

Reservoir Data Sheet

Buffalo Valley (Penn) Study Area

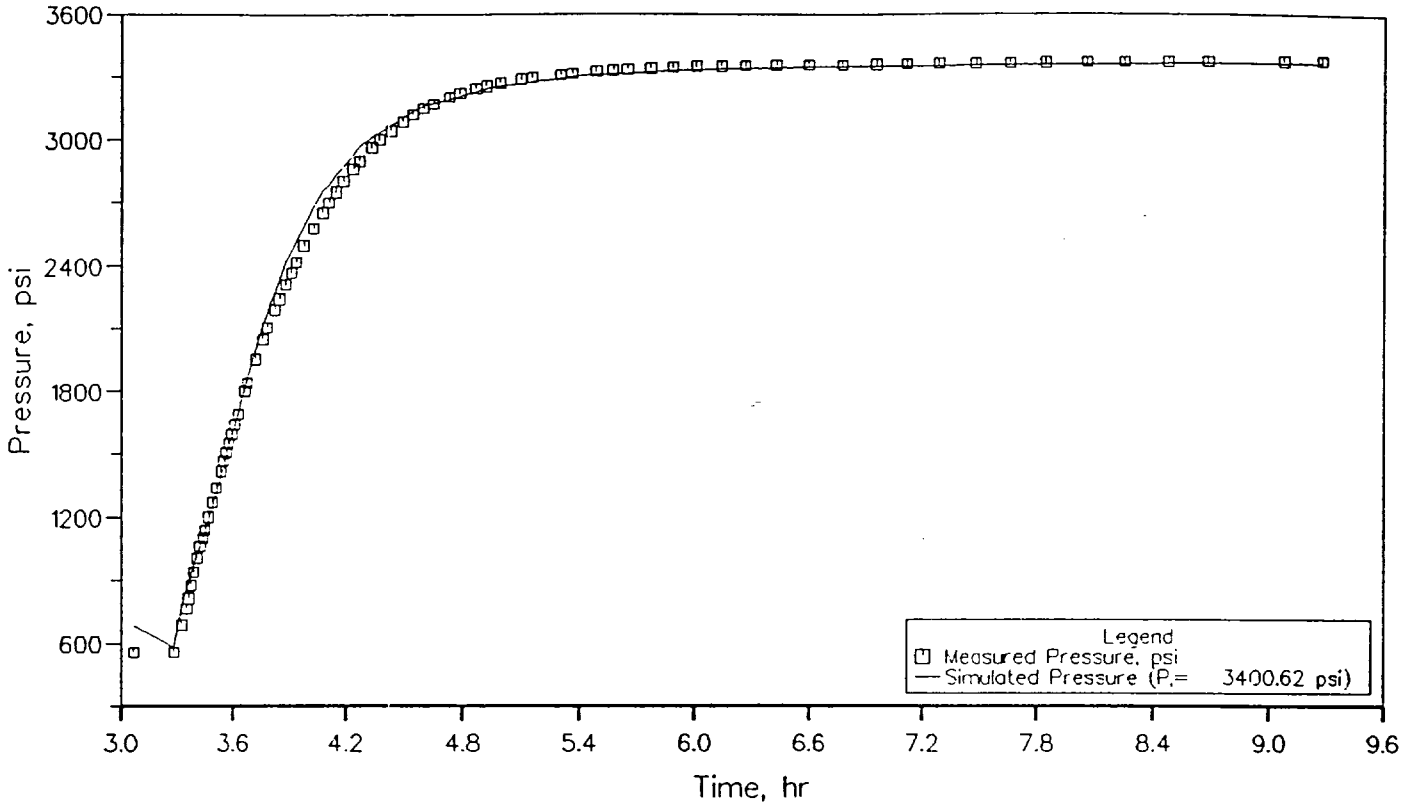
Depth (Approximately)	8,700 ft.
Initial Reservoir Pressure	3,400 psia
Reservoir Temperature	165 °F
Gas Gravity	0.65
Mole % CO ₂	0.5
Mole % N ₂	1.0
Mole % H ₂ S	0.0
Initial Gas Formation Volume Factor	216 scf/cu-ft

