

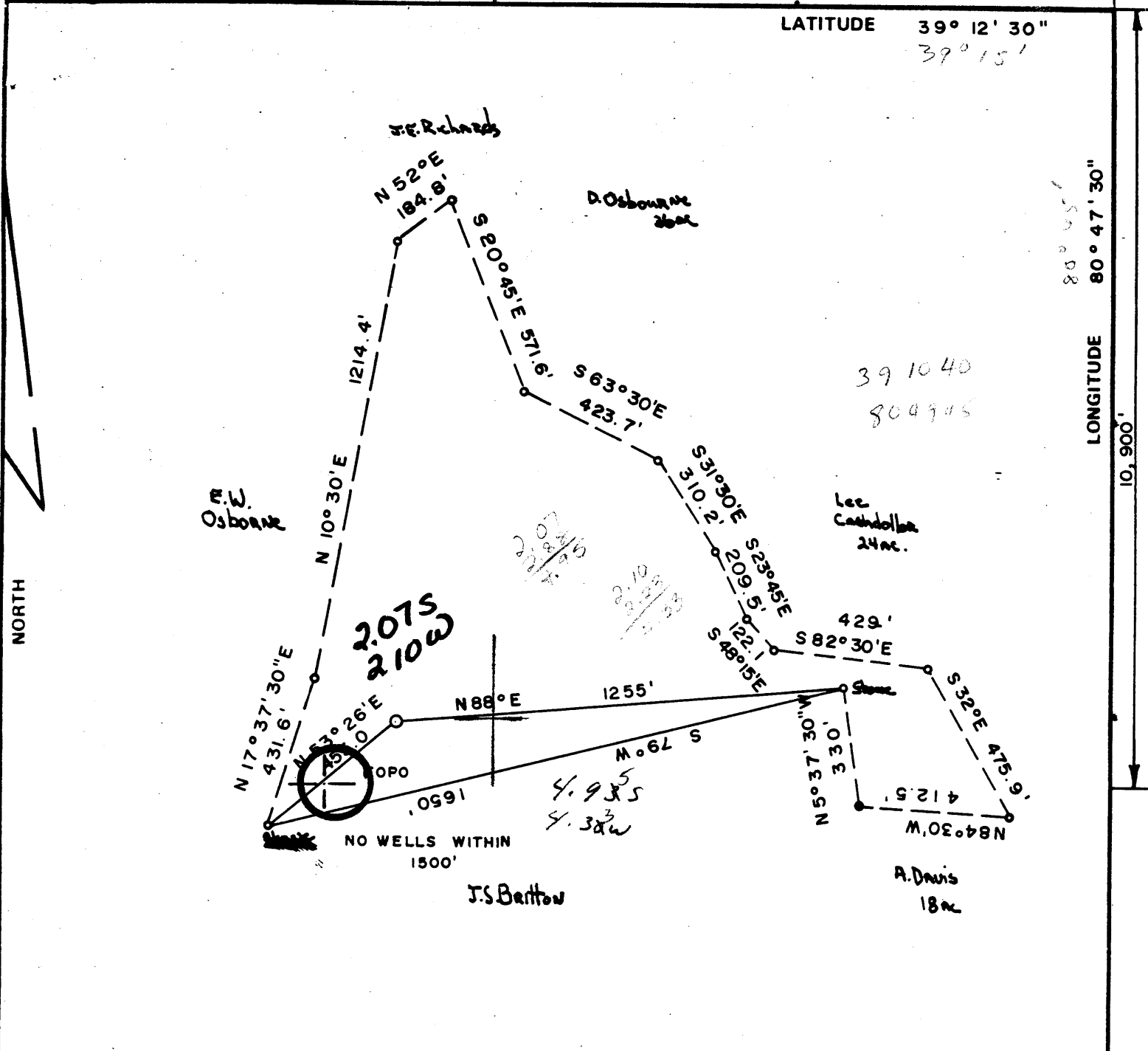
M.A. 2-2-82

Card CSD 44

11,000'

LATITUDE 39° 12' 30"
39° 15'

LONGITUDE 80° 47' 30"
80° 45'



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 400'
 MINIMUM DEGREE OF ACCURACY 1/2500
 PROVEN SOURCE OF ELEVATION EL 900 at Road Inter'n
 2650 SE of Site

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) Robert T. Gale
 R.P.E. _____ L.L.S. _____

PLACE SEAL HERE

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



DATE 1/12, 1982
 OPERATOR'S WELL NO. J-609
 API WELL NO. 47-017-3079
 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 1120 WATER SHED JIMS RUN
 DISTRICT SOUTHWEST COUNTY DODDRIDGE
 QUADRANGLE OXFORD Nolbrook 15' NE
 SURFACE OWNER D. OSBOURNE ACREAGE 30
 OIL & GAS ROYALTY OWNER CHAS. DENNISON LEASE ACREAGE 30
 LEASE NO. M-276
 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 3600
 WELL OPERATOR J & J ENTERPRISES DESIGNATED AGENT Henry Barnett
 ADDRESS BOX 48 ADDRESS Box 48
BUCKHANNON, WV 26201 Buckhannon WV 26201

