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SEP 30 1982

O. C. D.
ARTESIA, OFFICE

Type Test: [X] Initial FOUR POINT [ ] Annual [ ] Special — Test Date: 7-15-82

Company: STEVENS OPERATING Corp. — Connection: AIR NEW WELL — Unit: J

Pool: ~~UNDESIGNATED~~ Pecos Slope Abo — Formation: ABO

Completion Date	Total Depth	Plug Back TD	Elevation	Farm or Lease Name
7-14-82	~~4254~~ 4251	4244	3696 KB	EDMONDSON FEDERAL

Csg. Size	Wt.	d	Set At	Perforations	Well No.
4.50	10.500	4.052	4251	From ~~3886~~ 3989 To ~~3912~~ 3921	4

Tbg. Size	Wt.	d	Set At	Perforations	Unit	Sec.	Twp.	Rge.
2.375	4.700	1.995	~~3858~~ 3904	From OPEN To ENDED	J	13	7S	25E

Type well – Single – Bradenhead – G.G. or G.O. Multiple	Packer Set At	County
SINGLE	NONE	CHAVES

Producing Thru	Reservoir Temp. °F	Mean Annual Temp. °F	Baro. Press. – P_a	State
TUBING	105 @ 3855	95	13.2	N.M.

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
3899	3899	.812	.39	51.55		2.00		

NO	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Tubing Data Press. p.s.i.g.	Tubing Data Temp. °F	B.H.P. Data Press. p.s.i.g.	B.H.P. Data CHOKE	Duration of Flow
SI							796	95	889		28 HRS.
1	2.00	X	.09375	618	00	99	736	97	825	6/64	1 HR
2	2.00	X	.125	342	00	96	679	98	761	6/64	1 HR
3	2.00	X	.125	368	00	100	620	100	696	6.5/64	1 HR
4	2.00	X	.125	387	00	94	559	100	628	7/64	1 HR
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	.1446	.00	631.2	.9645	1.1097	1.0174	99
2	.2716	.00	355.2	.9671	1.1097	1.0102	105
3	.2716	.00	381.2	.9636	1.1097	1.0107	112
4	.2716	.00	400.2	.9688	1.1097	1.0117	118
5							

NO	P_t	Temp. °R	T_r	Z
1	1.09	559	1.99	.966
2	.61	556	1.98	.980
3	.66	560	1.99	.979
4	.69	554	1.97	.977
5				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas _____ XXXXXXXXXX
Specific Gravity Flowing Fluid .8120 XXXXX
Critical Pressure 580 P.S.I.A. _____ P.S.I.A.
Critical Temperature 281 R _____ R

P_c 902.2 P_c^2 814.0

NO	P_w	P_w^2	$P_c^2 - P_w^2$
1	838.2	702.6	111.0
2	774.2	599.4	215.0
3	709.2	503.0	311.0
4	641.2	411.1	403.0
5			

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.0198$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.4212$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 167.7$

