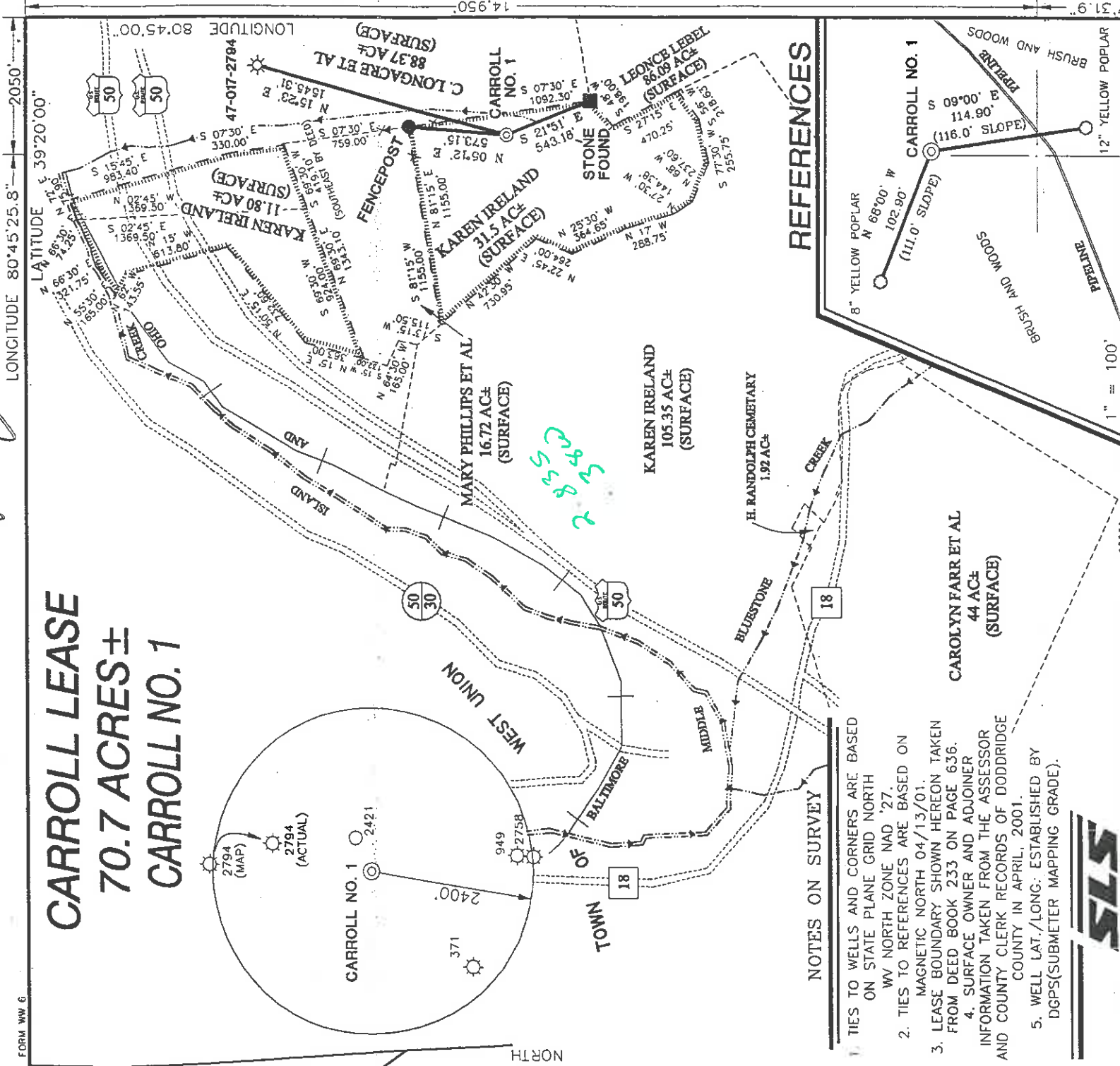
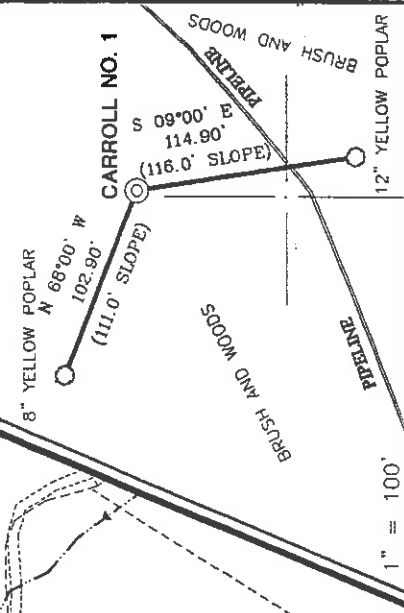


CARROLL LEASE 70.7 ACRES ± CARROLL NO. 1

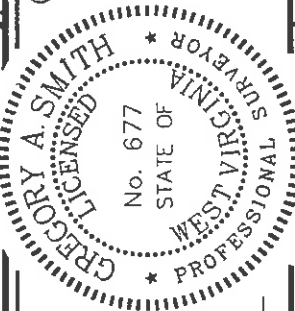


REFERENCES



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 04/13/01.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 233 ON PAGE 636.
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 MAY 2, 20 01
OPERATORS WELL NO. CARROLL NO. 1
API WELL NO. 47-017
STATE COUNTY PERMIT NO. 04604

