

FORUM G LONG. 80°48'57.7" LAT. 39°15'10.8"

**RULEY LEASE**  
**53.5 ACRES ±**  
**RULEY NO. 1**

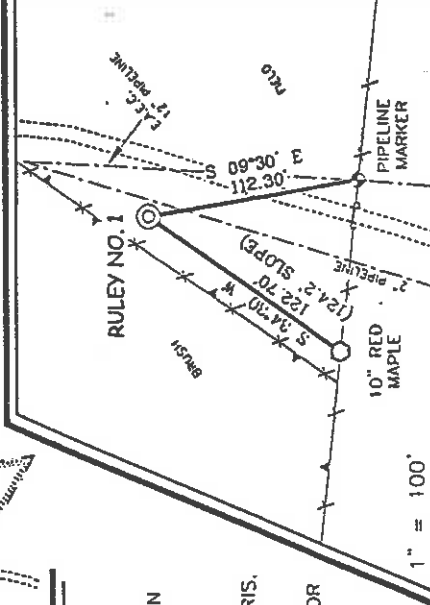
KEY OIL COMPANY 88.75 AC± (SURFACE)  
 KEY OIL COMPANY 27 AC± (SURFACE)  
 KEY OIL COMPANY 70.8 AC± (SURFACE)  
 KEY OIL COMPANY 64 AC± (SURFACE)  
 KEY OIL COMPANY 2.04 AC± (SURFACE)  
 ELWIN LEGGETT 60 AC± (SURFACE)  
 ELWIN LEGGETT 51.5 AC± (SURFACE)  
 40" BLACK OAK  
 5/8" REBAR (FOUND)  
 53.5 ACRES LEASE TRACT\*\*\*\*

CLARK OF RIVER  
 WEST UNION  
 PIPELINE

2636 2353 4567 4181 4169 2511 2353 4488 2540

11.620' 39°17'30" 80°47'30"

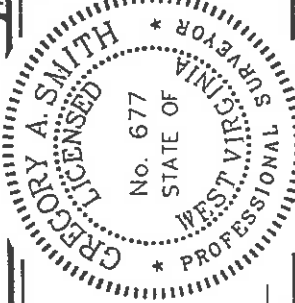
**REFERENCES**



**NOTES ON SURVEY**

1. TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WV NORTH ZONE NAD '27. MAGNETIC NORTH 04/23/01.
2. TIES TO REFERENCES ARE BASED ON LEASE BOUNDARY SHOWN HEREON TAKEN FROM A TITLE OPINION DATED 04/09/01 AS PREPARED BY GARY MORRIS, LAWYER.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM A TITLE OPINION DATED 04/09/01 AS PREPARED BY GARY MORRIS, LAWYER.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF DODDRIDGE COUNTY IN APRIL, 2001.
5. WELL LAT./LONG. ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

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.



P.S. 677 *Gregory A. Smith*

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
 DATE APRIL 23, 20 01  
 OPERATORS WELL NO. RULEY NO. 1  
 API WELL NO. 47-017-04588  
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DIVISION OF ENVIRONMENTAL PROTECTION  
 OFFICE OF OIL AND GAS

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 4731P1 (104)  
 PROVEN SOURCE OF ELEVATION BENCH MARK ELEVATION 878'  
 SCALE 1"=500'

WELL TYPE : OIL  GAS  INJECTION  WASTE LIQUID  DISPOSAL  "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION : ELEVATION 1124' WATERSHED MIDDLE RUN OF ARNOLD CREEK  
 DISTRICT CENTRAL COUNTY DODDRIDGE QUADRANGLE WEST UNION 7.5'  
 SURFACE OWNER ELWIN AND NONA LEGGETT ACREAGE 51.5±  
 ROYALTY OWNER ANNA E. RULEY LEASE ACREAGE 53.5± LEASE NO. \_\_\_\_\_

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 ALEXANDER  
 ESTIMATED DEPTH 5600'

WELL OPERATOR KEY OIL COMPANY DESIGNATED AGENT JAN CHAPMAN  
 ADDRESS 22 GARTON PLAZA WESTON, WV 26452  
 ADDRESS 22 GARTON PLAZA WESTON, WV 26452

6-6 133

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State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas

Reviewed ARJ

Well Operator's Report of Well Work

Farm name: Ruley Operator Well No.: 1

LOCATION: Elevation: 1124 Quadrangle: West Union 7.5'

District: Central County: Doddridge  
Latitude: 14,100 Feet South of 39 Deg. 17 Min. 30 Sec.  
Longitude 11,620 Feet West of 30 Deg. 47 Min. 30 Sec.

