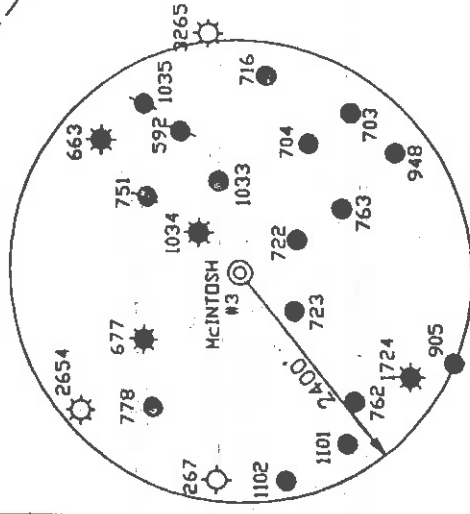
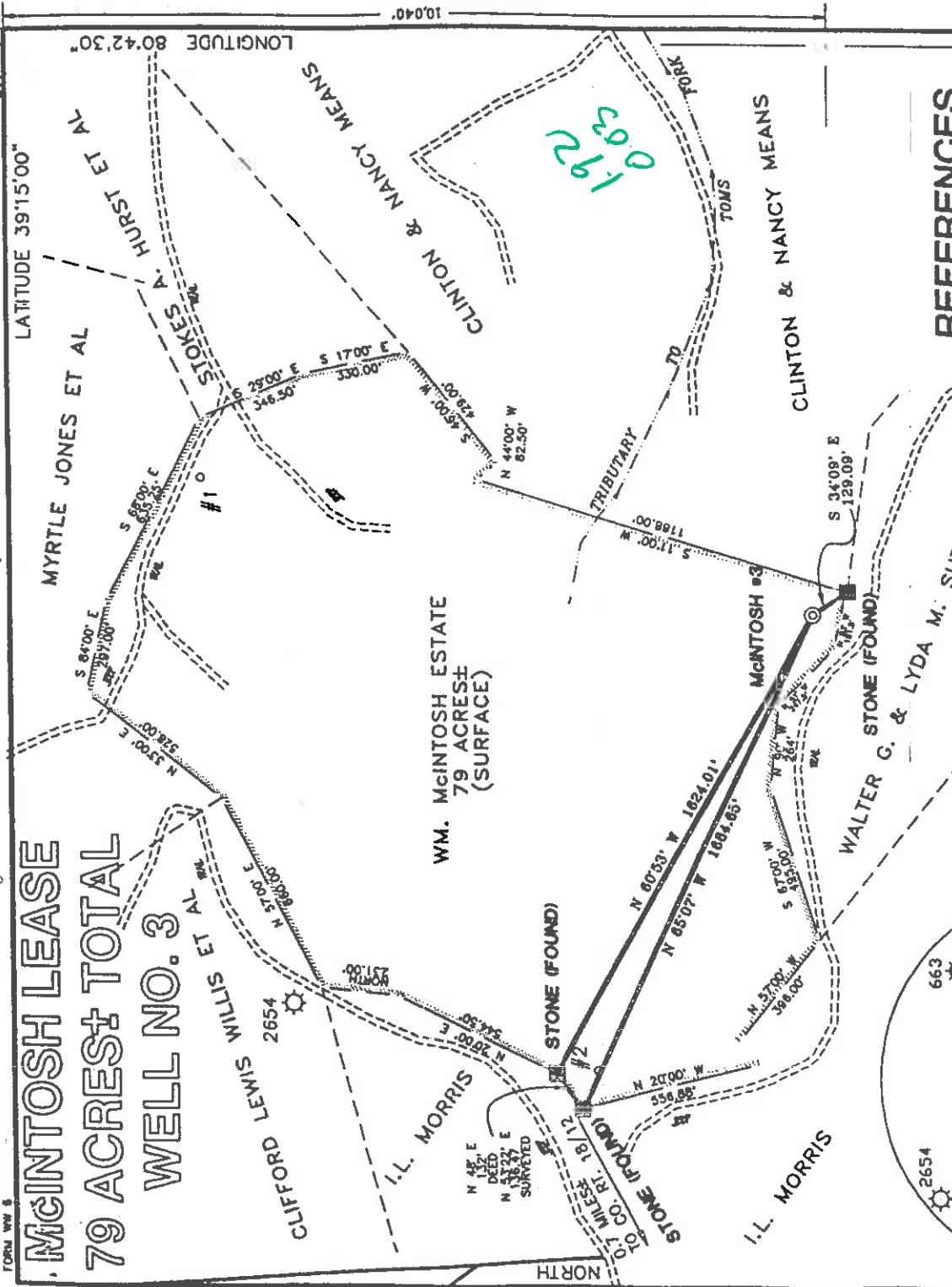
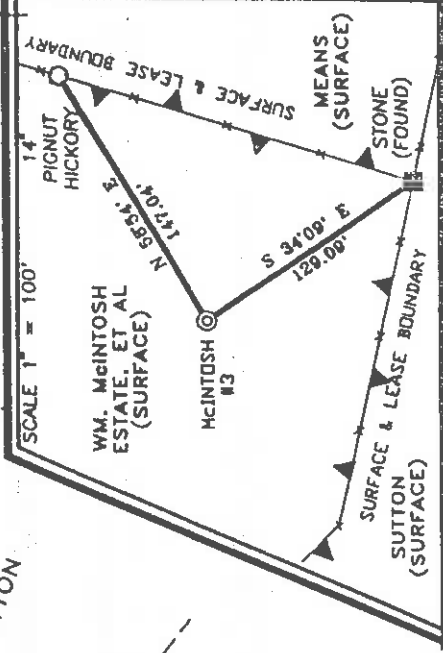


