand. Very silty and shaly.	Channel sandstone conglomerate. N coarse grained, s clay-filled.	Dolomite-cemented dunal sand. 2 units separated by 10' - 15' dolomite. Strong H_2O drive.
Original Oil in Place, 10^6 STB	143.85	15.48	9.37	57.1	1.33	3.95	0.67	0.08	3.83
Original Gas in Place, 10^6 SCF	1440	1699	548	45127	348	1499	688	35	11
Area, acres	3800	8640	5120	3590		320			320
Average Porosity, %	18	N/A - Fractured	N/A - Fractured	15	10	13	10	15	8
Average Permeability, md	63	N/A - Fractured	N/A - Fractured	100	75	300	100	140	80
Average Net Thickness, ft	40 - Upper Shannon 25 - Lower Shannon	15	20	30	7	5	7	10	50
Reservoir Pressure, psi	25 - 70	25 - 180	25 - 250	25 - 250	50 - 300		25 - 200		2350
Depth, ft	250-1100	0-1500	1500-2300	2900	3100	3600	3800	3950	5500
Datum Elevation, ft MSL	4300	3572	3000	2280	2180	1680	1480	1380	-220
Cumulative Oil Produced, 10^6 STB	11.8	2.62	1.5	10.4	0.39	0.77	0.09	0.02	1.89
Cumulative Gas Produced, 10^6 SCF	712*	727	204	52,832*	211	4802*	257	194	0
Cumulative Water Produced, 10^6 bbl	44.50	0.17	0.20	58.80	0.46	0.18	0.20	0.33	196.67
Reservoir Temperature, deg F	65	96	102	125	128	138	163	162	190
Oil Gravity, deg API	29 - 35	38 - 42	38 - 42	38	38	41	37	36	32
Number of Wells									
Producing	451	64	51	72	6	9	4	1	8
Injection				4 gas		1 gas			
Shut-in	6	6	2	2	0	0	0	0	5
Temporarily Abandoned	0	1	0	0	0	0	0	0	1
Plugged and Abandoned	284	28	30	193	5	5	0	3	4
Dormant	0	1	0	1	0	0	0	1	0
Economic Limit, BOPD per well	0.3	0.3	0.3	0.6	0.5	0.5	0.3	0.5	3.75
Current Depletion Strategy	Produced primary wells by GD/SGD. Infill drilling.	GD/SGD, Infill drilling.	GD/SGD, Infill drilling.	Gas cap PM	GD/SGD	GD/SGD, cyclic GI	GD/SGD		Infill drilling, Electric submersible pump optimization.
Potential Recovery Processes	CO_2, HnP, MEOR, Srft	HzDr, HnP	HzDr, HnP	ASP Flooding, CO_2, HnP, Polymer Gel	Limited potential.		HzDr		CO_2, Water blocking agents
Previous Recovery Processes	Steamflood**, Natural Gas HnP*								

29.48	**Cumulative Oil Produced, 10^6 STB**
1593	**Cumulative Gas Produced, 10^6 SCF**
301.51	**Cumulative Water Produced, 10^6 bbl**

666	**Producing**
5	**Injection**
21	**Shut-in**
2	**Temporarily Abandoned**
552	**Plugged and Abandoned**
3	**Dormant**
1249	**Total**

Reservoir Characteristics and Production Data as of January 31, 2008

**Steam injected into Shannon from 1988 through 1995: 21.85 mmbbls

ASP - Alkaline-Surfactant Polymer
CO_2 - CO_2 Injection
GD - Gravity Drainage
GI - Gas Injection
HnP - Huff n Puff
HzDr - Horizontal Drilling
MEOR - Microbial EOR
MSL - Mean Sea Level
PM - Pressure Maintenance
SGD - Solution Gas Drive
Srft - Surfactant
WI - Water Injection

* Gas injection (10^6 SCF):

Shannon	153
2nd Wall Creek	45,092
Muddy	2,829

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