MAR 11 1982

STRAIGHTER PLUG OFF OK

RECEIVED

Operator's Well No. J-609
API Well No. 47 017 3079
State County Permit

MAY 25 1982

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

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

WELL OPERATOR'S REPORT
OF

DRILLING, FRACTURING AND/OR STIMULATION, OR PHYSICAL CHANGE

WELL TYPE: Oil ___ / Gas X / Liquid Injection ___ / Waste Disposal ___
(If "Gas", Production X / Underground storage ___ / Deep ___ / Shallow X /)

LOCATION: Elevation: 1120 Watershed: Jims Run
District: Southwest County: Doddridge Quadrangle: Oxford

WELL OPERATOR J&J Enterprises, Inc. DESIGNATED AGENT Harry L. Barnett
Address P.O. Box 48 Address P.O. Box 48
Buckhannon, WV 26201 Buckhannon, WV 26201

PERMITTED WORK: Drill X / Convert ___ / Drill deeper ___ / Redrill ___ / Fracture or stimulate X
Plug off old formation ___ / Perforate new formation ___
Other physical change in well (specify) _____

PERMIT ISSUED ON 2/1, 19 82 OIL & GAS INSPECTOR FOR THIS WORK:
(IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED) Name Stephen Casey
Address Rt. # 2, Box 232-D
Jane Lew, WV 26378

GEOLOGICAL TARGET FORMATION: Alexander Depth 5083-5100 feet
Depth of completed well, 5335 feet Rotary X / Cable Tools ___
Water strata depth: Fresh, 534 feet; salt, None feet.
Coal seam depths: None Is coal being mined in the area? None
Work was commenced 4/20, 1982, and completed 4/24, 1982

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 sks.	Winds
Fresh water	8 5/8	ERW	23	X		1235.30	1235.30	270 sks.	
Coal	8 5/8	ERW	23	X		1235.30	1235.30	270 sks.	Sizes
Intermediate									
Production	4 1/2	J-55	10.5	X		5222	5222	250 sks.	Deaths set
Tubing									
Liners									Perforations:
									Top Bottom
									4413 4416
									4940 5135
									5083 5108
									5103 5109
									5125-5135

OPEN FLOW DATA

Producing formation Alexander Pay zone depth 5083-5135 feet
Gas: Initial open flow, ___ Mcf/d Oil: Initial open flow, ___ Bbl/d
Combined Final open flow, 1,205 Mcf/d Final open flow, ___ Bbl/d
Time of open flow between initial and final tests, 2 hours
Static rock pressure, 1350 psig (surface measurement) after 96 hours shut in
[If applicable due to multiple completion--]
Second producing formation Leopold, Benson & Riley Pay zone depth 5083-85 feet
Gas: Initial open flow, ___ Mcf/d Oil: Initial open flow, ___ Bbl/d
Final open flow, ___ Mcf/d 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
Pf=PweXGLS
 $t=60+(0.0075 \times 5222) + 459.7=558$ $X=53.35 \times 558 = 29815$ $=0.000335$ $Pf=1350 \times 2.72^{(0.000335)}$ (0.600)
 $(4757) (0.9) = 1350 \times 2.72^{0.086} = 2.72 \times 1.089$

Pf= 1471 psi

JUN 2 1982

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

Alexander: Perforations: 5083-5100 (5 holes) 5103-09 (6 holes) 5125-35 (6 holes)
Fracturing: 20,000 lbs. 80/100 sand: 50,000 lbs. 20/40 sand: 600 Bbls. fluid.

Leopold & Benson: Perforations: 4940-43 (12 holes)
Fracturing: 5,000 lbs. 80/100 sand: 25,000 lbs. 20/40 sand: 500 gals. Acid
400 Bbls. fluid.

Riley: Perforations: 4413-16 (12 holes)
Fracturing: 5,000 lbs. 80/100 sand: 30,000 lbs. 20/40 sand: 500 gals. Acid:
450 Bbls. fluid.

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			0	50	
Red rock & sand			50	104	
Shale, red rock & sand			104	177	Damp @ 534
Sandy shale & sand			177	215	Show of oil @ 1020
Sandy shale & sand			215	256	
Red rock & sand			256	270	Gas Ck @ 1849 20/10-2" w/water 159,000 cu.ft.
Shale & sand			270	284	
Shale & sandy shale			284	310	
Shale & red rock			310	321	Gas ck @ 2008 30/10-2" w/water 231,000 cu.ft.
Sand, sandy shale & red rock			321	365	
Sand, red rock and shale			365	379	Gas ck @ 2520 17/10-2" w/water
Sandy shale & sand			379	411	173,000 cu.ft.
Sandy shale & red rock			411	515	
Sand & red rock			515	562	Gas ck @ 3032 16/10-2" w/water 169,000 cu.ft.
Sandy shale, red rock & sand			562	620	
Shale, red rock & sand			620	755	Gas ck @ 3604 16/10-2" w/water 169,000 cu.ft.
Sandy shale & sand			755	972	
Sand & sandy shale			972	1060	
Sand & sandy shale			1060	1185	
Sandy shale & sand			1185	1381	Gas ck @ 4116 30/10-2" w/water 231,000 cu.ft.
Sand, shale & sandy shale			1381	1456	
Shale & sandy shale			1456	1525	Gas ck @ 4598 10/10-2" w/water
Sand & shale			1525	1788	133,000 cu.ft.
Sand & little lime			1788	1816	
Shale, lime & sand			1816	1857	Gas ck @ 5110 16/10-2" w/water
Big Lime & Injun			1857	2000	169,000 cu.ft.
Shale & sand			2000	2067	
Sandy shale & sand			2067	2588	Gas ck @ 60 jts. off bottom 8/10-2" w/water
Shale & sandy shale			2588	3035	
Sandy shale & shale			3035	4413	110,000 cu.
Riley			4413	4416	
Sand & sandy shale			4416	4940	
Leopold & Benson			4940	4943	
Sand			4943	5083	
<u>Alexander</u>			5083	5100	
<u>Sandy shale</u>			5100	5350 TD	