MCINTOSH LEASE 79 ACRES± TOTAL WELL NO. 3



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 ENERGY.

P.S. *Gregory A. Smith*
677

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE JANUARY 28, 19 98
OPERATORS WELL NO. MCINTOSH #3
API WELL NO. 47-17-17-04442
STATE COUNTY PERMIT



MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 3882P3 (64-66)
PROVEN SOURCE OF ELEVATION TOP OF KNOB ELEVATION 1246'
SCALE 1" = 500'

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

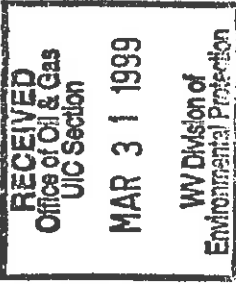
LOCATION : ELEVATION 1133' WATERSHED TRIBUTARY OF TOMS FORK
DISTRICT NEW MILTON COUNTY DODDRIDGE QUADRANGLE NEW MILTON 7.5'
SURFACE OWNER WM. MCINTOSH ESTATE, ET AL ACREAGE 79
ROYALTY OWNER WM. MCINTOSH ESTATE, ET AL LEASE ACREAGE 79 LEASE NO. _____
PROPOSED WORK :
DRILL CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___ OTHER ALEXANDER
PHYSICAL CHANGE IN WELL (SPECIFY) TARGET FORMATION 5600' 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

Dodd 4442

6-6 144

WR-35



04 - Jun - 98
API # 47 - 17 - 04442

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

WV Division of
Environmental Protection

Well Operator's Report of Well Work

Farm name: PHILLIPS, MARY A.

Operator: Well No. : MCINTOSH #3

LOCATION: Elevation: 1,133.00

Quadrangle: NEW MILTON

District: NEW MILTON
Latitude: 10040 Feet South of 39 Deg. 15 Min. 0 Sec.
Longitude: 200 Feet West of 80 Deg. 42 Min. 30 Sec.

