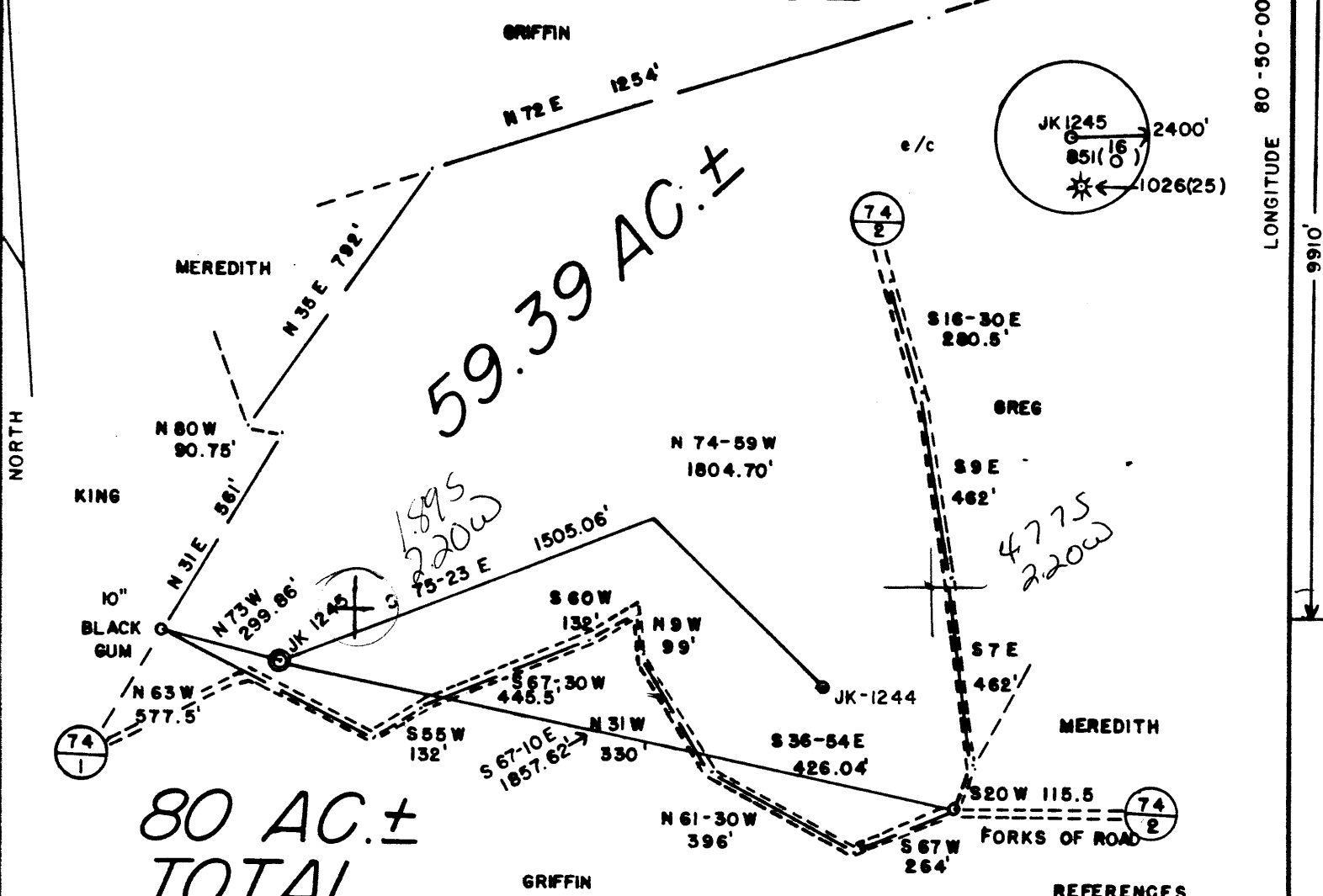


WELL NO.
JK-1245

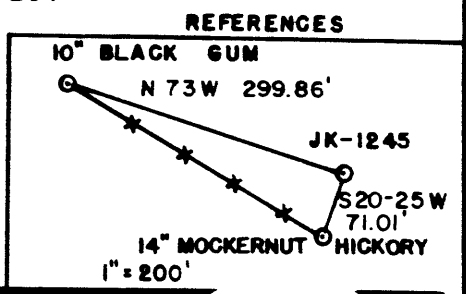
MEREDITH
LEASE

LATITUDE 39-22-30



80 AC.±
TOTAL

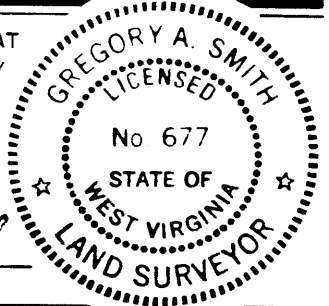
SLS SMITH LAND SURVEYING



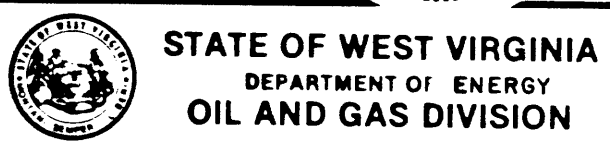
(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
DATE OCT. 18, 1985
OPERATORS WELL NO. JK-1245
API WELL NO. 47-095-1120
STATE COUNTY PERMIT

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. 17-73
PROVEN SOURCE OF ELEVATION TOP OF KNOB ELEV. 1199' SCALE 1" = 400'



WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 1186' WATERSHED BIG RUN
DISTRICT CENTERVILLE / COUNTY TYLER QUADRANGLE WEST UNION 7.5' 67/133

SURFACE OWNER ROY A. MEREDITH ACREAGE 59.39
OIL & GAS ROYALTY OWNER ROY A. MEREDITH, et. al. LEASE ACREAGE 59.39 OF 80

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE 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' ± 1985

WELL OPERATOR J&J ENTERPRISES, INC. 427 DESIGNATED AGENT RICHARD M. REDDECLIFF
ADDRESS P.O. BOX 48 BUCKHANNON, WY 26101 ADDRESS P.O. BOX 48 BUCKHANNON, WY 26101

00-05-08 ADJUTANT

0166

COUNTY NAME

PERMIT



V-35
rev 8-81)

State of West Virginia
Department of Mines
Oil and Gas Division

Date December 18, 1985
Operator's
Well No. JK-1245
Farm Roy Meredith
API No. 47 - 095 - 1120

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil / Gas x / Liquid Injection / Waste Disposal /
(If "Gas," Production x / Underground Storage / Deep / Shallow x /)

LOCATION: Elevation: 1186 Watershed Big Run
District: Centerville County Tyler Quadrangle West Union 7.5

COMPANY J&J Enterprises, Inc.
ADDRESS P.O. Box 48, Buckhannon, WV 26201
DESIGNATED AGENT Richard Reddecliff
ADDRESS P.O. Box 48, Buckhannon, WV 26201
SURFACE OWNER Roy A. Meredith
ADDRESS Rt. # 1, Box 233, Washington, WV 26181
