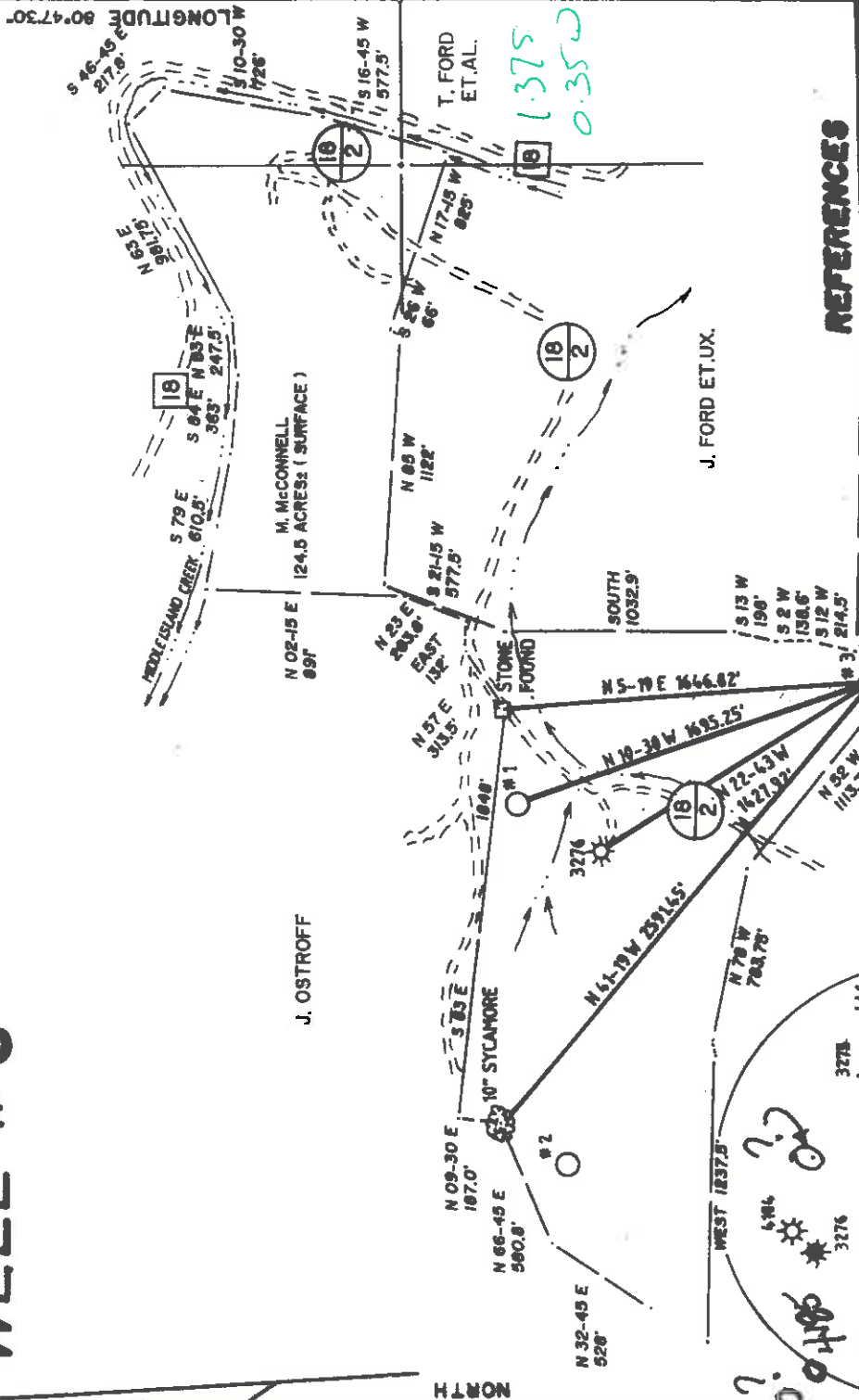


# FORD LEASE 124.5 ACRES ± WELL # 3

LATITUDE 39°20'00"

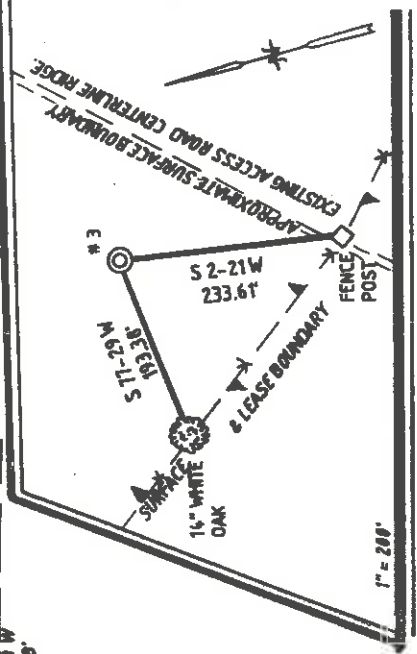
LONGITUDE 80°47'30"