Company: Key Oil Company

Address: <u>22 Garton Plaza</u>	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
<u>Weston, WV 26452</u>	<u>11-3/4</u>	<u>133</u>	<u>133</u>	<u>77</u>
Agent: <u>Jan Chapman</u>	<u>8-5/8</u>	<u>1754</u>	<u>1754</u>	<u>546</u>
Inspector: <u>Mike Underwood</u>	<u>4-1/2</u>		<u>5424</u>	<u>503</u>
Date Permit Issued:				
Date Well Work Commenced: <u>07-15-01</u>				
Date Well Work Completed: <u>07-19-01</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary xxx Cable <u>Rig</u>				
Total Depth (feet): <u>5551' RTD</u>				
Fresh Water Depth (ft.): <u>108' &amp; 313'</u>				
Salt Water Depth (ft.): <u>None</u>				
Is coal being mined in area (N/Y)? <u>No</u>				
Coal Depths (ft.):				

RECEIVED  
Office of Oil & Gas  
Permitting  
SEP 14 2001  
WV Department of  
Environmental Protection

OPEN FLOW DATA

Alexander Benson  
3rd Riley

Producing formation Balltown Pay zone depth (ft) 4853'-4856'

Gas: Initial open flow Show MCF/d Oil: Initial open flow 0 Bbl/d

Final open flow 1579 MCF/d Final open flow Show Bbl/d

Time of open flow between initial and final tests 104 Hours

Static rock Pressure 1800 psig (surface pressure) after 96 Hours

Riley 4620'-4659'

Second producing formation Balltown Pay zone depth (ft) 3925'-4157'

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 pressure) after \* Hours

\*All Formations Co-mingled.

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: Key Oil Company

[Signature]  
Date: 9-11-01

TREATMENT:

Stage #1 Alexander (5343'-82') 16 Holes: 500 GA, 60,000# 20/40 Sand; 550,000 SCF N<sub>2</sub> & 818 Bbls. 60 Quality Foam

Stage #2 Benson & 3rd Riley (5050'-52' & 4854'-55') 12 Holes: 750 GA, 40,000# 20/40 Sand; 417,000 SCF N<sub>2</sub> & 623 Bbls. 60 Quality Foam

Stage #3 Riley (4621'-57') 13 Holes: 750 GA, 5,000# 80/100 Sand; 35,000# 20/40 Sand; 448,000 SCF N<sub>2</sub> & 654 Bbls. 60 Quality Foam

Stage #4 Balltown (3927'-4156') 16 Holes: 1,000 GA, 5,000# 80/100 Sand; 45,000# 20/40 Sand; 502,000 SCF N<sub>2</sub> & 689 Bbls. 60 Quality Foam

FORMATIONS:

Fill	0	-	15	
Clay	15	-	17	
Sh & RR	17	-	40	
Sd	40	-	48	
Sh & RR	48	-	80	
Sd	80	-	98	
Sd & Sh	98	-	138	Water @ 108'
Sd & Sh	138	-	193	
Sh & RR	193	-	206	
Sd	206	-	209	
RR & Sh	209	-	220	
Sd	220	-	223	
Rd & Sd	223	-	334	Water @ 313' - 1-1/3"
Sd	334	-	337	
Sd & Sh	337	-	472	
RR & Sh	472	-	495	
Sd & Sh	495	-	567	
Sd	567	-	578	
Sd & Sh	578	-	646	
Sd	646	-	680	
Sd & Sh	680	-	801	
Sd	801	-	900	
RR & Sh	900	-	956	
Sd & Sh	956	-	1275	
Sd & Sh	1275	-	1366	
Sd	1366	-	1400	
Sd & Sh	1400	-	1410	
Sd	1410	-	1519	
Sd & Sh	1519	-	1850	
Sh	1850	-	2020	
L. Lime	2020	-	2076	
Big Lime	2076	-	2192	Gas Tests: 2000 - No Show
Injun	2192	-	2231	3417 - Oil Odor
Sd & Sh	2231	-	3465	4002 - Odor
Warren	3465	-	3490	4627 - Odor
Sd & Sh	3490	-	4010	5026 - Odor
Balltown	4010	-	4040	5305 - Odor
Sd & Sh	4040	-	4618	
Riley	4618	-	4660	
Sd & Sh	4660	-	5063	
Benson	5063	-	5073	
Sd & Sh	5073	-	5370	
Alexander	5370	-	5420	
Sd & Sh	5420	-	5551	RTD