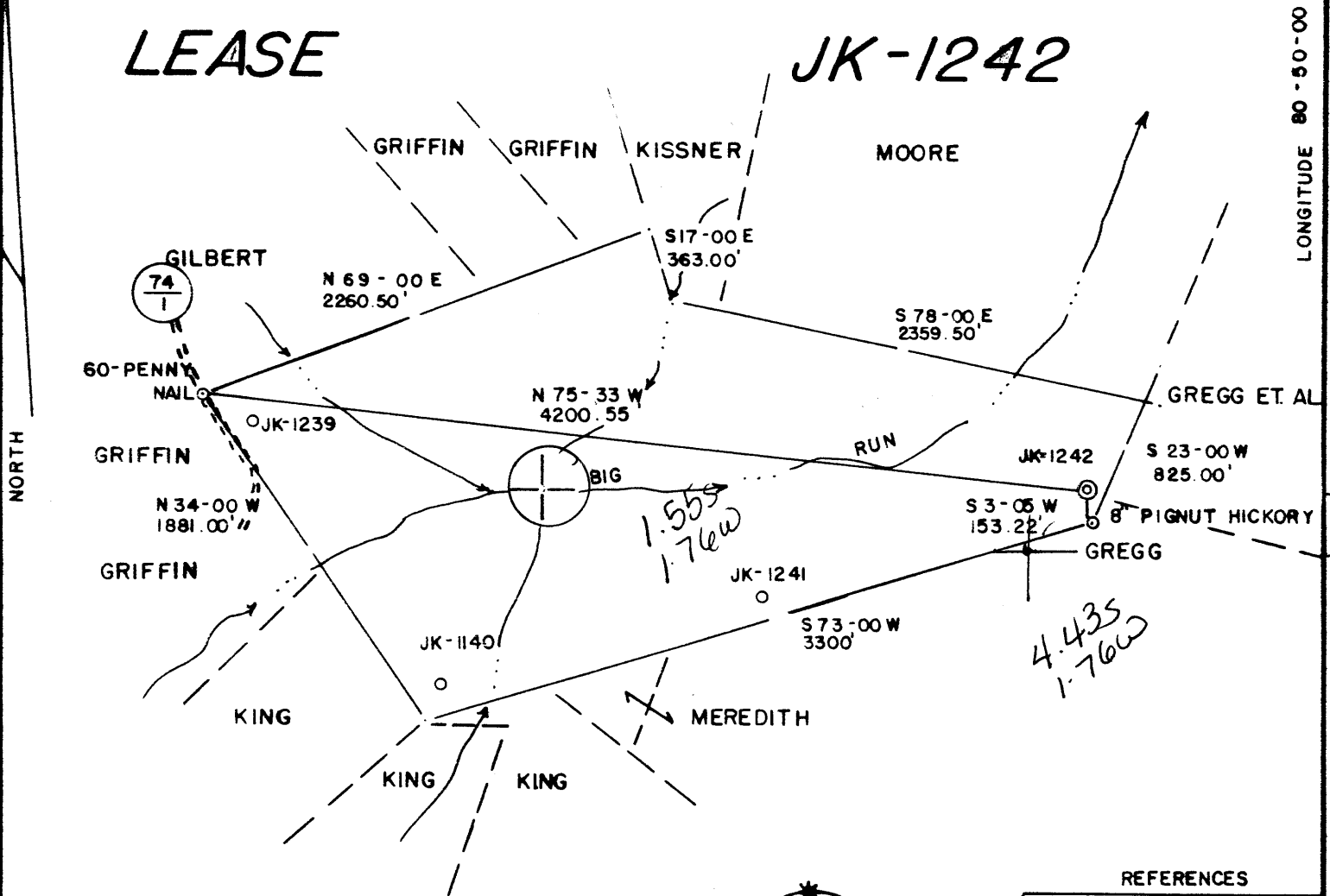
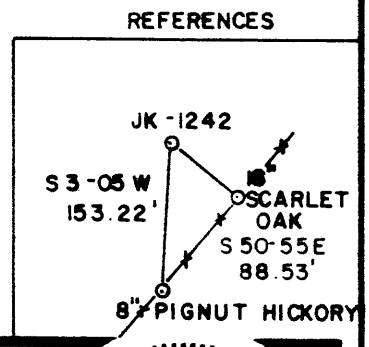
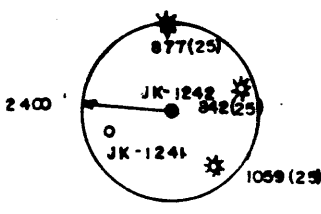


