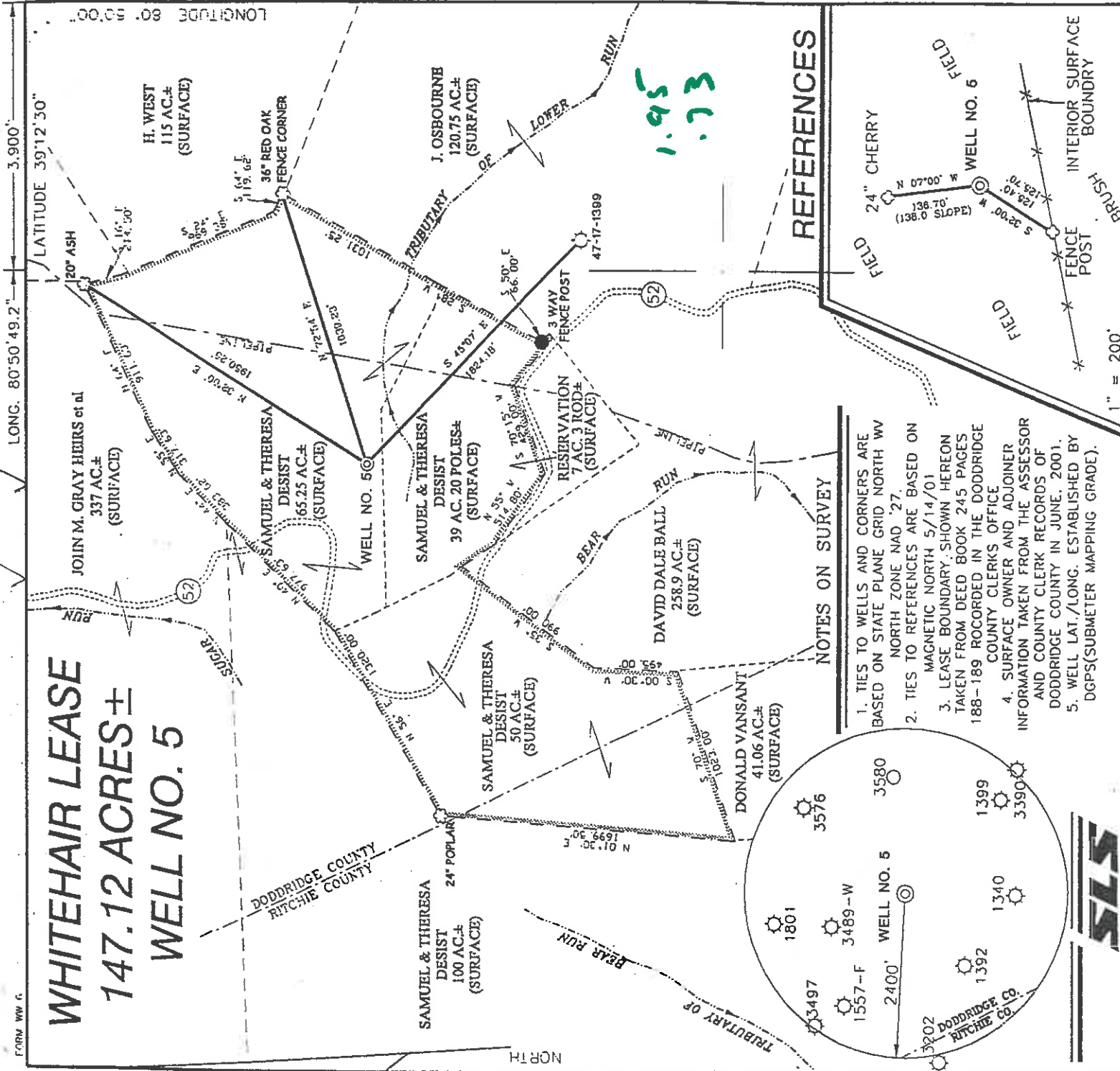


WHITEHAIR LEASE 147.12 ACRES ± WELL NO. 5

LONG. 80°50'49.2" LATITUDE 39°12'30"
LONGITUDE 80°50'00" LAT. 39°10'47.9"



1.95
.73

REFERENCES

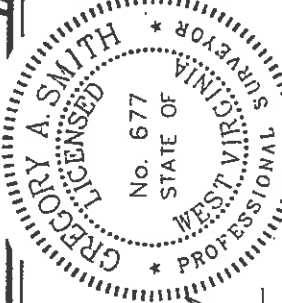
NOTES ON SURVEY

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 5/14/01
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 245 PAGES 188-189 RECORDED IN THE DODDRIDGE COUNTY CLERKS OFFICE
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF DODDRIDGE COUNTY IN JUNE, 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 ENVIRONMENTAL PROTECTION.

