

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-101
Revised 10-1-78

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LAND OFFICE NMMA	1
OPERATOR	1

APL # 30-021-20185

5A. Indicate Type of Lease
STATE ☐ FEE ☒

5. State Oil & Gas Lease No.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work b. Type of Well OIL WELL ☐ GAS WELL ☐ OTHER Carbon Dioxide ☐ DRILL ☒ DEEPEN ☐ PLUG BACK ☐ SINGLE ZONE ☒ MULTIPLE ZONE ☐		7. Unit Agreement Name
2. Name of Operator Etheldred T. Ross		8. Farm or Lease Name HAYOZ
3. Address of Operator Box 476, Panhandle, Texas 79068		9. Well No. 5
4. Location of Well UNIT LETTER <u>J</u> LOCATED <u>1980</u> FEET FROM THE <u>South</u> LINE AND <u>1980</u> FEET FROM THE <u>East</u> LINE OF SEC. <u>14</u> TWP. <u>19N</u> RGE. <u>30E</u> NMMPM		10. Field and Pool, or Wildcat Wildcat
		12. County Harding
19. Proposed Depth 2200 Feet		19A. Formation Tubb
20. Rotary or C.T. Rotary		
21. Elevations (Show whether DF, RT, etc.) 4483	21A. Kind & Status Plug. Bond Blanket-Current	21B. Drilling Contractor James Drilling Co.
		22. Approx. Date Work will start 11/20/83

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
12 1/4	9 5/8	36 lbs.	425 Feet	350	Surface
8 3/4	7	26 lbs.	2200 Feet	400	Surface

After drilling well, logs will be run and evaluation made.
Perforating and/or stimulating as necessary in attempting
commercial production.

Mud Program - Best to maintain good hole conditions.

COLLECT AND SACK SAMPLES FOR
NEW MEXICO BUREAU OF MINES, SOCORRO
AT AT LEAST TEN FOOT INTERVALS

APPROVAL VALID FOR 90 DAYS
PERMIT EXPIRES 2-7-84
UNLESS DRILLING UNDERWAY

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Signed Etheldred T. Ross Title Operator Date 11/06/83

(This space for State Use)

APPROVED BY Carl W. Hoag TITLE DISTRICT SUPERVISOR DATE 11/9/83

CONDITIONS OF APPROVAL, IF ANY:

