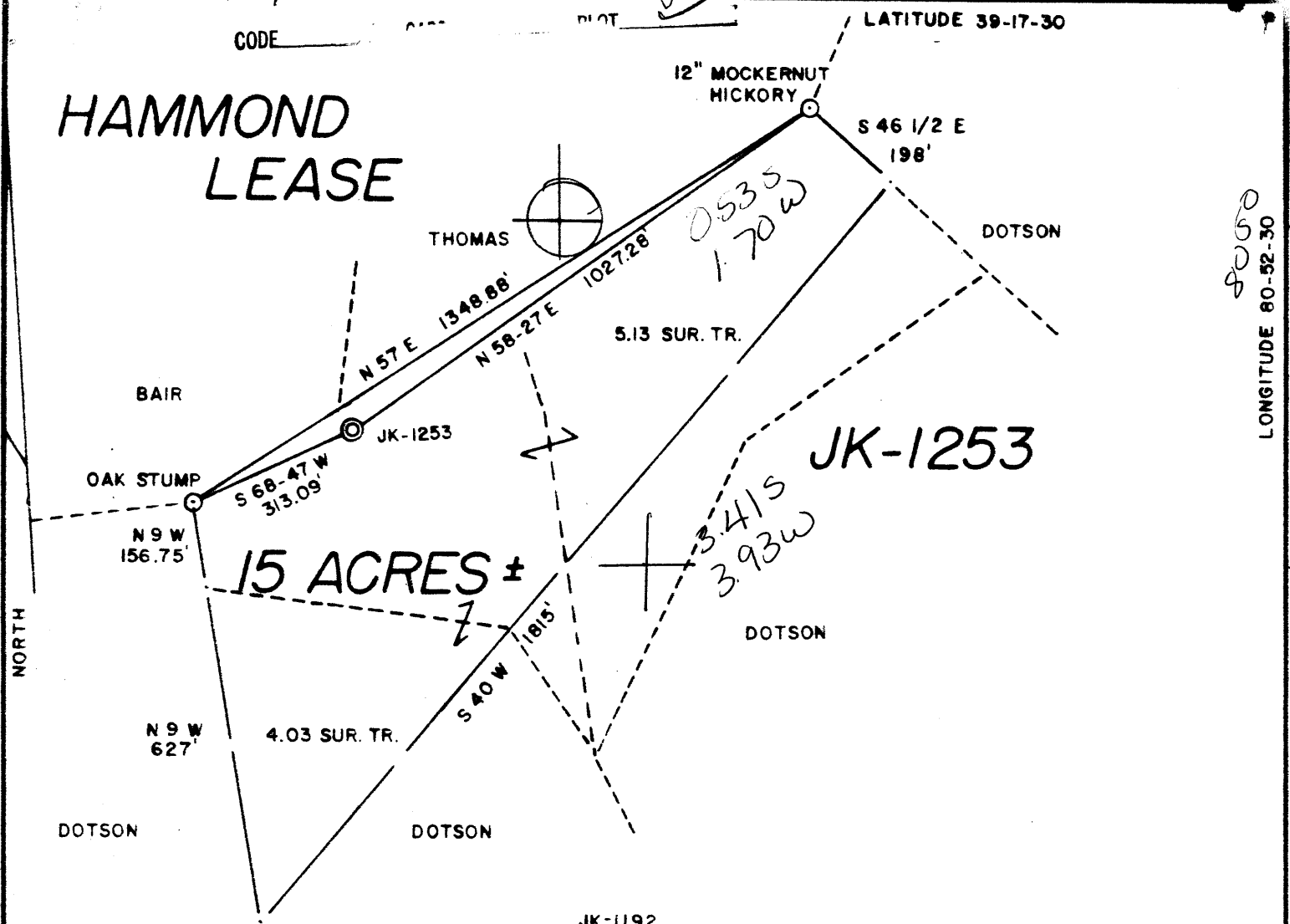
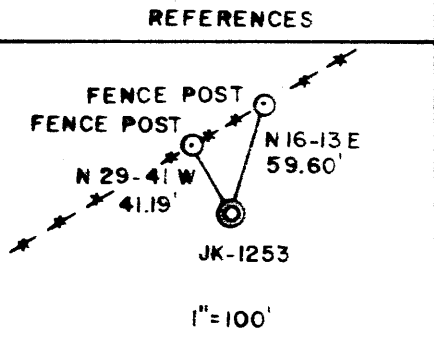
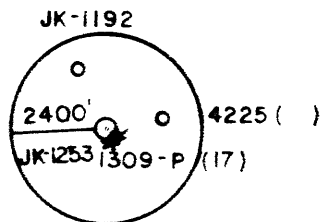


HAMMOND LEASE



15 ACRES ±

JK-1253

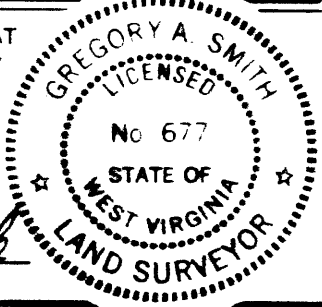


SLS SMITH LAND SURVEYING

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 DATE DECEMBER 19, 1985
 OPERATORS WELL NO. JK - 1253
 API WELL NO.
47 - 085 - 7499
 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. 18-67
 PROVEN SOURCE OF ELEVATION TOP OF KNOB ELEV. 1145 SCALE 1"=300'



STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1158' WATERSHED YEAGER RUN DISTRICT CLAY 1 COUNTY RITCHIE QUADRANGLE PENNSBORO 7.5' 539
 SURFACE OWNER HOMER K. DOTSON ACREAGE 6.91 133
 OIL & GAS ROYALTY OWNER H.L. HAMMOND HRS. LEASE ACREAGE 15 508
 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'

WELL OPERATOR J&J ENTERPRISES, INC. 421 DESIGNATED AGENT RICHARD REDDECLIFF
 ADDRESS P.O. BOX 48 BUCKHANNON, WV 26201 ADDRESS P.O. BOX 48 BUCKHANNON, WV 26201 1986

NORTH

LONGITUDE 80-52-30

COUNTY NAME 085

PERMIT 7490

575



IV-35
(Rev 8-81)

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DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

State of West Virginia

Department of Mines

Oil and Gas Division

Date April 8, 1987
Operator's
Well No. 1 - 2516
Farm Anna Barker #1
API No. 47 - 085 - 7499

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 / Underground Storage / Deep / Shallow XX /)

LOCATION: Elevation: 1158' Watershed Yeager Run
District: Clay County Ritchie Quadrangle Pennsboro

COMPANY Union Drilling, Inc.
ADDRESS P.O. Drawer 40, Buckhannon, WV 26201
DESIGNATED AGENT Joseph C. Pettey
ADDRESS P.O. Drawer 40, Buckhannon, WV 26201
SURFACE OWNER Homer K. Dotson
ADDRESS Box 134, Toll Gate, WV 26442
MINERAL RIGHTS OWNER
ADDRESS

OIL AND GAS INSPECTOR FOR THIS WORK
Samuel Hersman ADDRESS P.O. Box 66, Smithville, WV 26178
PERMIT ISSUED 3/5/86
DRILLING COMMENCED 2/11/87
DRILLING COMPLETED 2/17/87

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"			
9 5/8			
8 5/8	1468.25	1468.25	460 cf
7			
5 1/2			
4 1/2		5395.88	380 cf
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Rhine Street Depth 5995' feet
Depth of completed well 5548' feet Rotary XXX / Cable Tools
Water strata depth: Fresh 90' feet; Salt 1587' feet
Coal seam depths: none Is coal being mined in the area? no

OPEN FLOW DATA

Producing formation Riley, Benson, Alexander Pay zone depth 5277' feet
Gas: Initial open flow 15 Mcf/d Oil: Initial open flow Bbl/d
Final open flow 907 Mcf/d Final open flow Bbl/d
Time of open flow between initial and final tests 4 hours
Static rock pressure 1375# psig (surface measurement) after 48 hours shut in
(If applicable due to multiple completion--)
Second producing formation Pay zone depth 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)

APR 20 1987

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

Halliburton - 3 stage Foam Frac - 2/25/87

4598/4602 - Riley - 50,000# sand, 705 bbls fluid and 608,000 scf nitrogen
4615/4618

4980/4984 - Benson - 35,000# sand, 610 bbls fluid and 420,000 scf nitrogen

5267/5277 - Alexander - 40,000# sand, 664 bbls fluid and 445,000 scf nitrogen

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS	
					Including indication of all fresh and salt water, coal, oil and gas	
Fill & Shale			0	48	1/2" stream fresh water @90'	
Sand			48	73		
Sand & Shale			73	113		
Red Rock			113	183		
Sand & Shale			183	634		
Red Rock			634	664		
Sand & Shale			664	795		
Red Rock			795	836		
Sand & Shale			836	1973		hole wet @1587'
Big Lime			1973	2040		
Injun			2045	2151		
Riley			4581	4636		
Benson			4979	4989		
Alexander			5244	5296		
				5548'	Gas check @TD 2/10th thru 1" w/w = 15.mcf	

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DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

(Attach separate sheets as necessary)

Union Drilling, Inc,

Well Operator

By: Joseph C. Pettey

Date: Joseph C. Pettey, Vice President of Production

4/8/87

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."

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1) Date: January 17, 1986
 2) Operator's Well No. JK-1253
 3) API Well No. 47-085-7499
 State County Permit

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

- 4) WELL TYPE: A Oil / Gas X
 B (If "Gas", Production X / Underground storage / Deep / Shallow X)
- 5) LOCATION: Elevation: 1158' Watershed: Yeager Run
 District: Clay 409 County: Ritchie Quadrangle: Pennsboro 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 Name Samuel Hersman
 Address P.O. Box 66
Smithville, WV 26178
- 9) DRILLING CONTRACTOR: Name S.W. Jack Drilling Co.
 Address P.O. Box 48
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 441
- 12) Estimated depth of completed well, 5995' feet
- 13) Approximate strata depths: Fresh, 175' ~ 358' feet; salt, N/A feet.
- 14) Approximate coal seam depths: ~ 509' #A Is coal being mined in the area? Yes / No X
- 15) CASING AND TUBING PROGRAM From Permit # 085-1309
4" SCAM

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	X	390' 30"	390' 0"	0 Sacks C.T.S. <u>By rule 1505</u>	
Fresh water	8 5/8	ERW	23	X		1758'	1758'	To Surface	Sizes
Coal	8 5/8	ERW	23	X		1758'	1758'	To Surface	
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

** TO BE RUN IF FRESH WATER IS ENCOUNTERED **

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-085-7499 Date March 5 19 86

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 March 5, 1988 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u>✓</u>	Agent: <u>ALB</u>	Plat: <u>MS</u>	Casing: <u>MN</u>	Fee: <u>2125-</u>	WPCP: <u>AS</u>	S&E: <u>AS</u>	Other: <u> </u>
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John H. Houston by Margaret J. Kasse
 Director, Division of Oil and Gas

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

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