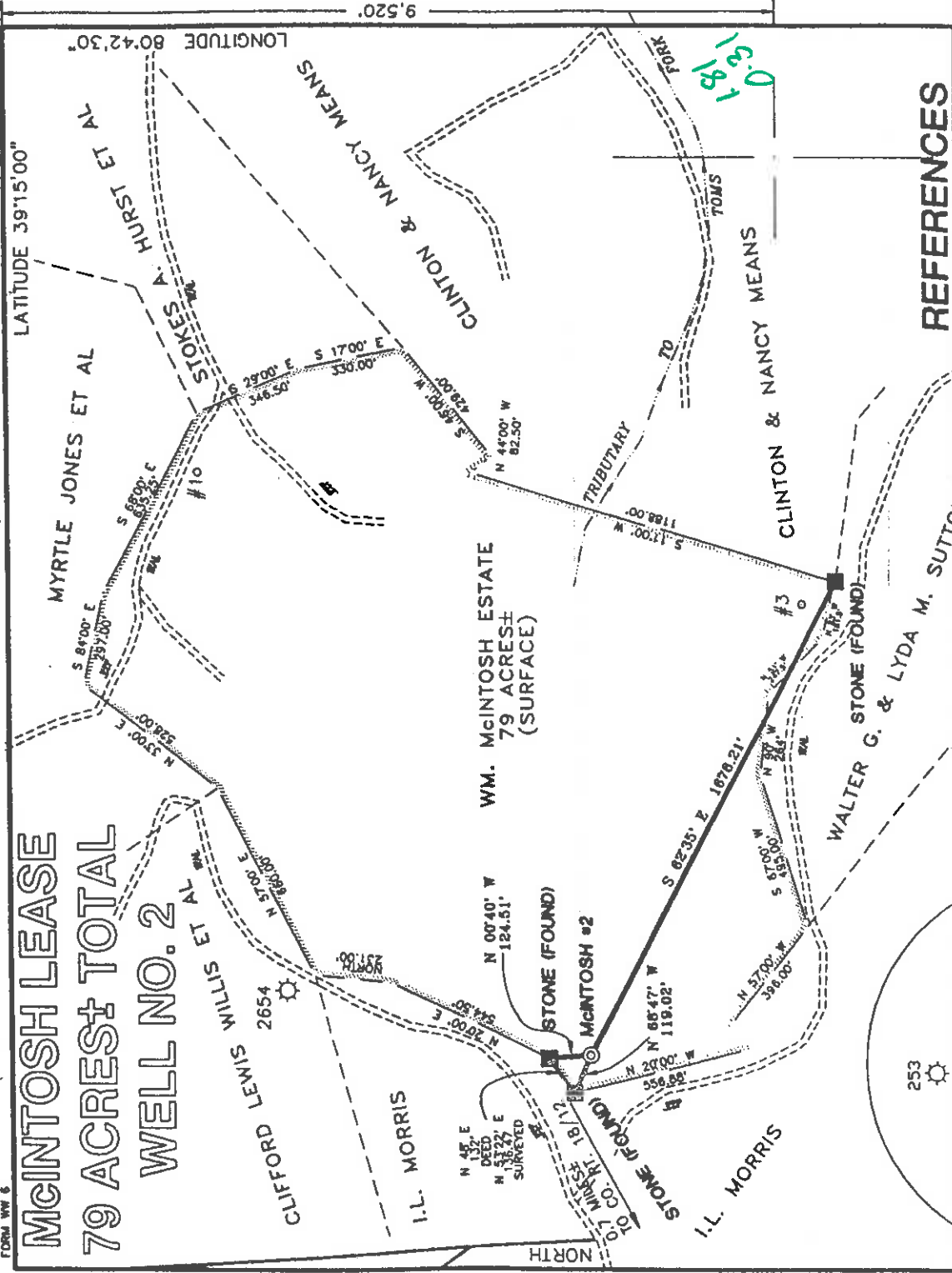
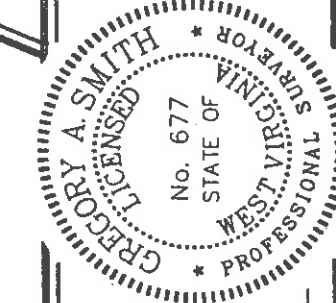
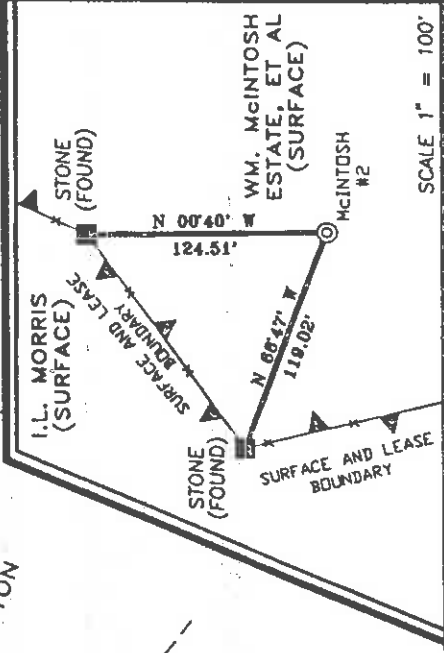


MCINTOSH LEASE 79 ACRES± TOTAL WELL NO. 2



REFERENCES



I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN 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