1.690'



1.375  
0.350

### REFERENCES

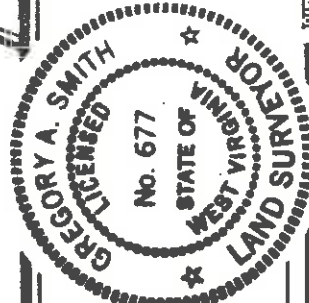


(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE DECEMBER 7, 19 95

OPERATORS WELL NO. FORD # 3

API WELL NO. 47 STATE WEST VIRGINIA COUNTY DODD PERMIT 017-04381



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 BY THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENERGY.

L.L.S. *Gregory A. Smith*  
677

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 3348 (56-76)

PROVEN SOURCE OF ELEVATION TOP OF KNOB ELEVATION 1076' SCALE 1" = 800'

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

LOCATION: ELEVATION 1102' WATERSHED MIDDLE ISLAND CREEK QUADRANGLE WEST UNION 7.5'

DISTRICT WEST UNION COUNTY DODD ACREAGE 124.5

SURFACE OWNER MARTHA ANN McCONNELL LEASE NO.         

ROYALTY OWNER JACK FORD ET AL. LEASE ACREAGE 124.5

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

WELL OPERATOR Murvin & Meier Oil Company DESIGNATED AGENT P. NATHAN BOWLES, JR. ESTIMATED DEPTH 5400'

ADDRESS P.O. BOX 297 OLNEY, IL 62450 ADDRESS P.O. BOX 1366 CHARLESTON, WV 25325

WEST VIRGINIA *formerly 017-04381*  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS COMPANY NAME (Charge)           
#10 MCKUNKIN ROAD  
NITRO, WEST VIRGINIA 25143-2506