Original Gas In Place (Volumetrics) 85.7 BCF

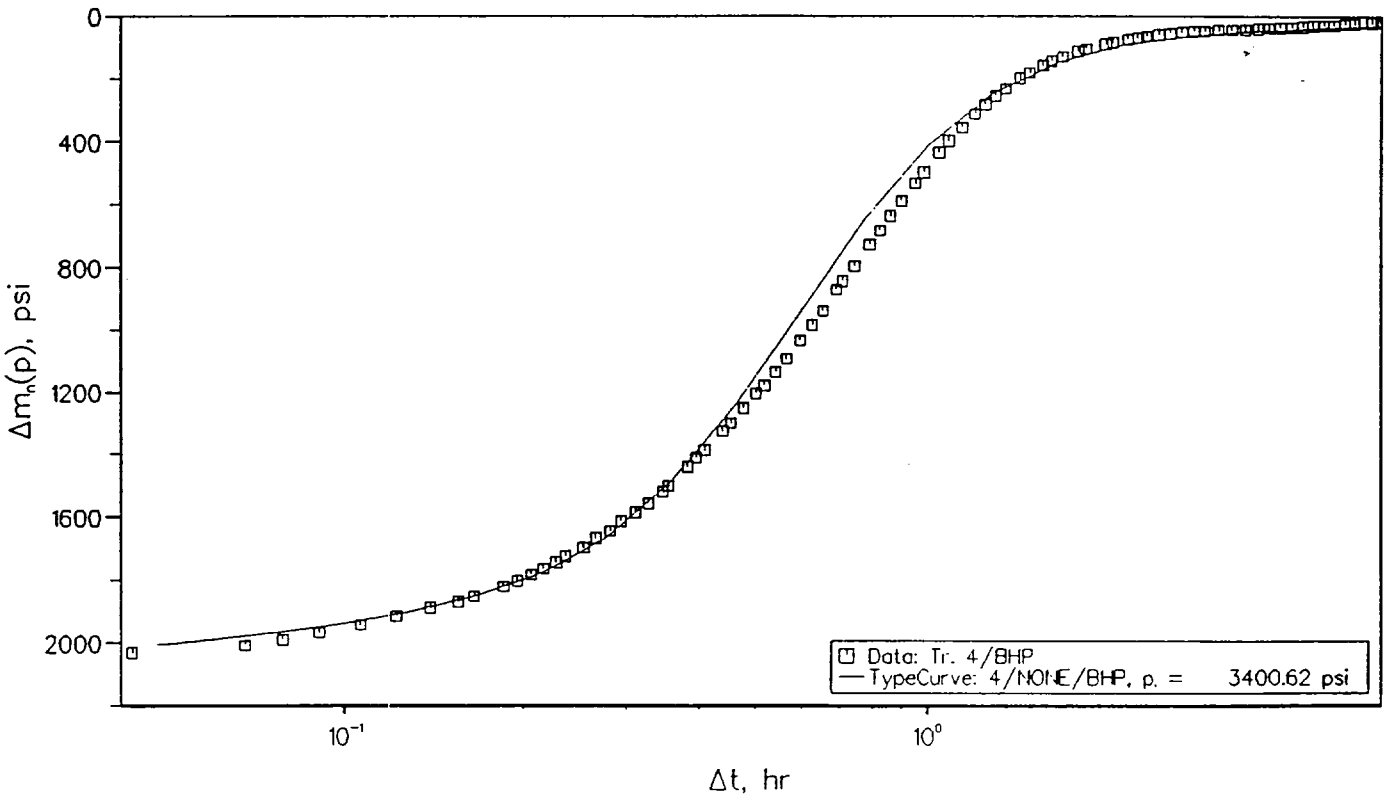
Discovery Date	November 1, 1962
Number of Producers in Study Area	22
Cumulative Production	54.5 BCF