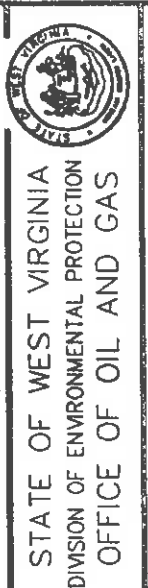
MINIMUM DEGREE OF ACCURACY 1 / 200
FILE NO. 3882P2 (64-65)
PROVEN SOURCE TOP OF KNOB ELEVATION 1246'
SCALE 1" = 500'

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

LOCATION : ELEVATION 1220' 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
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
6-6-1994

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE JANUARY 28, 19 98
OPERATORS WELL NO. MCINTOSH #2
API WELL NO. 47-17-04441
STATE COUNTY PERMIT

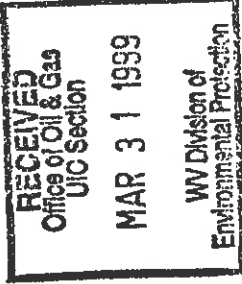


STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

DODD 4441

JUN 18 1998

WR-35



04 - Jun - 98
API # 47 - 17 - 04441

Reviewed [Signature]

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

Well Operator's Report of Well Work

Farm name: PHILLIPS, MARY A.

Operator Well No.: McINTOSH #2

LOCATION: Elevation: 1,220.00

Quadrangle: NEW MILTON

District: NEW MILTON

County: DODDRIDGE

Latitude: 9520 Feet South of 39 Deg. 15 Min. 0 Sec.

Longitude: 1650 Feet West of 80 Deg. 42 Min. 30 Sec.

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: 08/24/98
Well Work Completed: 08/28/98

Verbal Plugging
Permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) _____ 5637'
Fresh water depths (ft) _____ 50'
Salt water depths (ft) _____

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

Casing & Tubing Size	Used in Drilling	Left In Well	Cement Fill Up Cu. Ft.
8 5/8"	1226.20'	1226.20'	340 sks To Surface
4 1/2"	5546'	5546'	460 sks
2 3/8"		5380'	

OPEN FLOW DATA

Producing formation Speechley
 Gas: Initial open flow 15 MCF / d Balltown
 Final open flow 1,391 MCF / d Rileys
 Time of open flow between initial and final tests _____
 Static rock pressure 1575 psig (surface pressure) after 96 Hours
 Pay zone depth (ft) _____
 Oil: Initial open flow _____ Bbl / d
 Oil: Final open flow show _____ Bbl / d
 Hours _____
 Hours _____

Second producing formation Commingled
 Gas: Initial open flow _____ MCF / d _____
 Final open flow _____ MCF / d _____
 Time of open flow between initial and final tests _____
 Static rock pressure _____ psig (surface pressure) after _____
 Hours _____
 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: [Signature]
Date: March 26, 1999

PRESIDENT

Dodo 4441

APR 12 1999

McIntosh #2 (47-017-04441)
Four Stage Foam Frac - Halliburton

1 st Stage:	Alexander (15 holes) (5385' to 5457.25') Elk (1 hole) (5247.75')	60 Quality Foam. 500 gal. 15% HCL. 60,000# 20/40 sand, 550,000 SCF N2, 815 bbis foam.
2 nd Stage:	Benson (7holes) (5112.25' to 5113.75') Third Riley (3 holes) (5023.25' to 5023.75') Second Riley (4 holes) (4831.50' to 4893')	60 Quality Foam. 1,000 gal 15% HCL. 50,000# 20/40 sand, 472,000 SCF N2, 714 bbis foam.
3 rd Stage:	Riley (11 holes) (4629.50' to 4656.25') Balltown (2 holes) (4210' & 4210.25')	60 Quality Foam. 1,000 gal 15% HCL. 5,000# 80/100 sand, 45,000# 20/40 sand, 502,000 SCF N2, 745 bbis foam.
4 th Stage:	Speechley (13 holes) (3499.75' to 3581.25')	60 Quality Foam. 750 gal 15% HCL. 5,000# 80/100 sand, 45,000# 20/40 sand, 502,000 SCF N2, 684 bbis foam.

WELL LOG

Fill	0	4		
Sand	4	12		
Sand & Shale	12	32		
Red Rock & Sand & Shale	32	290		
Sand & Shale	290	350		1/2" H ₂ O @ 50'
Sand	350	376		
Red Rock & Sand & Shale	376	467		
Sand & Shale	467	2062		
Little Lime	2062	2072		
Sand & Shale	2072	2080		
Big Lime	2080	2147		
Big Injun	2147	2240		
Shale	2240	2375		
Weir	2375	2472		
Shale	2472	2590		
Berea	2590	2609		
Shale	2609	2799		
Gordon	2799	2816		
Shale	2816	3448		
Warren	3448	3477		
Shale	3477	3498		
Speechley	3498	3710		
Shale	3710	3736		
Balltown	3736	4510		
Shale	4510	4598		
Riley	4598	4677		
Shale	4677	4822		
Second Riley	4822	4949		
Shale	4949	5000		
Third Riley	5000	5040		
Shale	5040	5110		
Benson	5110	5120		
Shale	5120	5217		
Elk	5217	5264		
Sand & Shale	5264	5354		
Alexander	5354	5465		
Sand & Silt	5465	5637		
T.D.	5637			

Gas Checks

2504' - No Show
 3029' - 2/10^{ths} - 1" w/water
 3554' - No Show
 4601' - No Show
 5004' - No Show
 5317' - 2/10^{ths} - 1" w/water
 TD - 2/10^{ths} - 1" w/water