County: DODDRIDGE

Company: KEY OIL COMPANY
22 GARTON PLAZA
WESTON, WV 26452-0000

Agent: JAN E. CHAPMAN

Inspector: MIKE UNDERWOOD
Permit Issued: 06/04/98
Well Work Commenced: 08/28/98
Well Work Completed: 09/02/98

Verbal Plugging
Permission granted on: _____ Rig
Rotary X Cable _____
Total Depth (feet) _____ 5570'
Fresh water depths (ft) _____ 68'
Salt water depths (ft) _____ 1860'

Is coal being mined in area (Y/N)? N
Coal Depths (ft): _____ NONE

OPEN FLOW DATA

Warren
Speechley
Balltown
Rileys
Benson
Elk

Producing formation: Alexander
Gas: Initial open flow 81 MCF / d Pay zone depth (ft)
Final open flow 1,540 MCF / d Oil: Initial open flow 0 Bbl / d
Time of open flow between initial and final tests N/A Oil: Final open flow show Bbl / d
Static rock pressure 1550 psig (surface pressure) after 96 Hours

Second producing formation: Commingled
Gas: Initial open flow _____ MCF / d Pay zone depth (ft)
Final open flow _____ MCF / d Oil: Initial open flow _____ Bbl / d
Time of open flow between initial and final tests _____ Oil: Final open flow _____ Bbl / d
Static rock pressure _____ psig (surface pressure) after _____ Hours

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.

For: KEY OIL COMPANY

By: _____
Date: March 26, 1999

PRESIDENT

APR 12 1999

0000 4442

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8 5/8"	1125.50'	1125.50'	315 sks To Surface
4 1/2"	5492.05'	5492.05'	500 sks
2 3/8"		5296'	

3341' - 3429'
3449' - 3651'
3678' - 4457'
4561' - 4974'
5044' - 5056'
5174' - 5201'
5295' - 5435'

McIntosh #3 (47-017- 04442)
 Four Stage Foam Frac - Halliburton

1st Stage: Alexander (15 holes) (5316.25' to 5423.75') 60 Quality Foam. 500 gal. 15% HCL.
 Elk (2 holes) (5189' & 5189.25') 60,000# 20/40 sand, 550,000 SCF N2,
 815 bbbls foam.

2nd Stage: Benson (7 holes) (5046.25' to 5047.75') 60 Quality Foam. 1000 gal 15% HCL.
 Third Riley (2 holes) (4956.25' & 4956.50') 50,000# 20/40 sand, 417,000 SCF N2,
 Second Riley (3 holes) (4854.50' to 4858.50') 714bbbls foam.

3rd Stage: Riley (8 holes) (4590.25' to 4592') 60 Quality Foam. 1,000 gal 15% HCL.
 Balltown (5 holes) (4155.25' to 4366.25') 5,000# 80/100 sand, 45,000# 20/40 sand,
 502,000 SCF N2, 745 bbbls foam.

4th Stage: Balltown (3 holes) (3788.75' to 3789.25') 60 Quality Foam. 1,000 gal 15% HCL.
 Speechley (8 hole) (3474' to 3531.25') 5,000# 80/100 sand, 45,000# 20/40 sand,
 Warren (2 holes) (3418' & 3418.25') 502,000 SCF N2, 684 bbbls foam.

WELL LOG

Fill	0	5	1/2" H ₂ O @ 68'
Sand & Shale & Red Rock	5	300	
Sand	300	314	
Sand & Shale	314	450	
Sand	450	470	
Sand & Shale	470	700	
Sand	700	804	
Red Rock & Shale	804	1243	
Sand & Shale	1243	1385	
Red Rock & Shale	1385	1512	
Sand & Shale	1512	1777	
Sand	1777	2014	Hole damp @ 1860'
Little Lime	2014	2026	
Sand & Shale	2026	2048	
Big Lime	2048	2118	
Big Injun	2118	2194	
Shale	2194	2338	
Weir	2338	2422	
Shale	2422	2540	
Berea	2540	2556	
Shale	2556	2752	
Gordon	2752	2766	
Sand & Shale	2766	3341	
Warren	3341	3429	
Sand & Shale	3429	3449	
Speechley	3449	3651	
Shale	3651	3678	
Balltown	3678	4457	
Shale	4457	4561	
Riley	4561	4623	
Shale	4623	4821	
Second Riley	4821	4866	
Shale	4866	4918	
Third Riley	4918	4974	
Shale	4974	5044	
Benson	5044	5056	
Shale	5056	5174	
Elk	5174	5201	
Shale	5201	5295	
Alexander	5295	5435	
Sand & Shale	5435	5570	
T.D.	5570		

Gas Checks
 4346' - 58/10^{ths} - 1" w/water