HESS LEASE

WELL NO. JK-1242

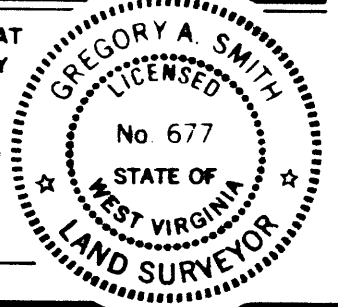


125 ACRES ±



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 DATE SEPT. 9, 1985
 OPERATORS WELL NO. JK-1242
 API WELL NO.
47 - 095 - 1114
 STATE COUNTY PERMIT

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENERGY.
 L.L.S. 677 *Gregory A. Smith*



MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 17-65
 PROVEN SOURCE OF ELEVATION TOP OF KNOB ELEV. = 1199' SCALE 1" = 800'



STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___ "GAS" PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
 LOCATION: ELEVATION 1087' WATERSHED BIG RUN
 DISTRICT CENTERVILLE COUNTY TYLER QUADRANGLE WEST UNION 7.5' 671
 SURFACE OWNER O.W. GRIFFIN ACREAGE 125 133 CS
 OIL & GAS ROYALTY OWNER GARNET I. HESS, et. al. LEASE ACREAGE 125
 PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF ___
 OLD FORMATION ___ PERFORATE NEW FORMATION ___ PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 OTHER PHYSICAL CHANGE IN WELL (SPECIFY) ___ TARGET FORMATION RHINE STREET
 ESTIMATED DEPTH 5995'

WELL OPERATOR J&J ENTERPRISES, INC. DESIGNATED AGENT RICHARD REDDECLIFF
 ADDRESS P.O. BOX 48, BUCKHANNON, WV 26201 ADDRESS P.O. BOX 48, BUCKHANNON, WV 26201

COUNTY NAME TYLER PERMIT 1114

6-6 Wilbur (92)

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Riley: Perforations: 4540-41 (4 holes) 4559-60(4 holes) 4574-76(3 holes) 4585-87(8 holes)
 Fracturing: 315 sks. 20/40 sand: 100 gallon acid.
 Benson: Perforations: 4959-60 (8 holes)
 Fracturing: 400 sks. 20/40 sand: 500 gallon acid: 398 Bbls. fluid.
 Alexander: Perforations: 5258-60 (8 holes)
 Fracturing: 300 sks. 20/40 sand: 500 gallon acid: 398 Bbls. fluid.
 Devonian Shale: Perforations: 5875-83 (16 holes)
 Fracturing: 300 sks. 20/40 sand: 275 Bbls. fluid.

BOTTOM HOLE PRESSURE Pf=Pwe XGLS

$$t=60 + (0.0075 \times 5965) + 459.7=564 \quad X=\frac{1}{53.35} \times \frac{1}{564} = \frac{1}{30113} = 0.000033 \quad Pf=1400 \times 2.72^{(0.000033)}$$

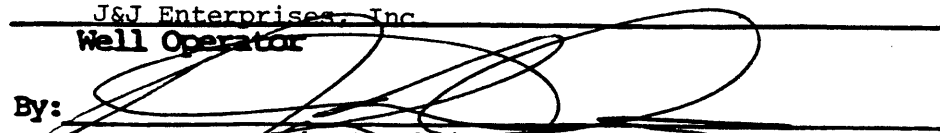
$$(0.661)(5212)(0.9) = 1400 \times 2.72^{0.1} = 1400 \times 1.1$$