COUNTY NAME          PERMIT         

JUN 27 1995

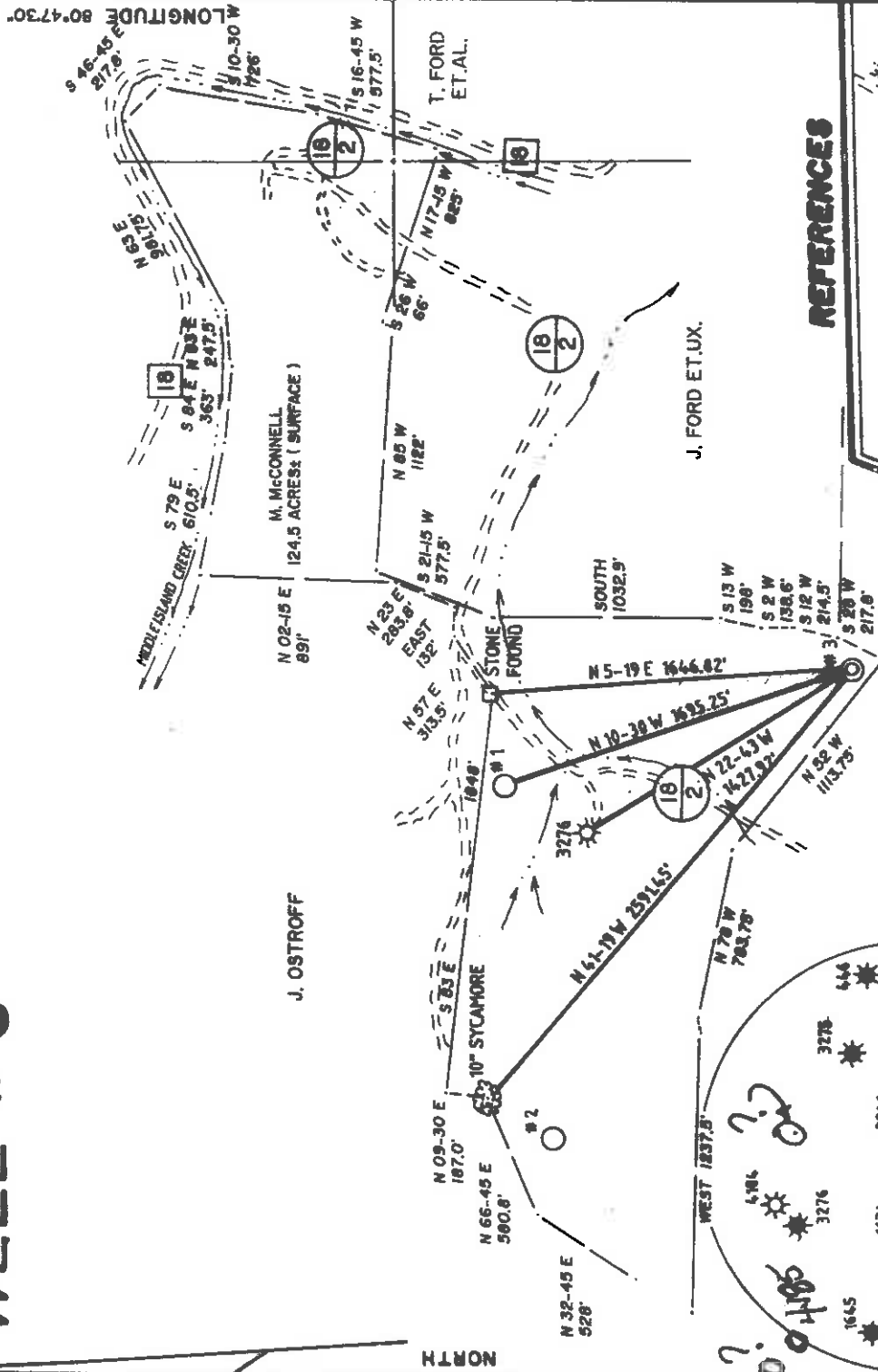
6-6 91

LATITUDE 39°20'00"

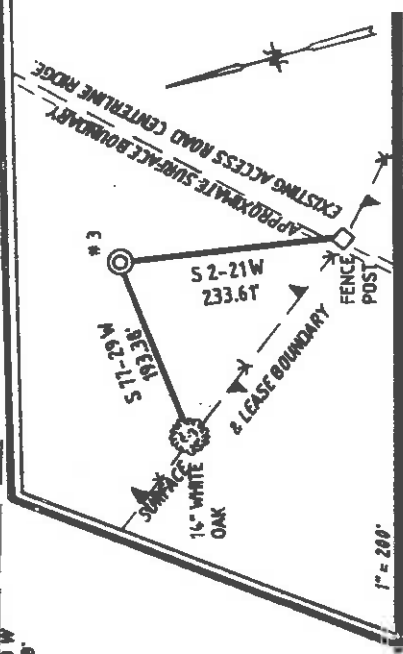
1,890'

LONGITUDE 80°47'30"

# FORD LEASE 124.5 ACRES ± WELL # 3

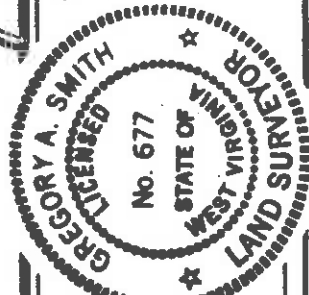


### REFERENCES



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L.L.S. *Gregory A. Smith*  
677



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

DATE DECEMBER 7, 19 95  
OPERATORS WELL NO. FORD # 3

API WELL NO. 47 STATE VA COUNTY CLAY PERMIT NO. 017-04247-W

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY  
OIL AND GAS DIVISION

MINIMUM DEGREE OF ACCURACY 1' 200 FILE NO. 3348 (56-76)  
PROVEN SOURCE OF ELEVATION TOP OF KNOB ELEVATION 1076' SCALE 1" = 800'

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

LOCATION: ELEVATION 1102' WATERSHED MIDDLE ISLAND CREEK

DISTRICT WEST UNION COUNTY DODDRIIDGE QUADRANGLE WEST UNION 7.5'

SURFACE OWNER MARTHA ANN MCCONNELL ACREAGE 124.5

ROYALTY OWNER JACK FORD ET AL. LEASE ACREAGE 124.5

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 Murvin & Meier Oil Company DESIGNATED AGENT P. NATHAN BOWLES, JR.

