

LONG. 80°52'14.5" LATITUDE 39°17'30" LONGITUDE 80°50'00" LAT. 39°17'02.2" 2.790

CARDER LEASE 96 ACRES ±

JACK & SHIRLEY
HOLT
74.2 AC.±
(SURFACE)

DELRAY P. &
FRANCES CURTIS
47.3 AC.±
(SURFACE)

DELRAY P. &
FRANCES CURTIS
47.3 AC.±
(SURFACE)

JAMES A.
DOAK ET AL
18.74 AC.±
(SURFACE)

FRANK &
DAVID MCGILL
(SURFACE)

ROBERT W.
DOAK
70.68 AC.±
(SURFACE)

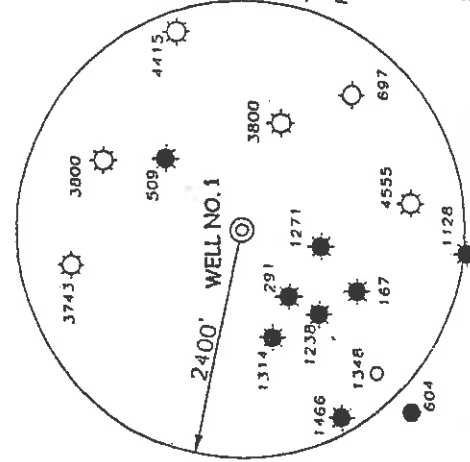
DELBERT D.
NICHOLS ET UX
15.5 AC.±
(SURFACE)

DELRAY P. &
FRANCES CURTIS
47.3 AC.±
(SURFACE)

WELL NO. 1

ANNA B.
BARKER ET AL
25 AC.±
(SURFACE)

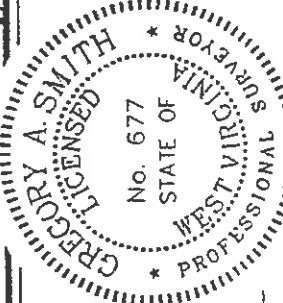
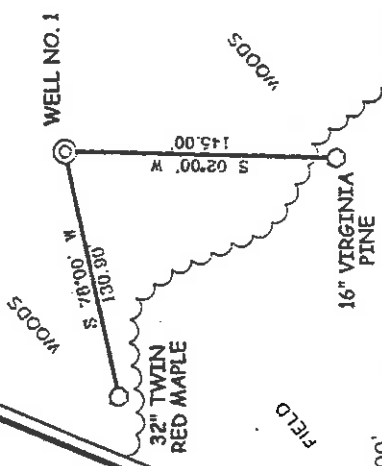
JERRY A.
NORMAN
31 AC.±
(SURFACE)



NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WV NORTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 11/29/01.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM A TITLE REPORT PREPARED BY GARY MORRIS, LAWYER.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF DODDRIDGE COUNTY IN JULY, 2001.
5. WELL LAT./LONG. ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

REFERENCES



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 ENVIRONMENTAL PROTECTION.

P.S. 677
Gregory A. Smith

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 4907P1 (114-30) SCALE 1" = 500'
PROVEN SOURCE JUNCTION OF ROADS ELEVATION 875'

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



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

LOCATION : ELEVATION 1022' WATERSHED TRIBUTARY OF LONG RUN QUADRANGLE WEST UNION 7.5'
DISTRICT CENTRAL COUNTY DODDRIDGE ACREAGE 18.74
SURFACE OWNER JAMES A. DOAK ET UX LEASE ACREAGE 96
ROYALTY OWNER ORA E. AND ROWENA DOAK ET AL LEASE NO. _____
PROPOSED WORK

DRILL CONVERT DRILL DEEPER 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 114-2001 ADDRESS 22 GARTON PLAZA WESTON, WV 26452

6-6-89

0000 4657

COUNTY NAME PERMIT

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

AP

Well Operators Report of Well Work

Farm name: Key Oil Company Operator Well #: Carder #1
Location: Elevation: 1022' Quadrangle: West Union 7.5'

District: Central County Doddridge
Latitude 10,570 feet south of 39 Deg. 17 Min. 30 Sec.
Longitude 2,790 feet west of 80 Deg. 50 Min. 00 Sec.

Company: Key Oil Company
22 Garton Plaza
Weston, WV 26452

Agent: Jan Chapman Casing Used in Left in Cement
Drilling Well Fill up

Inspector: Mike Underwood
Permit Issued: 12-12-01 11-3/4 130 130 55sks
Well Work Commenced: 12-22-01 8-5/8 1914 1914 400 sks
Well Work Completed: 12-30-01 4-1/2 5263 280 sks
Verbal Plugging
Permission granted on:

Rotary Cable Rig

Total Depth (ft) 5357

Fresh water depth (ft) 179'

Salt water depth (ft) N/A

Is coal being mined in are (Y/N) N

Coal depths (ft)

OPEN FLOW DATA

Producing formation: Alexander Pay zone depths (ft) 5145-5166
Gas: Initial open flow mcf/d Initial open flow bbls/day
Final open flow 1500 mcf/d Final open flow bbls/day
Time of open flow between initial and final tests 48 Hours
Static rock pressure 1900 psig (surface pressure) after 48 Hours

Other producing formation: Balltown/Riley/Benson Pay zone depths (ft) 4252-4864
Gas: Initial open flow * mcf/day Oil Initial open flow bbls/day
Final open flow * mcf/day Final open flow bbls/day
Time of open flow between initial and final tests 48 Hours
Static rock pressure * psig (surface pressure) after 48 Hours
*=-commingled zones

RECEIVED
Office of Oil & Gas
Permitting
MAR 14 2002
WV Department of
Environmental Protection

For: Key Oil Company
By: *[Signature]*
Date: 02-24-02

MAR 22 2002

D000 4657

API # 47-017-04657
Carder #1

Stage #1 Alexander	perts 5145-5167	sand 600 sks	60 quality foam
Stage #2 3 rd Riley/Benson	4785-4865	400 sks	60 quality foam
Stage #3 L. Balltown/Riley	4252-4492	500 sks	60 quality foam

Drillers Log

KB/GL	0-10		Electric Log Tops
Clay	10-14		
Sh/RR	14-25		
Sd/Sh	25-85		
Sh/RR	85-162		
Sand	162-167		
Sd/sh	167-290		
Sh/RR	290-433		
RR	433-453		
Sd	453-463		
Sd/Sh	463-480		
RR	480-494		
Sd/Sh	494-525		
RR	525-556		
Sd/Sh	556-660		
Sd	660-680		
RR/Sh	680-992		
RR	992-1054		
Sd/Sh	1054-1114		
Sd	1114-1140		
Sd/Sh	1140-1460		
Sd/	1460-1496		
Sd/Sh	1496-1580		
SdSh	1580-1803		
Sand	1803-1872		
L. Lime	1872-1903		
B. Lime	1903-2032		
Injun	2032-2064		
Sd/Sh	2064-3326		
Warren	3326-3370		
Sd/Sh	3370-3810		
Balltown	3810-3530		
Sd/Sh	3530-4495		
Riley	4495-4528		
Sd/Sh	4528-4885		
Benson	4885-4890		
Sd/Sh	4890-5160		
Alexander	5160-5200		
Sd/Sh	5200-5357		

water @ 179'

gas check @ 1825' strong oil odor

gas check @ 2269' no show

gas check @ 3347' no show

gas check @ 3818' no show

gas check @ 4527' no show

gas check @ 4989' no show

gas check @ 5184' odor