1540. psi

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Sandy shale & red rock			0	10	Damp @ 260'
Shale, sand & sandy shale			10	270	
Coal			270	274	Dusting @ 325'
Sandy shale & sand			274	320	
Sandy shale & red rock			320	560	Wet @ 589'
Sand & sandy shale			560	740	
Sandy shale & sand			740	1215	
Coal			1215	1219	Dusting @ 1370'
Sandy shale & sand			1219	1332	
Sandy shale & white sand			1332	1580	Gas ck @ 2040 16/10-2" w/water 169,000 cu.ft.
Sandy shale & sand			1580	1740	
Sandy shale			1740	1915	
Little Lime			1915	1930	Gas ck @ 2473 24/10-2" w/water 207,000 cu.ft.
Shale			1930	1935	
Big Lime			1935	1990	
Sand & sandy shale			1990	2390	Gas ck @ 2937 24/10-2" w/water 207,000 cu.ft.
Sandy shale & sand			2390	3035	
Sand & sandy shale			3035	3995	
Sand & sandy shale			3995	4540	Gas ck @ 3468 20/10-2" w/water 189,000 cu.ft.
Riley			4540	4587	
Sand & shale			4587	4959	
Benson			4959	4960	Gas ck @ 3995 18/10-2" w/water 179,000 cu.ft.
Sand & shale			4960	5258	
Alexander			5258	5260	
Sand & shale			5260	5875	Gas ck @ 4613 32/10-2" w/water 239,000 cu.ft.
Devonian Shale			5875	5883	
Sandy shale			5883	5976	Gas ck @ 4978 30/10-2" w/water 231,000 cu.ft.
				T.D.	
Up Res	3070	1070			Gas ck @ 5292 30/10-2" w/water 231,000 cu.ft.
Lower Res	4140	1320			
Lower	5460	200			Gas ck @ collars 18/10-2" w/water 179,000 cu.ft.
Upper	5660	225			
Rhinestreet	5885				

(Attach separate sheets as necessary)

J&J Enterprises, Inc.
 Well Operator
 By: 
 Date: 12/6/85 Robert Dahlin Geologist

Note: Regulation 2.02(i) provides as follows:
 "The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."

7/85

RECEIVED
SEP 30 1985



1) Date: September 26, 1985
 2) Operator's Well No. JK-1242
 3) API Well No. 47 -095-1114
 State County Permit

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY, OIL AND GAS DIVISION
 DIVISION OF OIL & GAS
 DEPARTMENT OF ENERGY **APPLICATION FOR A WELL WORK PERMIT**

- 4) WELL TYPE: A Oil / Gas
 B (If "Gas", Production / Underground storage / Deep / Shallow)
- 5) LOCATION: Elevation: 1087' / Watershed: Big Run
 District: Centerville / County: Tyler / Quadrangle: West Union 7.5'
- 6) WELL OPERATOR J & J Enterprises, CODE: 24150 7) DESIGNATED AGENT Richard Reddecliff
 Address P.O. Box 48 / Address P.O. Box 48
Buckhannon, WV 26210 / Buckhannon, WV 26201
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Robert Lowther
 Address General Delivery
Middlebourne, WV 26149
- 9) DRILLING CONTRACTOR: Name S.W. Jack Drilling Co.
 Address P.O. Box 48
Buckhannon, WV 26201
- 10) PROPOSED WELL WORK: Drill / Drill deeper / Redrill / Stimulate
 Plug off old formation / Perforate new formation
 Other physical change in well (specify) _____
- 11) GEOLOGICAL TARGET FORMATION, Rhine Street 401
 12) Estimated depth of completed well, 5995' feet
 13) Approximate trata depths: Fresh, 130' feet; salt, N/A feet.
 14) Approximate coal seam depths: N/A Is coal being mined in the area? Yes / No

15) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS	
	Size	Grade	Weight per ft.	New	Used	For drilling			Left in well
Conductor	11 3/4	H-40	42	X		30'	0'	0 Sacks	Kinds
Fresh water	8 5/8	ERW	23	X		1087'	1087'	To Surface	<i>by rule 15-01</i>
Coal	8 5/8	ERW	23	X		1087'	1087'	To Surface	Sizes
Intermediate									
Production	4 1/2	J-55	10.5	X		5995'	5945'	300 Sacks	Depths set
Tubing								or as required	by rule 15-01
Lin...									Perforations:
									Top Bottom

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-095-1114 Date September 30 1985

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector. (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.

Permit expires September 30, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <input checked="" type="checkbox"/>	Agent: <u>ALB</u>	Plat: <u>MX</u>	Casing: <u>MX</u>	Fee: <u>2079</u>	WPCP: <input checked="" type="checkbox"/>	S&E: <input checked="" type="checkbox"/>	Other: <input type="checkbox"/>
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NOTE: Keep one copy of this permit posted at the drilling location.

Margaret J. Lasse
 Director, Division of Oil and Gas

File

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.