ADDRESS P.O. BOX 297 OLNEY, IL 62450 ADDRESS P.O. BOX 1396 CHARLESTON, WV 25325

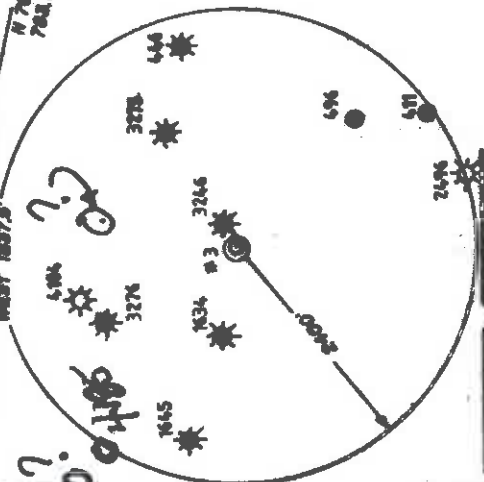
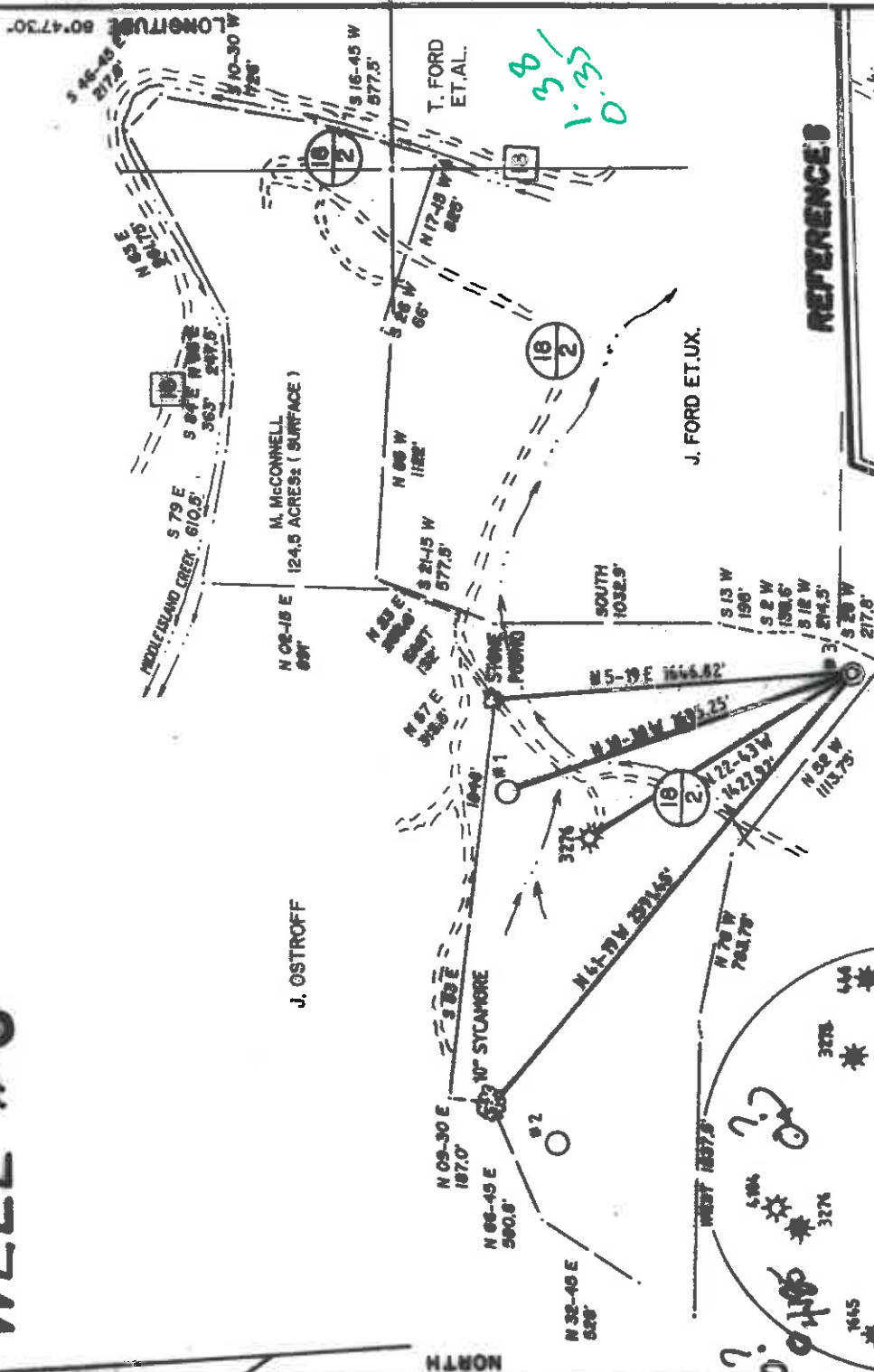
JUN 27 1997