Post ID-2 10-8-82 Comp + BK

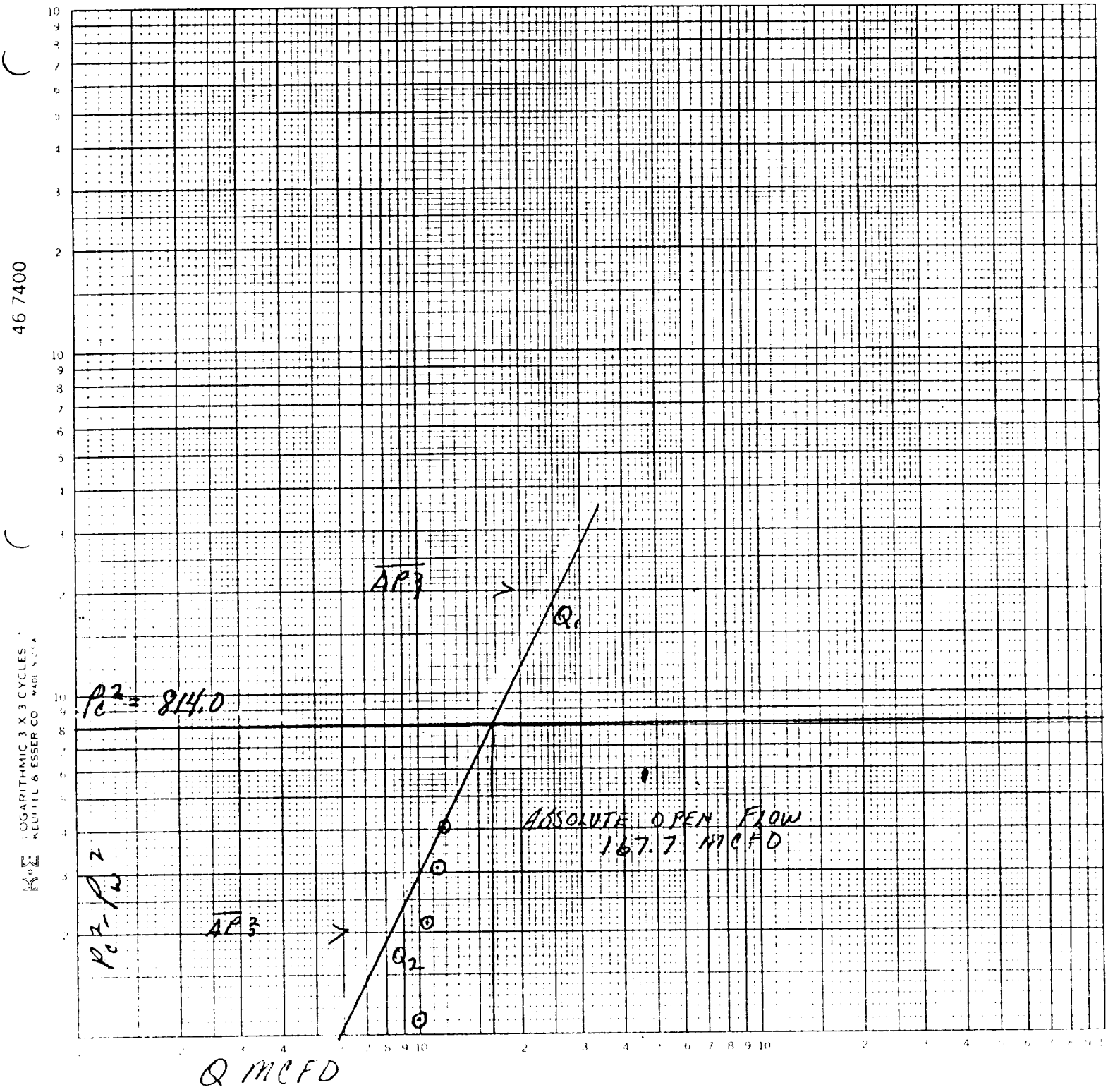
Absolute Open Flow ~~168~~ 167.7 Mcfd @ 15.025 — Angle of Slope θ 63.4 — Slope, n .5000

Remarks: BOTTOM HOLE PRESSURE MEASURED WITH AMERADA PRESSURE ELEMENTS.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	DON BENNETT	BENNETT-CATHEY	

Edmondson Federal Well 4
Unit J, Sec 13, Twp 7S, Rge 25E
Chaves County

7-15-82



$\overline{\Delta P}_1^2 \cdot P_c^2 - P_w^2 = 2.000$
$\overline{\Delta P}_2^2 \quad P_c^2 - P_w^2 = 200$

$Q_1 = 260.0$ mcfd
$Q_2 = 82.2$ mcfd

$\log Q_1 \quad 2.4150$
$\log Q_2 \quad 1.9150$
$n = \quad .5000$

NEW-TEX LAB
P.O. Box 1161
Hobbs, New Mexico 88240

ANALYSIS CERTIFICATE

CLIENT: BENNETT & CATHEY INC.
ADDRESS: BOX 787
CITY, STATE: ARTESIA NM 88210

ANALYSIS NUMBER: 7841
DATE OF RUN: 7 16 82
DATE SECURED: 7 15

SAMPLE IDENT: STEVENS OPERATING - EDMONDSON FEDERAL WELL #4
SAMPLING PRESS: SAMPLING TEMP:

