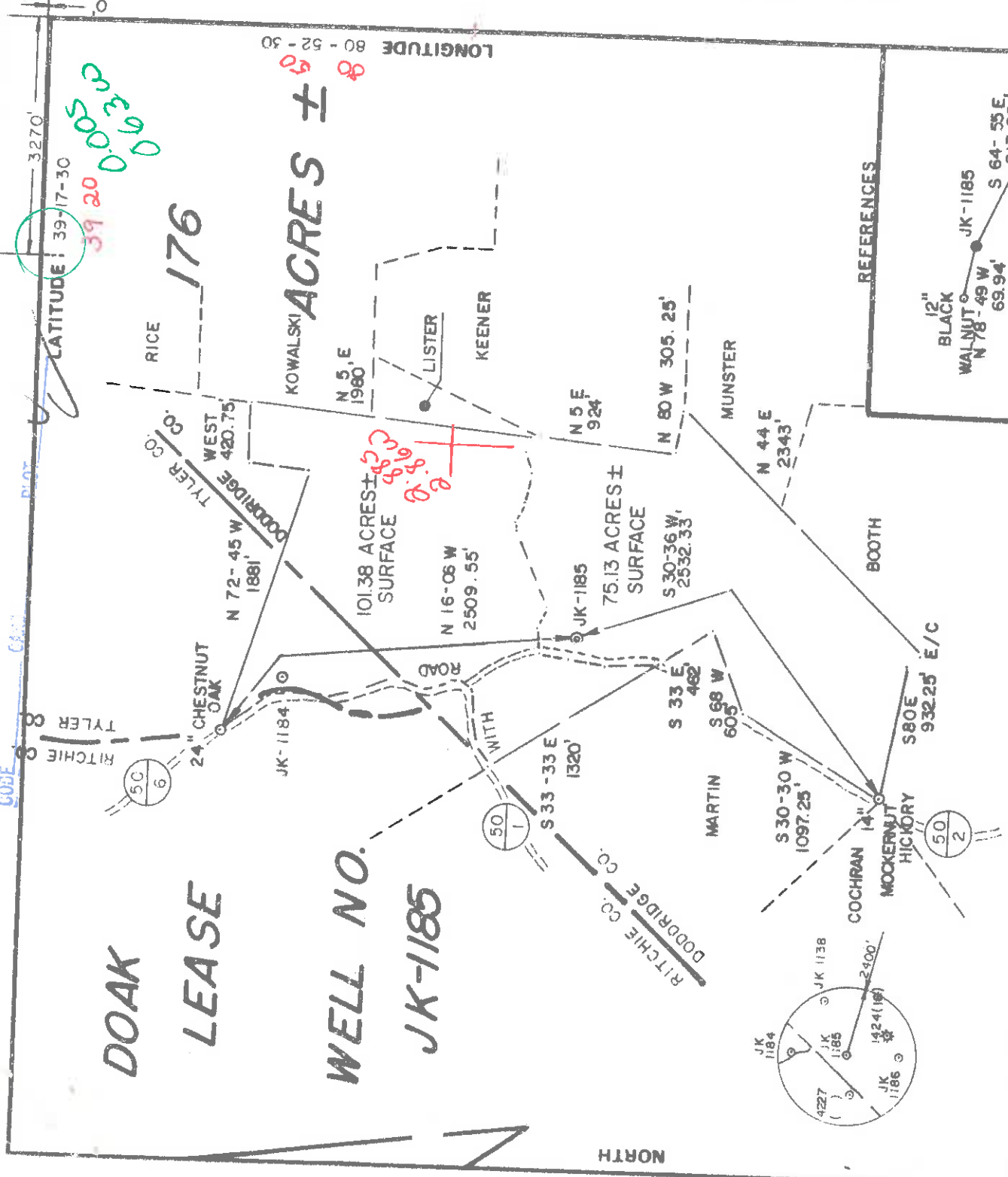


WV-6



SMITH LAND SURVEYING

FILE NO. 18-4
 DRAWING NO. M.L.P.
 SCALE 1"=1000'
 MINIMUM DEGREE OF ACCURACY 1/200'
 PROVEN SOURCE OF ELEVATION TOP OF KN08
ELEV. = 1175'