(Attach separate sheets to complete as necessary.)

Well Operator: _____
By: Peter Battles
Peter Battles Geologist

J&J Enterprises, Inc.

NOTE: Regulation 2.02(f) 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."

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. J-609
API Well No. 47 - 017 - 3079
State County Permit

WELL TYPE: Oil ___ / Gas x /
(If "Gas", Production x / Underground storage ___ / Deep ___ / Shallow x /)

LOCATION: Elevation: 1120 Watershed: Jim's Run
District: Southwest County: Doddridge Quadrangle: Oxford

WELL OPERATOR J & J Enterprises, inc.
Address P.O. Box 48
Buckhannon, WV 26201

DESIGNATED AGENT Harry L. Barnett
Address P.O. Box 48
Buckhannon, WV 26201

OIL & GAS ROYALTY OWNER Charles Dennison
Address Box 985
Clarksburg, WV 26301

COAL OPERATOR None
Address

ACREAGE 30
SURFACE OWNER Delbert Osbourne
Address Rt. # 1
West Union, WV 26456
Acreage 30

COAL OWNER(S) WITH DECLARATION ON RECORD:
Name Delbert Osbourne
Address Rt. # 1
West Union, WV 26456

FIELD SALE (IF MADE) TO:
Name Unknown
Address

Name
Address

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Stephen Casey
Address Rt. # 2, Box 232-D
Jane Lew, WV 26378

COAL LESSEE WITH DECLARATION ON RECORD:
Name None
Address

RECEIVED

FEB 1 - 1982

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed ___ / lease ___ / other contract x / dated 12/15, 1981, to the undersigned well operator from Clarence W. Mutschelknaus

If said deed, lease, or other contract has been recorded:]
Recorded on 12/21, 1981, in the office of the Clerk of the County Commission of Doddridge County, West Virginia, in Oil & Gas Lease Book 123 at page 48. A permit is requested as follows:

PROPOSED WORK: Drill x / Drill deeper ___ / Redrill ___ / Fracture or stimulate x /
Plug off old formation ___ / Perforate new formation ___ /
Other physical change in well (specify) _____

--planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code § 22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL
GEOLOGICAL LOGS DIRECTLY TO:
WEST VIRGINIA OIL AND GAS
CONSERVATION COMMISSION
615 WASHINGTON STREET EAST
CHARLESTON, WV 25311
TELEPHONE: (304) 348-3092

J & J Enterprises, Inc.
Well Operator
By [Signature]
Peter Battles
Its Geologist

CLARENCE W. MUTSCHELKNAUS

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) S.W. Jack Drilling Company

Address P.O. Box 48
Buckhannon, WV 26201

GEOLOGICAL TARGET FORMATION, Alexander

Estimated depth of completed well, 5600 feet Rotary / Cable tools /

Approximate water strata depths: Fresh, 110 feet; salt, None feet.

Approximate coal seam depths: None Is coal being mined in the area? Yes / No

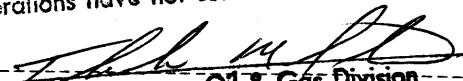
CASING AND TUBING PROGRAM

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 sks.	Kinds
Fresh water	8 ⁵ / ₈	ERW	23	x		1700	1700	to surf.	
Coal	8 ⁵ / ₈	ERW	23	x		1700	1700	to surf.	Sizes
Intermediate									
Production	4 ¹ / ₂	J-55	10.5	x		5550	5550	400 sks.	Depths set
Tubing									
Liners									Perforations:
									Top Bottom

NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code § 22-4-2, (iii) Form IV-3, "Reclamation Plan", applicable to the reclamation required by Code § 22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code § 22-4-12a, and (v) if applicable, the consent required by Code § 22-4-8a from the owner of any water well or drilling within 200 feet of the proposed well.

A separate Form IV-2 is not be required for fracturing or stimulating a well where a permit is sought for such work or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.

All provisions being in accordance with Chapter 22, of the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 10-16-82.


Deputy Director - Oil & Gas Division

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code § 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof:

W A I V E R

The undersigned coal operator / owner / lessee / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: _____, 19____

By _____

Its _____