MINERAL RIGHTS OWNER Same as surface
ADDRESS
OIL AND GAS INSPECTOR FOR THIS WORK Robert Lowther
ADDRESS General Delivery Middlebourne, WV 26181
PERMIT ISSUED 10/28/85
DRILLING COMMENCED 11/5/85
DRILLING COMPLETED 11/21/85
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON

Casing Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"	30.40	30.40	0 sks.
9 5/8			
8 5/8	1347.60	1347.60	290 sks.
7			
5 1/2			
4 1/2	5467.20	5467.20	275 sks.
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Rhine Street Depth feet
Depth of completed well 5667 feet Rotary x / Cable Tools
Water strata depth: Fresh 690 feet; Salt 0 feet
Coal seam depths: None Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Alexander Pay zone depth 5358-73 feet
Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d
Combined Final open flow 1,143 Mcf/d Final open flow Bbl/d
Time of open flow between initial and final tests 4 hours
Static rock pressure 1650 psig (surface measurement) after 96 hours shut in
(If applicable due to multiple completion--)
Second producing formation Benson & Riley Pay zone depth 4664-95 feet
Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d
Final open flow Mcf/d Oil: Final open flow Bbl/d
Time of open flow between initial and final tests hours
Static rock pressure psig (surface measurement) after hours shut in

(Continue on reverse side) DEC 30 1985

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

Alexander: 5358-60 (7 holes) 5371-73 (7 holes)
 Fracturing: 450 sks. 20/40 sand: 500 gal. acid: 520 Bbls. fluid.
 Benson: 5064-65 (8 holes)
 Fracturing: 400 sks. 20/40 sand: 500 gal. acid: 475 Bbls. fluid.
 Riley: 4664-66 (3 holes) 4674-75 (6 holes) 4684-85 (4 holes) 4694-95 (6 holes)
 Fracturing: 500 sks. 20/40 sand: 500 gal. acid: 600 gal. acid.