VERIFICATION PLOTS
Transient 4

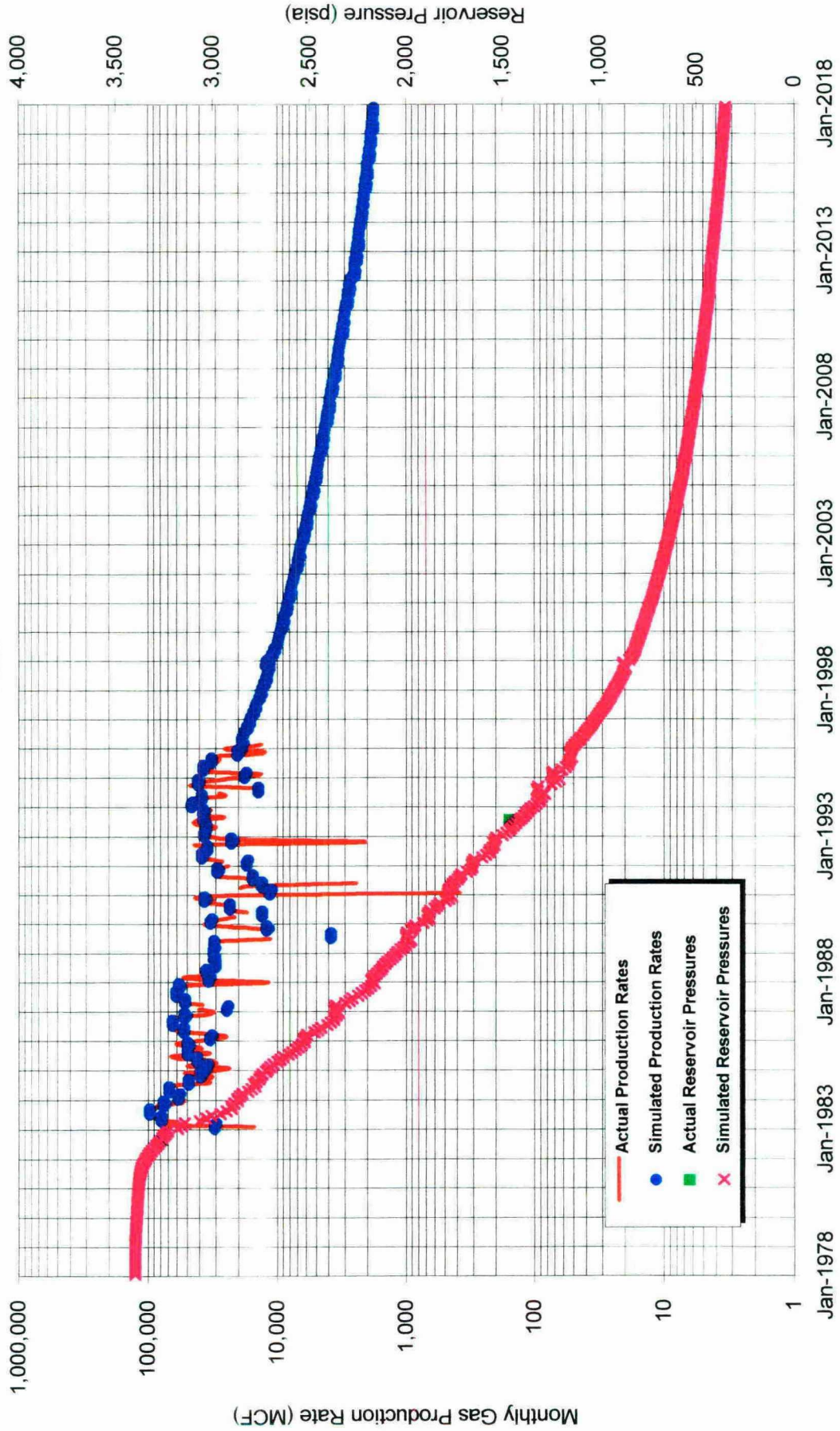
PRESSURE HISTORY SIMULATION



DIMENSIONLESS SUPERPOSITION PLOT



Reservoir Simulation History Match Data
Harris Federal No. 8
15S 27E 26F



**Initial Pressure Data
Buffalo Valley (Penn) Field Area
Chaves and Eddy Counties, New Mexico**

Well	Operator	API No.	Test Date	KB Elevation	Reservoir Pressure (psia)	Perforated Interval			Subsea Depth Mid Perf
						Upper	Lower	Mid Perf	
Harris Federal #4	Read & Stevens, Inc.	30-005-60781	9/11/81 11/30/81	3,520	3,070.0 2,262.2	8,728	8,746	8,737	5,217
Harris Federal #8	Read & Stevens, Inc.	30-005-61372	9/2/82	3,531	3,255.0	8,616	8,672	8,644	5,113
Harris Federal #9	Read & Stevens, Inc.	30-005-61373	10/18/82	3,529	3,274.0	8,480	8,550	8,515	4,986
Harris Federal #10	Read & Stevens, Inc.	30-005-62604	7/16/88	3,508	2,963.0	8,454	8,492	8,473	4,965
Harris Federal #2	Read & Stevens, Inc.	30-005-60277	2/1/75 11/25/75	3,617	2,721.2 1,507.2	8,566	8,572	8,569	4,952
Harris Federal #5	Read & Stevens, Inc.	30-005-60798	11/27/81	3,532	3,229.2	8,776	8,789	8,783	5,251
Harris Federal #6	Read & Stevens, Inc.	30-005-61038	3/15/82	3,637	3,313.0	8,734	8,788	8,761	5,124
Langley Federal #5	Read & Stevens, Inc.	30-005-62863		3,527		8,396	8,424	8,410	4,883
Langley Federal #3	Read & Stevens, Inc.	30-005-62266	9/4/85	3,556	2,968.0	8,522	8,570	8,546	4,990
Mojave Federal #1	Siete Oil & Gas Corp.	30-005-62846	5/30/91	3,486	2,103.2	8,202	8,242	8,222	4,736
Toles Federal #1	Depco, Inc.	30-005-60311	11/4/74	3,613	3,204.2	8,930	8,938	8,934	5,321
Toles Federal #2	Read & Stevens, Inc.	30-005-62271	10/11/85	3,648	2,437.0	8,744	8,762	8,753	5,105
Callaway Federal #3	Gulf Oil Corporation	30-015-23505	3/14/81	3,574	2,724.0	8,939	8,995	8,967	5,393
Pennzoil 9 Federal #1	Terra Resources, Inc.	30-015-25746	5/28/87	3,654	2,105.4	8,972	9,046	9,009	5,355
