

11/17/83

Plot Card CSD

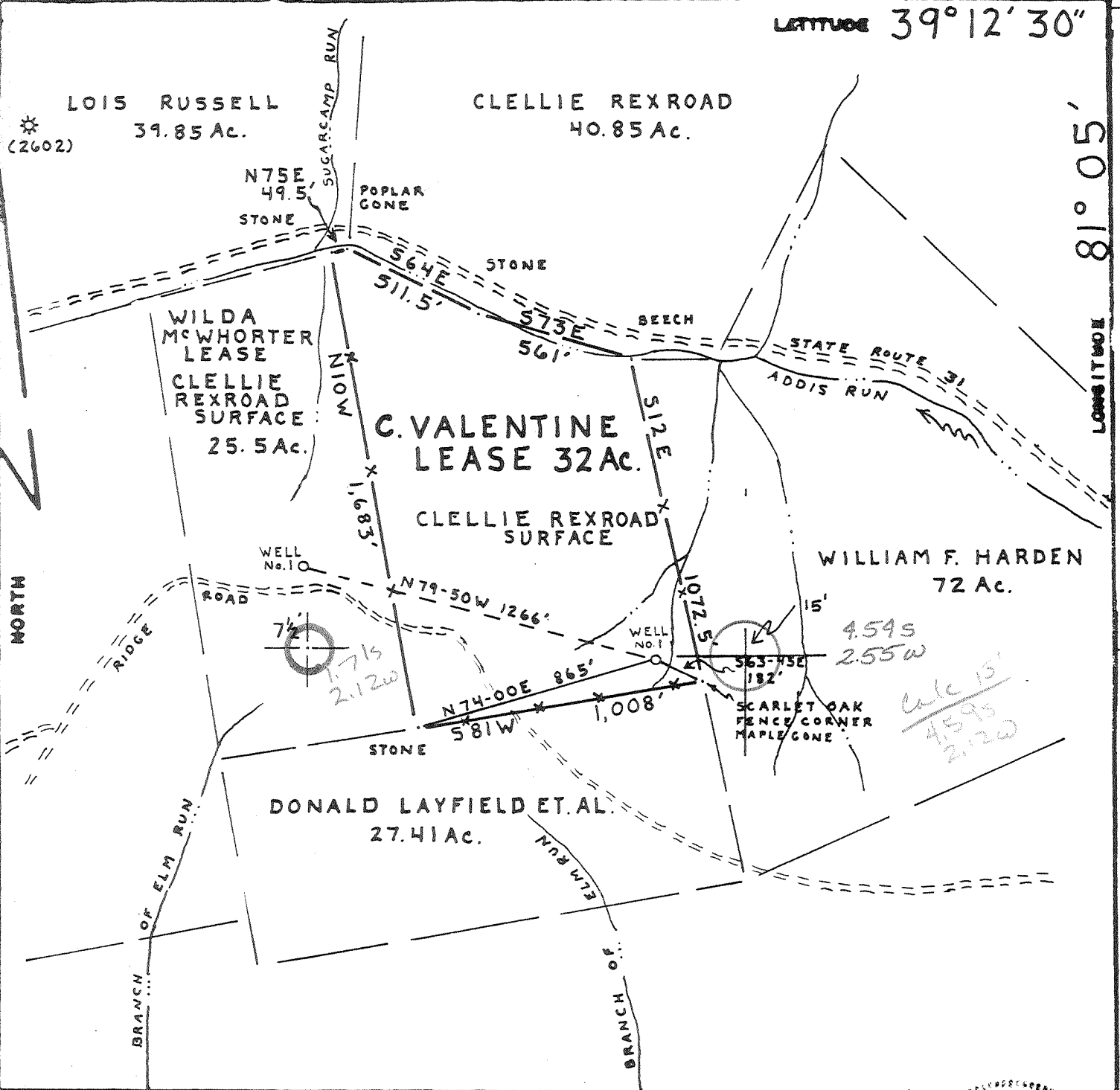
11,200'

15

LATITUDE 39° 12' 30"

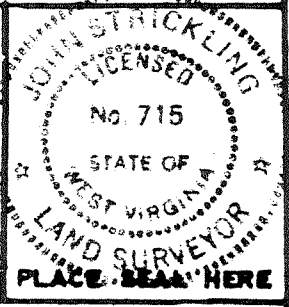
81° 05'