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.
 (SIGNED) Gregory A. Smith
 R.P.E. L.L.S. 677

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6
 (8-78)



DATE FEBRUARY 28, 19 85
 OPERATOR'S WELL NO. JK-1185
 API WELL NO. 47-017-3467
 STATE WV COUNTY BUCKHANNON PERMIT 176

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 1134' WATER SHED YEAGER RUN
 DISTRICT CENTRAL COUNTY DODDRIDGE
 SURFACE OWNER ROBERT RASEY, et. al. ACREAGE 75.13
 OIL & GAS ROYALTY OWNER ROBERT RASEY, et. al. LEASE ACREAGE 176

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON CLEAN OUT AND REPLUG
 TARGET FORMATION RHINE STREET ESTIMATED DEPTH 5996'
 WELL OPERATOR J.B.J. ENTERPRISES, INC. DESIGNATED AGENT RICHARD REDDECLIFF
 ADDRESS P.O. BOX 48 427 ADDRESS P.O. BOX 48
BUCKHANNON, WV 26201 BUCKHANNON, WV 26201

6-6 Greenwood (89)

KEEP 100%



Date October 22, 1985
 Operator's Well No. JKS-1185
 Farm Rasey
 API No. 47-017-3467

State of West Virginia
 Department of Mines
 Oil and Gas Division

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: 1134 Watershed Yeager Run
 District: Central County Doddridge Quadrangle Pennsboro 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 Robert Rasey

ADDRESS 1033 Yorktown Drive

Sunnyvale, CA 94087

MINERAL RIGHTS OWNER Same as surface

ADDRESS _____

OIL AND GAS INSPECTOR FOR THIS WORK Mike

Rt. # 2, Box 114

Underwood Salem, WV 26426

PERMIT ISSUED 9/11/85

DRILLING COMMENCED 9/30/85

DRILLING COMPLETED 10/6/85

IF APPLICABLE: PLUGGING OF DRY HOLE ON
 CONTINUOUS PROGRESSION FROM DRILLING OR
 REWORKING. VERBAL PERMISSION OBTAINED
 ON _____

Casing & Tubing Size	Used in Drilling	Left in Well	Cement fill up Cu. ft.
20-16 Corl.			
13-10"	211	211	100 sks.
9 5/8			
8 5/8	1707.85	1707.85	125 sks.
7			
5 1/2			
4 1/2	5944.30	5944.30	390 sks.
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Rhine St.

Depth of completed well 5992 feet Rotary x / Cable Tools _____

Water strata depth: Fresh 1617 feet; Salt 0 feet

Coal seam depths: None Is coal being mined in the area? NO

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth 5912-22 feet

Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Bbl/d

Combined Final open flow 622 Mcf/d Final open flow _____ Bbl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure 1425 psig (surface measurement) after 96 hours shut in

(If applicable due to multiple completion--)

Second producing formation Alexander, Benson & Riley

Pay zone depth 4584-4610 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

NOV 4 1985
 (Continue on reverse side)

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

Riley: Perforations: 4584-4610 (14 holes)
Fracturing: 350 sks. 20/40 sand: 500 gal. acid: 468 Bbls. fluid.
Benson: Perforations: 4978-80 (8 holes)
Fracturing: 350 sks. 20/40 sand: 500 gal. acid: 435 Bbls. fluid.
Alexander: Perforations: 5266-78 (16 holes)
Fracturing: 400 sks. 20/40 sand: 500 gal. acid: 470 Bbls. fluid.
Devonian Shale: Perforations: 5912-22 (16 holes)
~~Fracturing: 300 sks. 20/40 sand: 500 gal. acid: 440 Bbls. fluid.~~