BOTTOM HOLE PRESSURE Pf=PweXGLS

$$t=60 + (5467 \times 0.0075) + 459.7 = 560.7 \quad X = \frac{1}{53.34} = \frac{1}{(53.34)(560.7)} = \frac{1}{29907} = 0.0000334$$

$$Pf=(1650)(2.72)(0.0000334)(0.661)(5018.5)(0.9) \quad Pf=(1650)(2.72)(0.0997) = (1650)(1.105)$$

Pf=1823 psi

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fres and salt water, coal, oil and ga
Red rock			0	20	
Sandy shale & sand			20	288	
Sand & sandy shale			288	835	½" stream @ 690'
Sandy shale & red rock			835	1055	
Sandy shale & sand			1055	1595	Gas ck @ 2259 No show
Sandy shale & sand			1595	1740	
Sand & sandy shale			1740	2015	Gas ck @ 2507 No show
Little Lime			2015	2025	
Sandy shale			2025	2040	Gas ck @ 3559 No show
Big Lime			2040	2115	
Sand & sandy shale			2115	2540	Gas ck @ 4705 No show
Sandy shale & sand			2540	3815	
Sandy shale			3915	4664	Gas ck @ 5076 No show
Riley			4664	4695	
Sandy shale			4695	5064	Gas ck, @ 5387 NO show
Benson			5064	5065	
Sandy shale & sand			5065	5358	Gas ck @ collars 4/10-2" w/wate
Alexander			5358	5373	84,000 cu.ft.
Sandy shale & sand			5373	5667	
				T.D.	Top Dev @ 2630'
				Christ @ TD Alexander	

(Attach separate sheets as necessary)

J&J Enterprises, Inc.

Well Operator

By: Daniel F. Stark

Date: 12/18/85

Daniel F. Stark -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."



1) Date: October 14, 19 85
 2) Operator's Well No. JK-1245
 3) API Well No. 47 - 095-1120
 State _____ County _____ Permit _____

RECEIVED
OCT 28 1985

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY, OIL AND GAS DIVISION

DIVISION OF OIL & GAS APPLICATION FOR A WELL WORK PERMIT
 DEPARTMENT OF ENERGY

- 4) WELL TYPE: A Oil _____ / Gas X
 B (If "Gas", Production X / Underground storage _____ / Deep _____ / Shallow X)
- 5) LOCATION: Elevation: 1186' Watershed: Big Run
 District: Centerville 407 County: Tyler Quadrangle: West Union 7.5'
- 6) WELL OPERATOR J&J Enterprises, INC CODE: 24150 7) DESIGNATED AGENT Richard M. Reddecliff
 Address P.O. Box 48 Address P.O. Box 48
Buckhannon, WV 26201 Buckhannon, WV 26201
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:
 Name Robert Lowther Name S.W. Jack Drilling Co.
 Address General Delivery Address P.O. Box 48
Middlebourne, WV 26419 Buckhannon, WV 26201
- 10) PROPOSED WELL WORK: Drill X / Drill deeper _____ / Redrill _____ / Stimulate X
 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, 125' feet; salt, N/A feet.
 14) Approximate coal seam depths: N/A Is coal being mined in the area? Yes _____ / No X
- 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		
Conductor	11 3/4	H-40	42	X		250 30'	250 0'	0 Sacks <u>as by rule 15-01</u>
Fresh water	8 5/8	ERW	23	X		1786'	1786'	To Surface
Coal	8 5/8	ERW	23	X		1786'	1786'	To Surface
Intermediate								
Production	4 1/2	J-55	10.5	X		5995'	5945'	300 Sacks of <u>as required by rule 15-01</u>
Tubing								
Liners								

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-095-1120 Date October 28 19 85

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 October 28, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <input checked="" type="checkbox"/>	Agent: <input checked="" type="checkbox"/>	Plat: <input checked="" type="checkbox"/>	Casing <input checked="" type="checkbox"/>	Fee <input checked="" type="checkbox"/>	WPCP <input checked="" type="checkbox"/>	S&E <input checked="" type="checkbox"/>	Other <input type="checkbox"/>
			<u>MW MW</u>	<u>2097</u>			

NOTE: Keep one copy of this permit posted at the drilling location.

Margaret J. Hesse
 Director, Division of Oil and Gas

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