OIL CONSERVATION COMMISSION TO BE NOTIFIED
WITHIN 24 HOURS OF BEGINNING OPERATIONS

All distances must be from the outer boundaries of the Section

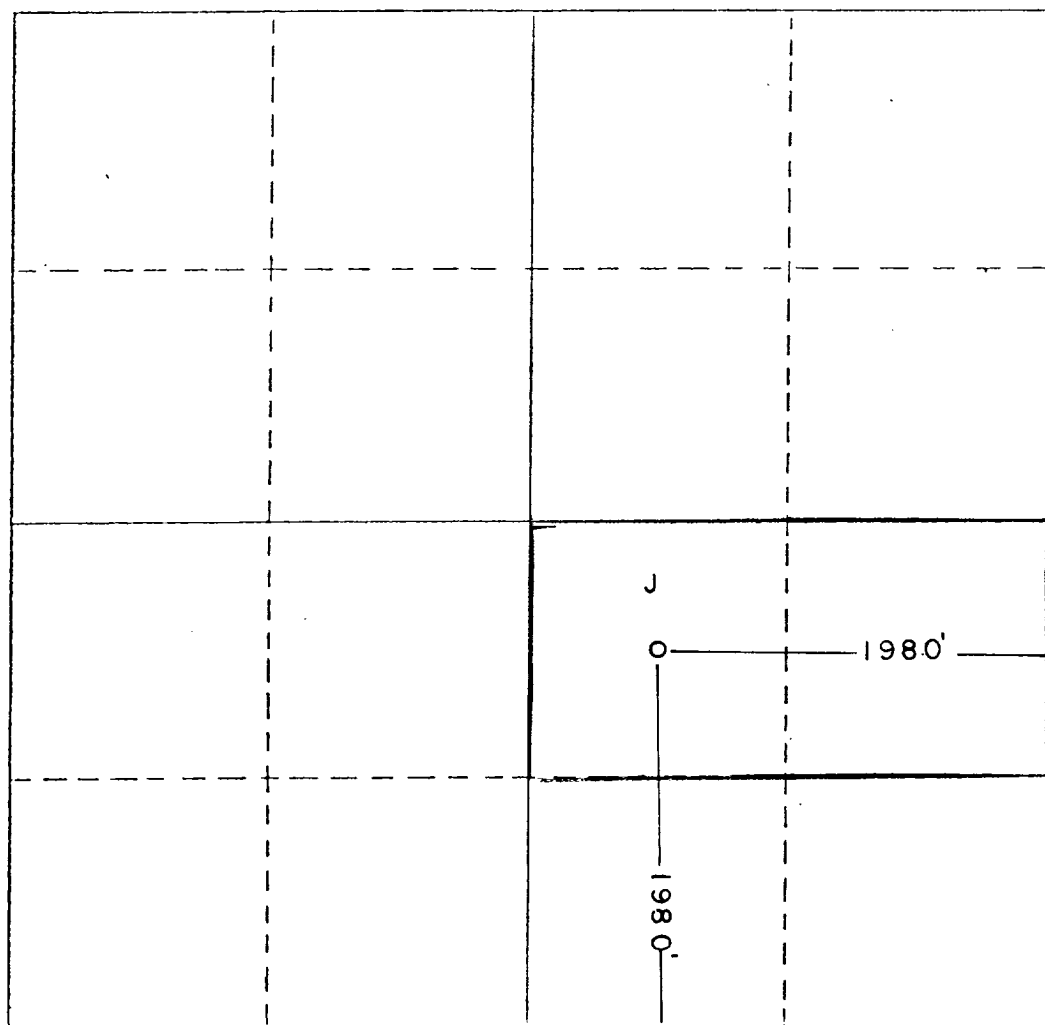
Operator E.T. Ross Carbonics		Lease Hayoz		Well No. 5
Unit Letter J	Section 14	Township 19 N	Range 30 E	County Harding
Actual Footage Location of Well: 1980 feet from the East line and 1980 feet from the South line				
Ground Level Elev. 4483	Producing Formation Tubbs	Pool Wildcat	Dedicated Acreage: 80 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Division.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name *Ethelred J. Ross*
Position *Operator*
Company _____

Date *11-6-83*

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

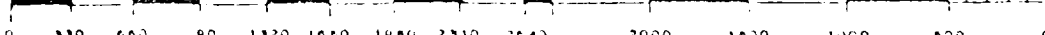
Date Surveyed
11-4-83

Registered Professional Engineer
and/or Land Surveyor

W.B. Ballchewale

Certificate No.

156C



OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088
SANTA FE, NEW MEXICO 87501Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date						
Company Ross Carbonics Inc.					Connection						
Pool Bravo Dome					Formation Tubb						
Completion Date 2-5-86			Total Depth 2200		Plug Back TD		Elevation 4483		Farm or Lease Name Hayoz		
Csq. Size 7	Wt. 26	d	Set At 2179.2	Perforations: From 2008 To 2062				Well No. 5			
Thq. Size 2 7/8	Wt. 6.5	d	Set At 1972	Perforations: From To				Unit Sec. Twp. Rge. J 14 19 30E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single					Packer Set At 1972 to 1978				County Harding		
Producing Thru Tubing		Reservoir Temp. °F 90 @ 2035		Mean Annual Temp. °F		Baro. Press. - P _a		State New Mexico			
L 2035	H 2035	G _g 1.529	% CO ₂ 100	% N ₂ 0	% H ₂ S 0	Prover	Meter Run 4.000	Taps flange			

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI	4.026	x	.500	488.0							
1.	"	"		180.00	46	74	334.5	50			1 hr
2.	"	"		150.0	46	74	304.8	50			1 hr
3.	"	"		120.0	52	83	290.2	50			1 hr
4.				90.0	61	85	276.2	50			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 F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1							91
2							84
3							80
4							76
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1					A.P.I. Gravity of Liquid Hydrocarbons	0
2					Specific Gravity Separator Gas	1.529
3					Specific Gravity Flowing Fluid	1072
4					Critical Pressure	547
5					Critical Temperature	