From Well
BOTTOM HOLE PRESSURE Pf=PweXGIS $\frac{1}{1}$ $\frac{1}{30104}$ =0.000033 Pf=1425 x 2.72 (0.000033) (0.661)

t=60 + (0.0075 x5944) + 459.7 =564 X=53.35 x 564 =30104
(52.53) (0.9) =1425 x 2.72 0.1 =1425 x 1.1 WELL LOG

Pf= 1568 psi


FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Top soil & clay	0	10	Gas ck @ 2145 No show
Red rock, shale & sand	10	65	Gas ck @ 2487 NO show
Sand, shale & red rock	65	185	Gas ck @ 3508 6/10- $\frac{1}{2}$ " w/water
Red rock, sand & shale	185	285	15,200 cu.ft.
Sand, shale & red rock	285	620	
Sand, shale & sand	620	850	
Red rock, shale & sand	850	1060	
Red rock & shale	1060	1080	Gas ck @ 4627 No show
Dark shale	1080	1430	
Sand & shale	1430	1730	Gas ck @ 5001 No show
Sand & shale	1730	1990	
Shale & sand	1990	2040	Gas ck @ 5309 NO show
Big Lime	2040	2130	
Big Injun GCR	2130	3480	Gas ck @ T.D. 6/10- $\frac{1}{2}$ " w/water
Sand & shale	3480	4000	15,200 cu.ft.
Sand & shale	4000	4584	
Sand & shale	4584	4610	
Riley	4610	4978	
Sand & shale	4978	4980	
Benson	4980	5266	
Sand & shale	5266	5278	
Alexander	5278	5912	
Sand & shale	5912	5922	
Devonian Shale	5922	5992	
Sand & shale	5992		

T.D.

From New Log
Top hole is 2090

Pluviotherm to top
End of log

(Attach separate sheets as necessary)

J&J Enterprises, Inc.
Well Operator
By: 
Robert Dahlin - Geologist
Date: 10/22/85

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 ^{in situ}, encountered in the drilling of a well."



1) Date: August 19, 1985
2) Operator's Well No. JK-1185
3) API Well No. 47-017-3467
State County Permit

AUG 23 1985

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

4) WELL TYPE: A Oil Gas B (if "Gas", Production Elevation: 1134'
5) LOCATION: Watershed: Yeager Run Deep Shallow
District: Central
6) WELL OPERATOR J & J Enterprises CODE: 24150 7) DESIGNATED AGENT Richard Reddecliff
Address P.O. Box 48 P.O. Box 48
Buckhannon, WV 26201
8) OIL & GAS INSPECTOR TO BE NOTIFIED
Name Mike Underwood
Address Rt. 2 Box 114
Salem, WV 26426
9) DRILLING CONTRACTOR:
Name S.W. Jack Drilling Co.
Address P.O. Box 48
Buckhannon, WV 26201

10) PROPOSED WELL WORK: Drill deeper Redrill Stimulate
Plug off old formation Perforate new formation
Other physical change in well (specify) Rhine Street 441
11) GEOLOGICAL TARGET FORMATION, 5995' feet
12) Estimated depth of completed well, 5995' feet
13) Approximate trata depths: Fresh, 115' feet; salt, N/A feet.
14) Approximate coal seam depths: N/A feet; Is coal being mined in the area? Yes No

15) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		PACKERS
	Size	Grade	For drilling	Left in well	
Conductor	11 3/4	H-40	30'	0'	0 Sacks
Fresh water	8 5/8	ERW	1734'	1734'	To Surface
Coal	8 5/8	ERW	1734'	1734'	To Surface
Intermediate					
Production	4 1/2	J-55	5995'	5995'	300 Sacks
Tubing					or as required by rule 15-01
Liners					

Permit number 47-017-3467
OFFICE USE ONLY
DRILLING PERMIT
Date September 11 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 11, 1987 unless work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent: <i>Ar B</i>	Plat: <i>Qnt. Gub</i>	Casing Fee	WRCF	Fee	2061	Other
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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.
Director, Division of Oil and Gas
File