REMARKS: SAMPLED AT 3:30 PM

********* GAS ANALYSIS *********

	MOLE PERCENT	GAL/ MCF
NITROGEN	51.545	
CARBON DIOXIDE	0.389	
METHANE	43.264	
ETHANE	2.676	0.714
PROPANE	1.125	0.309
ISO-BUTANE	0.183	0.060
NORMAL BUTANE	0.395	0.124
ISO-PENTANE	0.119	0.043
NORMAL PENTANE	0.131	0.047
HEXANES	0.078	0.032
HEPTANES PLUS	0.095	0.044
TOTAL	100.000	1.373

PROPANE GPM: 0.31
ETHANE GPM: 0.71
BUTANES GPM: 0.18
PENTANES PLUS GPM: 0.17

SPECIFIC GRAV (CALC): 0.8121
MOLE WEIGHT: 23.53

HHV-BTU/CU FT	PRESSURE (PSIA)	WET	DRY
	14.696	541	551
	14.650	539	549
	14.730	542	552
	14.735	542	552

ANALYZED BY:
R H HAMILTON

APPROVED BY:

BENNET · CATHEY

(505) 748—3354 / Artesia, New Mexico od210

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY STEVENS OPERATING COMPANY WELL NAME EDMONDSON FEDERAL WELL NO. 4

DATE OF TEST 7-15-82 FORMATION ABO PAGE 1 OF 1

COMPANY MAN MIKE VOWELL

CHART READINGS AND CALCULATIONS FOR BUILDUP OR DRAWDOWN TEST

ELEMENT NUMBER RPG3# 7201 B RANGE 0-3,200 LBS.

CLOCK NUMBER 27192 RANGE 72 HRS.

TIME WELL SHUT IN 0730 HRS. 7-14-82

TIME CLOCK STARTED 1030 HRS. 7-15-82

DEAD WEIGHT ELEMENT ON SURFACE 809 PSIA SHUT IN LBS.

TIME ELEMENT REACHED BOTTOM 1113 HRS. 7-15-82

DEAD WEIGHT ELEMENT ON BOTTOM 809 PSIA SHUT IN LBS.

ELEMENT SET AT 3,855 FEET.

TEMPERATURE 3,855 FT. 105° °F.

DEAD WEIGHT AT THE END OF HOURS MINUTES.

DATE	HOUR	TIME	DEFLECTION in/inches	CALCULATED PRESSURE psig	CORRECTION P ± PC psig	CORRECTED PRESSURE psia	PRESSURE AT MID-POINT OF PERFORATIONS psia
7-15-82							
START TEST	0	1130		889	13.2	902	
	1/4	1145		875	13.2	888	
	1/2	1200		853	13.2	866	
	3/4	1215		837	13.2	850	
END RATE 1	1	1230		825	13.2	838	
	1/4	1245		812	13.2	825	
	1/2	1300		791	13.2	804	
	3/4	1315		776	13.2	789	
END RATE 2	2	1330		761	13.2	774	
	1/4	1345		745	13.2	758	
	1/2	1400		725	13.2	738	
	3/4	1415		711	13.2	724	
END RATE 3	3	1430		696	13.2	709	
	1/4	1445		677	13.2	690	
	1/2	1500		660	13.2	673	
	3/4	1515		645	13.2	658	
END RATE 4	4	1530		628	13.2	641	

BENNET - CATHEY

(505) 748—3354 / Artesia, New Mexico 8 10

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY STEVENS OPERATING COMPANY WELL NAME EDMONDSON FEDERAL WELL NO. 4

DATE OF TEST 7-15-82 TO 7-17-82 FORMATION ABO

COMPANY MAN MIKE VOWELL

CHART READINGS AND CALCULATIONS FOR BUILDUP OR DRAWDOWN TEST

ELEMENT NUMBER RPG3# 7201 B RANGE 0-3,200 LBS.