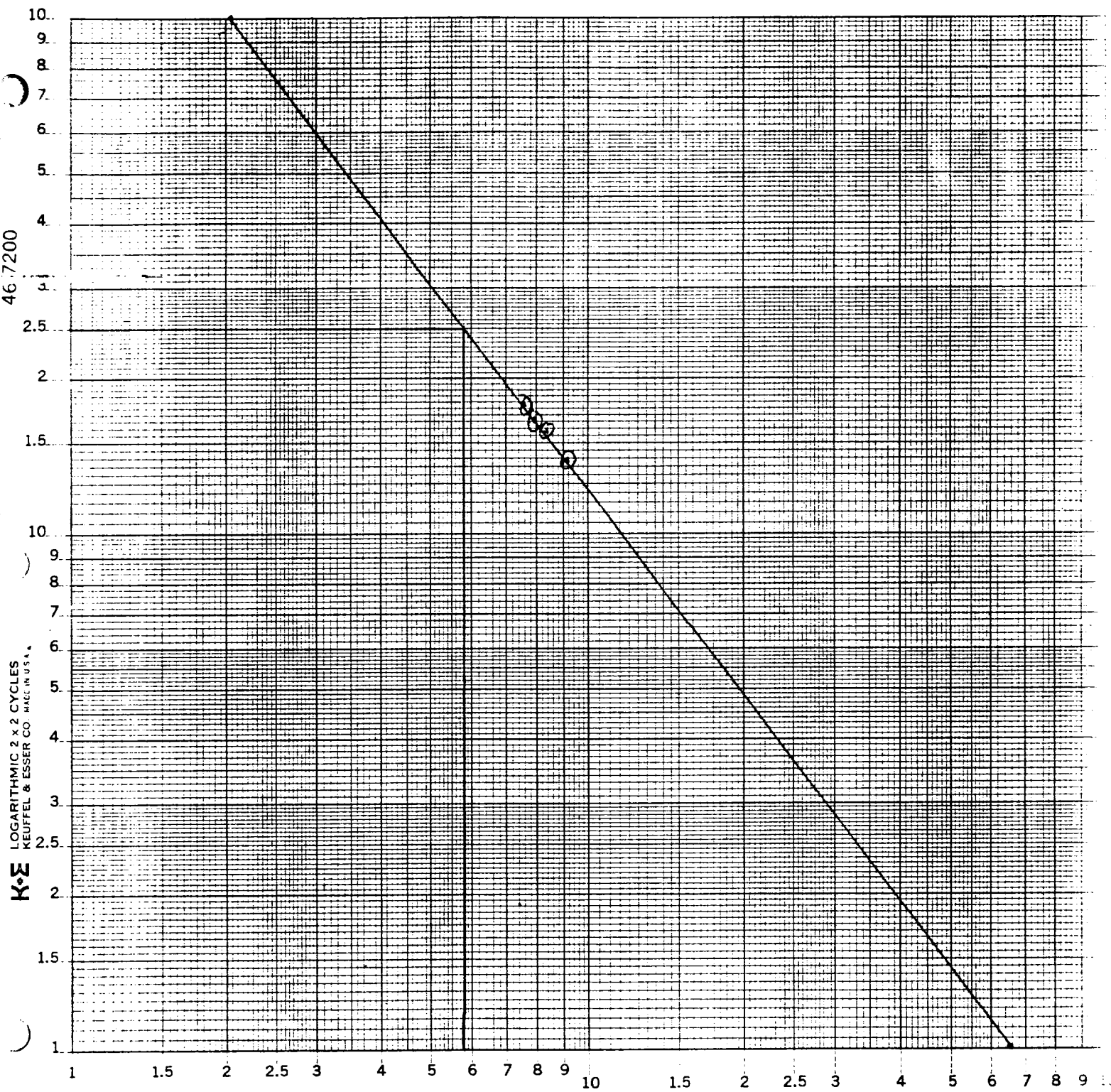
P _c 500.2	P _c ² 250.2	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.81$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = .63$
NO.	P _i ²	P _w	P _w ²
1	334.5	111.89	138.31
2	304.8	92.90	157.30
3	290.2	84.22	165.98
4	276.2	76.29	173.91
5			

AOE = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 48$

Absolute Open Flow	48	Mcf/d @ 15.025	Angle of Slope @	Slope, n = 1.33
Remarks:				
Approved by Division				
Conducted By:		Calculated By:		Checked By:

Aug 2 #5

pcz - pwz



1/2" = 5" m/c