8,930



FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1/200  
 PROVEN SOURCE OF ELEVATION ROAD  
ELEV. 742'

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) John Strickling  
 R.P.E. \_\_\_\_\_ L.L.S. 715



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 FORM IV-6  
 (8-79)



DATE 12 JANUARY, 1983  
 OPERATOR'S WELL NO 721-1  
 API WELL NO. 47-085  
 STATE COUNTY 6189 PERMIT

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL    GAS X LIQUID INJECTION    WASTE DISPOSAL     
 (IF "GAS", PRODUCTION X STORAGE    DEEP    SHALLOW X)  
 LOCATION: ELEVATION 922' WATER SHED ADDIS RUN  
 DISTRICT GRANT COUNTY RITCHIE  
 QUADRANGLE HARRISVILLE, W.VA. 7 1/2' 15" NC  
 SURFACE OWNER CLELLIE REXROAD ACREAGE 32  
 OIL & GAS ROYALTY OWNER C. VALENTINE LEASE NO. 721 LEASE ACREAGE 32  
 PROPOSED WORK: DRILL X 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    JAN 24 1983  
 TARGET FORMATION MARCELLUS SHALE ESTIMATED DEPTH 5700'  
 WELL OPERATOR KEY OIL, INC. DESIGNATED AGENT JOE McLAUGHLIN  
 ADDRESS P.O. BOX 709 ADDRESS P.O. BOX 709  
SPENCER, W. VA. 25276 SPENCER, W. VA. 25276



IV-35  
(Rev 8-81)

RECEIVED

JUL 27 1983

OIL & GAS DIVISION  
DEPT. OF MINES

State of West Virginia  
Department of Mines  
Oil and Gas Division

Date March 25, 1983  
Operator's 721-1  
Well No. 721-1  
Farm Clifton Valentine  
API No. 47 - 085 - 6189

WELL OPERATOR'S REPORT  
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

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

LOCATION: Elevation: 922' Watershed Addis Run  
District: Grant County Ritchie Quadrangle Harrisville 7.5'

COMPANY KEY OIL, INC.  
ADDRESS P.O. Box 709, Spencer, WV  
DESIGNATED AGENT Joe McLaughlin  
ADDRESS P. O. Box 709, Spencer, WV  
SURFACE OWNER Clellie Rexroad  
ADDRESS RFD 1, Cairo, WV  
MINERAL RIGHTS OWNER Clifton Valentine  
ADDRESS 3524 Imperial, Lakeland, FL  
OIL AND GAS INSPECTOR FOR THIS WORK      
S.N. Hersman ADDRESS Box 66, Smithville, WV  
PERMIT ISSUED 1-17-83  
DRILLING COMMENCED 1-23-83  
DRILLING COMPLETED 1-28-83  
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	1081	1081	300 SK
7			
5 1/2			
4 1/2	4532	4532	425 SK
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 5900 feet  
Depth of completed well 4634 feet Rotary X / Cable Tools      
Water strata depth: Fresh 210 feet; Salt 1560 feet  
Coal seam depths: N/A Is coal being mined in the area?    

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth 2945-4485 feet  
Gas: Initial open flow Show Mcf/d Oil: Initial open flow Show Bbl/d  
Final open flow 325 Mcf/d Final open flow 35 Bbl/d  
Time of open flow between initial and final tests 4 hours  
Static rock pressure 375 psig (surface measurement) after 24 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

AUG 01 1983

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

Top Stage *Up Dev.* 2945-3620 29 - 0.39" holes  
 Bottom Stage *Huron* 3972-4485 30 - 0.39" holes  
 1000 gal. MOD 202 Acid, 130 gal. Paracheck, 825 gal. Toluene, 770 gal. Kerosene,  
 1.796 mm scf N<sub>2</sub>

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Siltstone/Shale			1100	1340	
Sand			1340	1488	
Shale			1488	1648	
Lime			1648	1668	
Shale			1668	1713	
Sand			1713	1940	
Shale			1940	1973	
Sand			1973	2013	
Shale			2013	2113	
Siltstone			2113	2188	
Shale			2188	2343	
Siltstone/Shale			2343	2750	
Sand			2750	2762	
Shale			2762	3608	
Shale/Siltstone			3608	3768	
Siltstone			3768	3773	
Shale/Siltstone			3773	4526	
				4634	T.D. Huron@T.D.

