

PUFFER STATE #1
D 24-8S-27E
CHAVES COUNTY, NEW MEXICO
CHAVES UNDESIGNATED GROUP 4A

A. PRODUCTION DATA

MONTH	BO	Mcf	BW	DAYS
JUL 91	29	19390	0	10
AUG 91	23	94576	0	31
SEP 91	0	92160	0	30
OCT 91	0	98570	0	30
NOV 91	0	122156	0	30
DEC 91	0	126776	0	31
JAN 92	0	150532	0	31
FEB 92	0	114821	0	27
MAR 92	125	131089	0	31
APR 92	850	126076	0	30
	1027	1076146	0	281

B. RESERVOIR DATA

PERFORATIONS = 6371-6452
TEMPERATURE = 128 F
INITIAL PRESSURE = 2450 psi
Z FACTOR = 0.838 from GAS COMPOSITION
Bg = 175.8 Scf/cf

C. HYDROCARBON(GAS) PORE VOLUME

INTERVAL	h	PHI	Sg	SgPHIh
6370-6375	6	0.065	0.78	0.304
6387-6452	66	0.103	0.72	4.895
6477-6492	16	0.088	0.75	1.056
	88	0.098	0.73	6.255

YATES PETROLEUM CORP.
BEFORE EXAMINER STOGNER
NMOCD CASE NO. 10489
DATE: 06/11/92
EXHIBIT NO. 10

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70% of its deliverability

D. FORECAST - 30 % PENALTY

PERIOD ENDING	BHP PUFFER STATE #1		YATES PROPOSED WELL	
	MMcf/D	CUM Bcf	MMcf/D	ACRES
05/01/92		1.076		25.0
09/01/92	4.2	1.593		37.0
01/01/93	4.0	1.961	2.8	45.5
06/01/93	4.0	2.689	2.8	62.4
01/01/94	3.0	3.235	2.1	75.1
01/01/95	1.5	3.782	1.1	87.7
			0.258	6.0
			0.768	17.8
			1.150	26.7
			1.533	35.6

$$Gp = (RF) (43560) (A) (SgPHH) (Bg)$$

RECOVERY FACTOR = 0.90 for PRODUCTION to about 150 psi

$$Gp = (0.9) (43560) (A) (6.255) (175.8)$$

$$Gp = 43.1(10^{**}6) (A)$$

$$AREA\ SWEPT = A = (Gp\ in\ MMcf)/43.1$$

derived by 90% in a good recovery factor for a good well.

GAS DEVIATION FACTOR

WELL : PUFFER STATE #1
DATE : FEB 26, 1991
SAMPLE : BENNETT & CATHEY

RESERVOIR TEMP =
RESERVOIR PRESSURE =

128 F
2450 psia

	MOLE PERCENT	MOLECULAR WEIGHT	CRITICAL PRESSURE psia	CRITICAL TEMP deg R	SAMPLE MOLECULAR WEIGHT	SAMPLE CRITICAL PRESSURE psia	SAMPLE CRITICAL TEMP deg R
CARBON DIOXIDE	1.700	44.01	1070.2	547.5	0.75	18.19	9.31
NITROGEN	4.370	28.02	492.2	227.0	1.22	21.51	9.92
HYDROGEN SULFIDE	0.000	34.08	1306.5	672.4	0.00	0.00	0.00
METHANE	85.110	16.04	673.1	343.2	13.65	572.88	292.10
ETHANE	5.460	30.07	708.3	549.9	1.64	38.67	30.02
PROPANE	1.860	44.09	617.4	666.0	0.82	11.48	12.39
ISO-BUTANE	0.280	58.12	529.1	734.6	0.16	1.48	2.06
N-BUTANE	0.540	58.12	550.1	765.7	0.31	2.97	4.13
ISO-PENTANE	0.170	72.15	483.5	829.6	0.12	0.82	1.41
N-PENTANE	0.170	72.15	489.8	846.2	0.12	0.83	1.44
HEXANE	0.340	86.17	440.1	914.2	0.29	1.50	3.11
HEPTANE	0.000	100.20	395.9	972.4	0.00	0.00	0.00
	100.000				19.10	670.34	365.89

SPECIFIC GRAVITY = 0.659
PSEUDOREduced PRESSURE = 3.655
PSEUDOREduced TEMP = 1.607
GAS DEVIATION FACTOR (Z) = 0.838