CLOCK NUMBER 27192 RANGE 72 HRS.

TIME WELL SHUT IN 1530 HRS. 7-15-82

TIME CLOCK STARTED 1030 HRS. 7-15-28

DEAD WEIGHT ELEMENT ON SURFACE 809 PSIA SHUT IN LBS.

TIME ELEMENT REACHED BOTTOM

DEAD WEIGHT ELEMENT ON BOTTOM 809 PSIA SHUT IN LBS.

ELEMENT SET AT 3,855 FEET.

TEMPERATURE 3,855 FT. 105° °F.

891 PSIA DEAD WEIGHT AT THE END OF 51 HOURS 49 MINUTES.

DATE	HOUR	TIME	DEFLECTION in/inches	CALCULATED PRESSURE psig	CORRECTION P ± PC psig	CORRECTED PRESSURE psia	PRESSURE AT MID-POINT OF PERFORATIONS psia
7-15-82	0	1530		628	13.2	641	
	1/4	1545		638	13.2	651	
	1/2	1600		652	13.2	665	
	3/4	1615		664	13.2	677	
	1	1630		671	13.2	684	
	1 1/4	1645		680	13.2	693	
	1 1/2	1700		688	13.2	701	
	1 3/4	1715		695	13.2	708	
	2	1730		702	13.2	715	
	2 1/4	1745		709	13.2	722	
	2 1/2	1800		714	13.2	727	
	2 3/4	1815		718	13.2	731	
	3	1830		723	13.2	736	
	3 1/2	1900		734	13.2	747	
	4	1930		743	13.2	756	
	4 1/2	2000		750	13.2	763	
	5	2030		759	13.2	772	
	5 1/2	2100		768	13.2	781	
	6	2130		773	13.2	786	
	6 1/2	2200		780	13.2	793	
	7	2230		786	13.2	799	
	7 1/2	2300		791	13.2	804	
	8	2330		798	13.2	811	
	8 1/2	2400		803	13.2	816	
	9	2430		807	13.2	820	
7-16-82	9 1/2	0100		813	13.2	827	
	10	0130		818	13.2	831	
	11	0230		826	13.2	839	
	12	0330		835	13.2	848	
	13	0430		842	13.2	855	
	14	0530		849	13.2	861	
	15	0630		856	13.2	869	
	16	0730		862	13.2	875	
	17	0830		869	13.2	881	
	18	0930		875	13.2	888	
	19	1030		879	13.2	892	
	20	1130		885	13.2	898	
	22	1330		896	13.2	909	

Bryan Printers & Stationers Inc

BENNETT WIRE LINE SERVICE
Artesia, New Mexico 88210

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY STEVENS OPERATING COMPANY WELL NAME EDMONDSON FEDERAL WELL NO. 4
DATE OF TEST 7-15-82 - 7-17-82 LOCATION ABO PAGE 2 OF 2

CHART READINGS AND CALCULATIONS FOR BUILDUP OR DRAWDOWN TEST

DATE	HOUR	TIME	DEFLECTION in/inches	CALCULATED PRESSURE psig	CORRECTION P ± PC psig	CORRECTED PRESSURE psig	PRESSURE AT MID-POINT OF PERFORATIONS psig
7-16-82	24	1530		904	13.2	917	
	26	1730		912	13.2	925	
	28	1930		920	13.2	933	
	30	2130		927	13.2	940	
	32	2330		934	13.2	947	
7-17-82	34	0130		939	13.2	952	
	36	0330		945	13.2	958	
	38	0530		949	13.2	962	
	40	0730		953	13.2	966	
	42	0930		958	13.2	971	
	44	1130		961	13.2	974	
	46	1330		966	13.2	979	
	48	1530		970	13.2	983	
	50	1730		972	13.2	985	
	52	1930		975	13.2	988	
	53	2030		976	13.2	989	