(Attach separate sheets as necessary)

KEY OIL, INC.

Well Operator

By: *Barry K. Lay* Barry K. Lay  
 Date: March 25, 1983

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



1) Date: January 14, 1983  
 2) Operator's Well No. 721-1  
 3) API Well No. 47 State West Virginia County Putnam Permit 1983-0001

DRILLING CONTRACTOR:  
 \_\_\_\_\_  
 \_\_\_\_\_

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

OIL AND GAS WELL PERMIT APPLICATION

- 4) WELL TYPE: A Oil \_\_\_\_\_ / Gas \_\_\_\_\_ /  
 B (If "Gas", Production \_\_\_\_\_ / Underground storage \_\_\_\_\_ / Deep \_\_\_\_\_ / Shallow \_\_\_\_\_ /)
- 5) LOCATION: Elevation: 252 Watershed: Putnam  
 District: Putnam County: Putnam Quadrangle: Putnam
- 6) WELL OPERATOR Putnam Oil, Inc. 11) DESIGNATED AGENT Putnam Oil, Inc.  
 Address P.O. Box 700 Address Putnam, W.V. 25276  
Putnam W.V. 25276
- 7) OIL & GAS ROYALTY OWNER Clifton Valentine 12) COAL OPERATOR None  
 Address 1324 Imperial Lane Address \_\_\_\_\_  
Orlando, Florida, 32801
- 8) SURFACE OWNER Charlie Perrowe 13) COAL OWNER(S) WITH DECLARATION ON RECORD:  
 Address \_\_\_\_\_ Name \_\_\_\_\_  
 Address \_\_\_\_\_ Address \_\_\_\_\_  
 Acreage 32 Ac. Name \_\_\_\_\_
- 9) FIELD SALE (IF MADE) TO: Address \_\_\_\_\_
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED 14) COAL LESSEE WITH DECLARATION ON RECORD:  
 Name Samuel Perrowe Name \_\_\_\_\_  
 Address P.O. Box 86 Address \_\_\_\_\_  
Putnam, W.V. 25276
- 15) PROPOSED WORK: Drill \_\_\_\_\_ / Drill deeper \_\_\_\_\_ / Redrill \_\_\_\_\_ / Fracture or stimulate \_\_\_\_\_ /  
 Plug off old formation \_\_\_\_\_ / Perforate new formation \_\_\_\_\_ /  
 Other physical change in well (specify) \_\_\_\_\_
- 16) GEOLOGICAL TARGET FORMATION, \_\_\_\_\_
- 17) Estimated depth of completed well, \_\_\_\_\_ feet
- 18) Approximate water strata depths: Fresh, \_\_\_\_\_ feet; salt, 976 feet.
- 19) Approximate coal seam depths: \_\_\_\_\_ Is coal being mined in the area? Yes \_\_\_\_\_ / No \_\_\_\_\_ /

20) 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										Kinds
Fresh water										Sizes
Coal										Depths set
Intermediate										Perforations:
Production										Top Bottom
Tubing										
Liners										

21) EXTRACTION RIGHTS

- Check and provide one of the following:  
 Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil or gas.  
 The requirement of Code 22-4-1-(c) (1) through (4). (See reverse side for specifics.)

22) ROYALTY PROVISIONS

Is the right to extract, produce or market the oil or gas based upon a lease or other continuing contract or contracts providing for flat well royalty or any similar provision for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes  No

If the answer above is No, nothing additional is needed. If the answer is Yes, you may use Affidavit Form IV-60.

23) Required Copies (See reverse side.)

24) 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.

Notary: \_\_\_\_\_  
 My Commission Expires \_\_\_\_\_

Signed: \_\_\_\_\_  
 Its: \_\_\_\_\_

OFFICE USE ONLY  
 DRILLING PERMIT

Permit number \_\_\_\_\_ Date \_\_\_\_\_

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. 10) 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.)

Permit expires September 17, 1983 unless drilling is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
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Administrator, Office of Oil and Gas

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