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 4702P1(104-22)
PROVEN SOURCE OF ELEVATION SCALE 1"=800'
TOP OF KNOB ELEVATION 1210'



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

WELL TYPE : OIL ___ GAS INJECTION ___ WASTE LIQUID ___ PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___
LOCATION : ELEVATION 989' WATERSHED TRIBUTARY OF MIDDLE ISLAND CREEK

DISTRICT WEST UNION COUNTY DODDRIDGE QUADRANGLE WEST UNION 7.5'
SURFACE OWNER KAREN IRELAND ACREAGE 31.5 OF 70.7 ±
ROYALTY OWNER R.S. MAXWELL et al LEASE ACREAGE 70.7 ±
LEASE NO. _____

PROPOSED WORK :
DRILL ___ X ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ X ___ 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 1 DESIGNATED AGENT JAN CHAPMAN
ADDRESS 22 GARTON PLAZA WESTON, WV 26452
6-6 99

DODD 4604

JUN 15 2001

COUNTY NAME PERMIT

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

AP

Well Operator's Report of Well Work

Farm name: CARROLL Operator Well No.: 1

LOCATION: Elevation: 989 Quadrangle: WEST UNION 7.5'

District: WEST UNION County: DODDRIDGE
Latitude: 14950 Feet South of 39 Deg. 20 Min. 00 Sec.
Longitude: 2050 Feet West of 80 Deg. 45 Min. 00 Sec.

Company: KEY OIL CO.

<u>22 GARTON PLAZA</u>			
Address: <u>WESTON, WV</u>	Casing & Tubing <u>8 5/8"</u>	Used in drilling <u>1002'</u>	Left in well <u>1002'</u>
Agent: <u>JAN CHAPMAN</u>	<u>4 1/2"</u>		<u>5239'</u>
Inspector: <u>MIKE UNDERWOOD</u>			<u>606</u>
Date Permit Issued:			
Date Well Work Commenced: <u>08-17-01</u>			
Date Well Work Completed: <u>08-21-01</u>			
Verbal Plugging:			
Date Permission granted on:			
Rotary X Cable Rtg			
Total Depth (feet): <u>5294</u> RTD			
Fresh Water Depth (ft.): <u>683'</u>			
Salt Water Depth (ft.): <u>NONE</u>			
Is coal being mined in area (N/Y)? <u>NO</u>			
Coal Depths (ft.):			

OPEN FLOW DATA

ALEXANDER
BENSON

5096 - 5176
4839 - 4842

Producing formation 3rd RILEY Pay zone depth (ft) 4756 - 4764

Gas: Initial open flow 156 MCF/d Oil: Initial open flow 0 Bbl/d

Final open flow 1540 MCF/d Final open flow SHOW Bbl/d

Time of open flow between initial and final tests _____ Hours

Static rock Pressure _____ psig (surface pressure) after _____ Hours

Second producing formation RILEY Pay zone depth (ft) 4375 - 5176

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 CO.
By: [Signature]
Date: 12-27-01

FEB 01 2002

0000 4604

TREATMENT:

STAGE #1: ALEXANDER (5107 - 5167) 16 HOLES: 500 GA, 60,000# 20/40 SAND, 550,000 SCF N₂ & 814 BBLs 60 QUALITY FOAM.

STAGE #2: BENSON & 3rd RILEY (4840 - 4842 & 4760 - 4762) 13 HOLES: 750 GA, 35,000# 20/40 SAND, 390,000 SCF N₂ & 572 BBLs 60 QUALITY FOAM.

STAGE #3: RILEY (4379 - 4410) 14 HOLES: 1000 GA, 5,000# 80/100 & 25,000# 20/40 SAND, 380,000 SCF N₂ & 555 BBLs 60 QUALITY FOAM.

STAGE #4: SPEECHLEY & WARREN (3316 - 3317 & 3199 - 3273) 13 HOLES: 750 GA, 5000# 80/100 & 45,000# 20/40 SAND, 502,000 SCF N₂ & 689 BBLs 60 QUALITY FOAM.

FORMATIONS:

FILL	0 -	16
SH & RR	16 -	40
SD	40 -	55
SD & SH	55 -	100
RR	100 -	120
SD & SH	120 -	230
SD	230 -	260
RR	260 -	271
SD	271 -	379
SD & SH	379 -	660
SD	660 -	690
SD & SH	690 -	1028
SD	1028 -	1056
SD & SH	1056 -	1714
L. LIME	1714 -	1746
SH	1746 -	1751
BIG LIME	1751 -	1929
INJUN	1929 -	1990
SD & SH	1990 -	3185
WARREN	3185 -	3240
SD & SH	3240 -	4370
RILEY	4370 -	4405
SD & SH	4405 -	4833
BENSON	4833 -	4842
SD & SH	4842 -	5090
ALEXANDER	5090 -	5145
SD & SH	5145 -	5294

WATER 683' - 1/2"

GAS TESTS:

1050'	-	OTL	ODOR
1704'	-	GAS	SHOW
1714'	-	OTL	ODOR
1950'	-	198	MCF
2013'	-	198	MCF
3096'	-	179	MCF
3720'	-	133	MCF
4311'	-	156	MCF
4837'	-	156	MCF
5050'	-	156	MCF