Callaway Federal #1	Gulf Oil Corporation	30-015-23060	2/18/80	3,543	2,926.0	8,804	8,826	8,815	5,272
Callaway Federal #2	Gulf Oil Corporation	30-015-23486	1/22/81	3,608	3,150.0	8,914	9,047	8,981	5,373
Coquina Federal #1	Depco, Inc.	30-015-23744	8/24/81	3,640	3,818.2	9,100	9,191	9,146	5,506
Crow Flats 4 Fed Com. #1	Jekalb Energy Company	30-015-26361	7/28/90	3,672	2,882.0	9,092	9,263	9,178	5,506
Depco Federal #1	Vesa Petroleum Co.	30-015-23229	6/10/80	3,639	3,173.2	9,100	9,197	9,149	5,510
Depco Federal #2	Vesa Petroleum Co.	30-015-24630	12/12/83	3,667	1,522.0	9,022	9,092	9,057	5,390
Derrick Federal Com #1	Vesa Petroleum Co.	30-015-23057	1/6/80	3,652	3,197.0	8,925	9,079	9,002	5,350
Derrick Federal #2	Vesa Petroleum Co.	30-015-23161	4/23/80	3,669	3,201.0	8,978	9,074	9,026	5,357
Diamond Federal #1	Read & Stevens, Inc.	30-005-61995		3,527		8,506	8,540	8,523	4,996
Harris Federal #7	Read & Stevens, Inc.	30-005-61179		3,495		8,606	8,678	8,642	5,147
Mesa State Com #3	Vesa Petroleum Co.	30-005-62255	10/11/85	3,638	2,809.3	9,042	9,050	9,046	5,408
State ET #2	Fora Oil Company	30-005-62662	3/3/89	3,617	1,507.0	8,909	8,975	8,942	5,325
State ET Gas Com #1	Amoco Production Co.	30-005-62029	7/24/83	3,667	3,400.0	8,996	9,066	9,031	5,364
Toles Federal #1	Read & Stevens, Inc.	30-005-60782		3,530		8,720	8,732	8,726	5,196
White State #1	Vesa Petroleum Co.	30-005-60670	6/11/80	3,595	3,239.0	8,909	8,988	8,949	5,354
White State #2	Vesa Petroleum Co.	30-005-60853	8/18/81	3,552	3,138.0	8,769	8,814	8,792	5,240
State ET #1	Amoco Production Co.	30-005-60461		3,604 Plugback		8,912 8,712	8,922 8,718	8,917 8,715	5,313 5,111
Langley Com #1	Read & Stevens, Inc.	30-005-60253	4/13/73	---	2,186.2	8,626	8,646	8,636	---
Rose #1	Read & Stevens, Inc.	30-005-60299	1/18/75 11/24/75	3,630 3,630	2,995.2 1,914.2	8,626 8,626	8,702 8,707	8,664 8,667	5,034 5,037
Rose Federal #4	Read & Stevens, Inc.	30-005-61597	12/6/82	3,617	2,385.0	8,468	8,789	8,629	5,012