RECEIVED
JAN 5 1971
O. C. C.
ARTESIA, OFFICE

NEW MEXICO OIL CONSERVATION COMMSSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test			Test Date	
[X] Initial	[ ] Annual	[ ] Special	12-22-70	

Company	Connection	
SHENANDOAH OIL CORP.	NONE	
Pool	**Formation**	**Unit**
HAYSTACK	CISCO	

Completion Date	Total Depth	Plug Back TD	Elevation	Farm or Lease Name
12-18-70	6350'	6308'	4084' K	FEDERAL L

Csg. Size	Wt.	d	Set At	Perforations	Well No.
4 1/2"	9.5	4.090	6350'	From 5803' To 5922'	NO. 1

Tbg. Size	Wt.	d	Set At	Perforations	Unit	Sec.	Twp.	Rge.
2 3/8"	4.7	1.995	5725'	From OPEN To ENDED	B	21	6S	27E

Type Well – Single – Bradenhead – G.G. or G.O. Multiple	Packer Set At	County
SINGLE	5725'	CHAVES

Producing Thru	Reservoir Temp. °F	Mean Annual Temp. °F	Baro. Press. – P_a	State
TUBING	106° @ 5800'	600	13.2	NEW MEXICO

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
5863'	-	0.657	0.00	4.78	0.00	=	X	F

FLOW DATA / TUBING DATA / CASING DATA

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Press. p.s.i.g. DWT	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI							1980				72.0 HRS.
1.	3	34/64	2	750	77	67	1440	62	PACKER		1.0
2.	3	28/64	2	750	53	66	1600	64	"		1.0
3.	3	24/64	2	750	36	62	1715	58	"		1.0
4.	3	20/64	2	750	20	68	1830	57	"		1.0
5.											

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	21.32	242.42	763.2	0.9933	1.234	1.068	6765.9
2	21.32	201.12	763.2	0.9943	1.234	1.068	5619.0
3	21.32	165.76	763.2	0.9981	1.234	1.070	4657.4
4	21.32	123.54	763.2	0.9924	1.234	1.068	3444.9
5							

NO.	P_r	Temp. °R	T_r	Z
1	1.15	527	1.46	0.877
2	1.15	526	1.46	0.877
3	1.15	522	1.45	0.874
4	1.15	528	1.46	0.877
5				

Gas Liquid Hydrocarbon Ratio 53,783 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 65.8 Deg.
Specific Gravity Separator Gas 0.657 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 661 P.S.I.A. – P.S.I.A.
Critical Temperature 361 R – R

P_c 2380.2 P_c^2 5665541

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	--	2223.2	4942.6	722.8
2	--	2264.2	5126.6	538.8
3	--	2299.2	5286.3	379.1
4	--	2337.2	5439.2	226.2
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 7.838$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n =$ 3.126

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 22260$

RECEIVED
JAN 4 1971
U. S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

Absolute Open Flow 22250 Mcfd @ 15.025 Angle of Slope θ 60° 1" Slope, n 0.577

Remarks: * BHP @ (-1779') 5863' USED FOR PRESSURE CALCULATIONS

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
[illegible] RLS 1-5-71	COLEMAN PET. ENG.	JOE A. COLEMAN	JOE A. COLEMAN

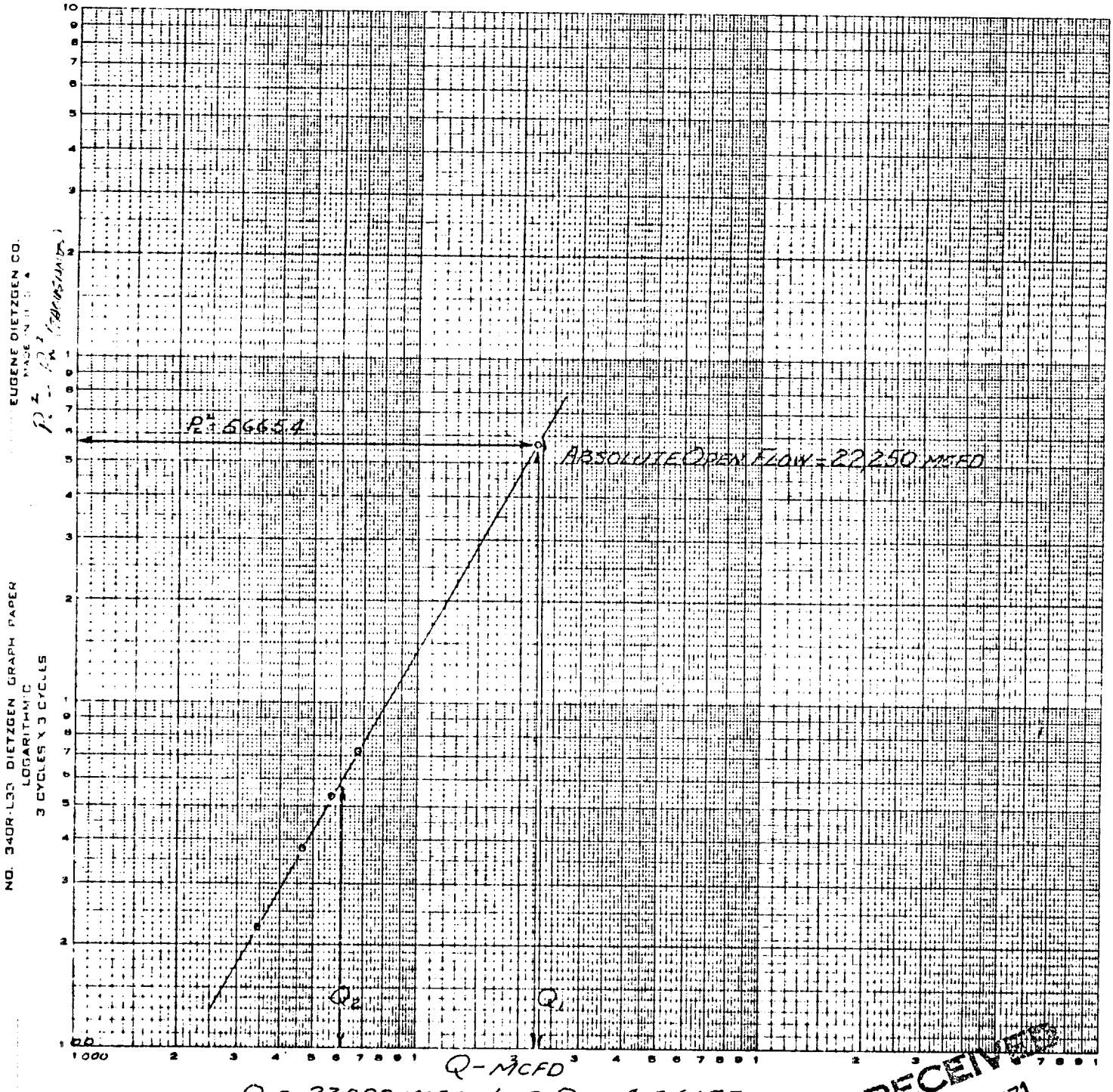
COMPANY SHENANDOAH OIL CORPORATION

WELL FEDERAL L, NO. 1

LOCATION UNIT F, SEC. 21 6S 27E

DATE DECEMBER 22, 1970

COUNTY CHAVES NEW MEXICO



Q_1 = 23000 MCFD; LOG Q_1 = 4.36173

Q_2 = 6090 MCFD; LOG Q_2 = 3.78462

n = 0.57711 = 0.577