P.S. 677 *Gregory A. Smith*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE JUNE 14 20 01
OPERATORS WELL NO. WHITEHAIR NO.5
API WELL NO. 47-17-17-04618
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 4352P5(104-29)
PROVEN SOURCE OF ELEVATION SCALE 1" = 800'
TOP OF KNOB ELEVATION 1214'

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

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

LOCATION : ELEVATION 1045' WATERSHED TRIBUTARY OF LOWER RUN

DISTRICT SOUTHWEST COUNTY DODDRIDGE QUADRANGLE OXFORD 7.5'
SURFACE OWNER SAMUEL AND THERESA F. DESIST ACREAGE 65.25 OF 147.12
ROYALTY OWNER PAULINE WHITEHAIR ET. AL. LEASE ACREAGE 147.12
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 CARTON PLAZA WESTON, WV 26452

COUNTY NAME Dood PERMIT 4618

6-6-133

JUN 20 2001

12-1-01
API# 47-17-04618

Ar 7

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

Well Operators Report of Well Work

Farm name: Samuel Desist, et ux Operator Well #: Whitehair #5

Location: Elevation: 1045' Quadrangle: Oxford 7.5'

District: Southwest County: Doddridge

Latitude 10,330 feet south of 39 Deg. 12 Min. 30 Sec.
Longitude 3900 feet west of 80 Deg. 50 Min. 49 Sec.

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

Agent: Jan Chapman

Used in Drilling Left in Well Cement Fill up

Inspector: Mike Underwood
Permit Issued: 6-14-01
Well Work Commenced: 9-14-01
Well Work Completed: 9-18-01
Verbal Plugging

Permission granted on:

Rotary Cable Rig

Total Depth (ft) 5266'

Fresh water depth (ft) 199'

Salt water depth (ft) N/A

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

Coal depths (ft) N/A

OPEN FLOW DATA

Producing formation Alexander/Elk Pay zone depths (ft) 4892-5077
Gas: Initial open flow 119 mcf/d Oil: Initial open flow bbls/day
Final open flow 1540 mcf/d Final open flow bbls/day
Time of open flow between initial and final tests Hours
Static rock pressure 2050# psig (surface pressure) after Hours

Other producing formation Riley/Benson Pay zone depths (ft) 3210-4769
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

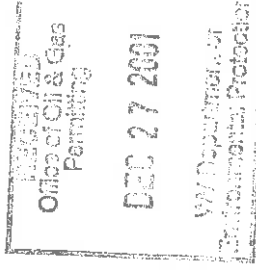
For: Key Oil Company

By: 

Date: 12-1-01

FEB 01 2002

DODD 4618



API # 47-017-04618

Stage #1 Alexander	perts 4892-5077	sand 600 sks	60 quality foam
Stage #2 Benson/ 3 rd Riley	4383-4769	350 sks	60 quality foam
Stage #3 Riley	4360-4388	300 sks	60 quality foam
Stage #4 Upper Balltown/ Spechly Warren	320-3668	500 sks	60 quality foam

Drillers Log

Electric Log Tops

KB/GL	0-10		
Clay	10-15		
Sh/Sd	15-40		
Sd/Sh	40-90	water @ 56'	
Sh/RR	90-264		
Sand	264-268		
Sd/Sh	268-375		
Sd/Sh	375-378		
Sd/Sh	378-438		
Sh/RR	438-690		
Sand/Sh	690-783		
Sand/Sh	783-1786	oil odor @ 1005	
Little Lime	1786-1815		
Big Lime	1815-1943	gas check @ 1822 - no show	oil odor @ 1899
Big Injun	1943-1990	gas check @ 1913 - 146	mcf/d
Sd/Sh	1990-3215	gas check @ 2071 - 119	mcf/d
Warren	3215-3325	gas check @ 3224 - 119	mcf/d
Sh/Sd	3325-3600		
Balltown	3600-3710	gas check @ 3628 - 119	mcf/d
Sd/Sh	3170-4350		
Riley	4350-4385		
Sd/Sh	4385-4760	gas check 4407 - 119	mcf/d
Big Injun	4760-4765	gas check @ 4712 - 119	mcf/d
Sd/Sh	4765-5020		
Alexander	5020-5070	gas check @ 5022 - 119	mcf/d
Sd/Sh	5070-5266		
TD	5266		

Benson