



FILE NO. 13-10  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1/200  
 PROVEN SOURCE OF ELEVATION TOP OF KNOB  
ELEV. 1150'

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

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 FORM IV-6 (878)



DATE FEB 20, 19 83  
 OPERATOR'S WELL NO. JK-861  
 API WELL NO. 47-017-3309  
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
 (IF "GAS") PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION ELEVATION 1118' WATER SHED A BRANCH OF STRAIGHT FORK  
 DISTRICT SOUTHWEST COUNTY DODDRIDGE  
 QUADRANGLE OXFORD 7.5' Halbrook 15' EC 6  
 SURFACE OWNER COY ADAMS, hrs. ACREAGE 72.54  
 OIL & GAS ROYALTY OWNER W. R. BROWN hrs., et al. LEASE ACREAGE 73  
 LEASE NO. JK-17  
 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 ALEXANDER ESTIMATED DEPTH 5300'  
 WELL OPERATOR J & J ENTERPRISES, INC. DESIGNATED AGENT RICHARD M. REDDECLIFF  
 ADDRESS P. O. BOX 48 ADDRESS P. O. BOX 48  
BUCKHANNON, WV 26201 BUCKHANNON, WV 26201

APR 23 1984

6-6 Straight Fork-Bluestone Creek (133)



Date September 25, 1984  
 Operator's JK-861  
 Well No. JK-861  
 Farm Brown  
 API No. 47 - 017 - 3309

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: 1118 Watershed A Branch of Straight Fork  
 District: Southwest County Doddridge Quadrangle Oxford 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 Coy Adams Hrs C/O Opal Young  
 ADDRESS 102 School St., West Union, WV 26456  
 MINERAL RIGHTS OWNER G.T. Nutter HRS. C/O Alice  
 ADDRESS Nutter, 2702 Davis Court, Cocoa, Fla. 32922  
 OIL AND GAS INSPECTOR FOR THIS WORK Mike Underwood  
 ADDRESS Rt. 2, Box 114 Salem, WV 26426  
 PERMIT ISSUED 4/12/84  
 DRILLING COMMENCED 8/28/84  
 DRILLING COMPLETED 9/5/84  
 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 Cond.			
13-10"	40	0	0 sks
9 5/8			
8 5/8	1828.25	1828.25	375 sks
7			
5 1/2			
4 1/2	5198.75	5198.75	510 sks.
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Alexander Depth 5068-5100 feet  
 Depth of completed well 5356 feet Rotary x / Cable Tools      
 Water strata depth: Fresh 75,230 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 5068-5100 feet  
 Gas: Initial open flow     Mcf/d Oil: Initial open flow     Bbl/d  
 Combined Final open flow 253 Mcf/d Final open flow     Bbl/d  
 Time of open flow between initial and final tests 4 hours  
 Static rock pressure 1450 psig (surface measurement) after 96 hours shut in  
 (If applicable due to multiple completion--)  
 Second producing formation Riley & Balltown <sup>Bradford</sup> Pay zone depth 4717-4798 / 4387-4401 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)

OCT 29 1984

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

Alexander: Perforations: 5068-70 (4 holes) 5084-90(10 holes) 5098-5100(4 holes)  
 Fracturing: 400 sks. 20/40 sand: 525 Bbls. fluid.  
 Riley: Perforations: 4717-20 (8 holes) 4796-98 (4 holes)  
 Fracturing: Foam frac. 150 sks. 20/40 sand: 500 gal. acid: 216 Bbls. fluid.  
 Bradford: Perforations: 4387-88 (4 holes) 4398-4401 (12 holes)  
 Fracturing: Foam frac. 200 sks. 20/40 sand: 500 gal. acid: 130 Bbls. fluid.

BOTTOM HOLE PRESSURE  $P_f = P_{we} \frac{XGLS}{1}$   
 $t=60 = (0.0075 \times 5199) + 459.7 = 559$   $X = 53.35 \times 559 = 29823$   $= 0.000034$   $P_f = 1453 \times 2.72^{(0.000034)(0.743(4744)(0.9))} = 1453 \times 2.72^{0.1} = 1453 \cdot 1.1$

Pf=1598 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
Clay			0	3	
Shale & sandy shale			3	230	1/4" stream @ 75'
Sand, shale & red rock			230	385	
Sand, shale & red rock			385	500	1/2" stream @ 230'
Sand, shale & red rock			500	705	
Red rock & sandy shale			705	1190	Gas ck @ 2038 No show
Sand & shale			1190	1345	
Shale & white sand			1345	1555	Gas ck @ 2319 2/10-1" w/water 10,650 cu.ft.
Shale & white sand			1555	1640	
Sand, shale & white sand			1640	1745	
Sandy shale & gray sand			1745	1830	Gas ck @ 3274 No show
Little lime			1830	1845	
Sand			1845	1883	Gas ck @ 4780 No show
Big Lime & Injun			1883	2015	
Sand & shale			2015	3130	Gas ck @ 4845 No show
Gray & white sand			3130	3275	
Sand & sandy shale			3275	4387	Gas ck @ 5195 No show
Bradford			4387	4401	
Sand & shale			4401	4717	Gas ck @ collars No show
Riley			4717	4798	
Sand & sandy shale			4798	5068	
Alexander			5068	5100	
Sand & shale			5100	5356	

T.D.

(Attach separate sheets as necessary)

J&J Enterprises, Inc.

Well Operator

By:  Robert Dahlin-Geologist

Date: 9/25/84

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  
 and encountered in the drilling of a well."



1) Date: March 14, 19 84  
 2) Operator's Well No. JK-861  
 3) API Well No. 47 - 017 - 3309  
 State County Permit

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

- 4) WELL TYPE: A Oil  / Gas  /  
 B (If "Gas", Production  / Underground storage  / Deep  / Shallow  )  
 5) LOCATION: Elevation: 1118 Watershed: A Branch of Straight Fork  
 District: Southwest County: Doddridge Quadrangle: Oxford 7.5  
 6) WELL OPERATOR J&J Enterprises, Inc. 7) DESIGNATED AGENT Richard 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 Stephen Casey H. Mike Underwood Name S.W. Jack Drilling Co.  
 Address Rt. # 2, Box 232-D Address P.O. Box 48  
Jane Lew, WV 26378 782-1043 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, Alexander  
 12) Estimated depth of completed well, 5000 feet  
 13) Approximate trata depths: Fresh, 650 feet; salt, 0 feet.  
 14) Approximate coal seam depths: None Is coal being mined in the area? Yes

**RECEIVED**  
 MAR 24 1984  
 OIL & GAS DIVISION  
 DEPT. OF MINES

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	113/4	H-40	42	x		30	0	0 sks.	Kinds
Fresh water	85/8	ERW	23	x		1200	1200	To surface	NEAT Sizes
Coal	85/8	ERW	23	x		1200	1200	To surface	
Intermediate Production	4 1/2	J-55	10.5	x		4950	4950	325 sks.	Depths set
Tubing									or as req. by rule 15101 Perforations: Top Bottom
Liners									

OFFICE USE ONLY  
 DRILLING PERMIT

Permit number 47-017-3309 Date April 12, 19 84

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 April 12, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
	<u>LS</u>	<u>MM</u>	<u>MM</u>	<u>1477</u>

T. J. [Signature]  
 Administrator, Office of Oil and Gas

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