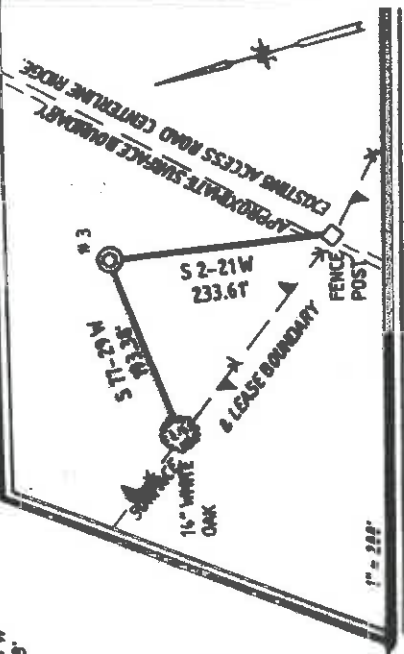
# FORD LEASE 124.5 ACRES WELL # 3

LATITUDE 39°20'00"

LONGITUDE 80°47'30"

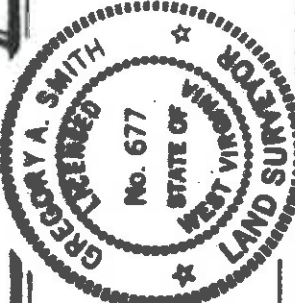


### REFERENCES



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L.L.S. *Gregory A. Smith*  
677



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

DATE DECEMBER, 19 95  
OPERATORS WELL NO. FORD # 3

API WELL NO. 47-017-04247  
STATE WV COUNTY OLNEY PERMIT

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 3358 (56-76)  
PROVEN SOURCE OF ELEVATION TOP OF KNOB ELEVATION 1076' SCALE 1" = 800'

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY  
OIL AND GAS DIVISION



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

LOCATION: ELEVATION 1192' WATERSHED MIDDLE ISLAND CREEK COUNTY OLNEY QUADRANGLE WEST UNION 7.5'

SURFACE OWNER MARTHA ANN MCCONNELL ACREAGE 124.5  
ROYALTY OWNER JACK FORD ET AL. LEASE ACREAGE 124.5

PROPOSED WORK:  
DRILL  CONVERT  DRILL DEEPER  REDWELL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER  PHYSICAL CHANGE IN WELL (SPECIFY) ALEXANDER TARGET FORMATION ALEXANDER LEASE NO. 10010174381 ESTIMATED DEPTH 5400'

WELL OPERATOR MURVIN OIL CORP. DESIGNATED AGENT P. NATHAN BOWLES, JR.  
ADDRESS P.O. BOX 297 OLNEY, IL 62450 ADDRESS P.O. BOX 1386 CHARLESTON, WV 25325



**RECEIVED**  
 WV Division of  
 Environmental Protection

JUL 22 1997

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

**Permitting  
 Office of Oil & Gas**

**Well Operator's Report of Well Work**

Farm name: **McCONNELL, MARTHA A. FORD** Operator Well No.: **M. FORD #3**

LOCATION: Elevation: **1,102.00** Quadrangle: **WEST UNION**

County: **DODDRIDGE**

District: **WEST UNION**

Latitude: **7230 Feet South of 39 Deg. 20 Min. 0 Sec.**

Longitude: **1890 Feet West of 80 Deg. 47 Min. 30 Sec.**

Company: **MURVIN OIL COMPANY**  
**130 E. MARKET, P.O. BOX 396**  
**OLNEY, IL 62450-0000**

Agent: **P. NATHAN BOWLES, JR.**

Inspector: **MIKE UNDERWOOD**  
 Permit Issued: **06/23/97**  
 Well Work Commenced: **07/01/97**  
 Well Work Completed: **07/16/97**

Verbal Plugging  
 Permission granted on: \_\_\_\_\_ Rig  
 Rotary X Cable \_\_\_\_\_  
 Total Depth (feet) **5523'**  
 Fresh water depths (ft) **112'**  
 Salt water depths (ft) **DAMP @ 1400'**

Is coal being mined in area ( Y / N )? **N**  
 Coal Depths ( ft ): **None Reported**

**OPEN FLOW DATA**

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8 5/8"	1,049	1049	354 Ft <sup>3</sup> To Surface
4 1/2"	5478	5478	645 Ft <sup>3</sup>

Producing formation **Riley, Benson, Alexander** Pay zone depth ( ft ) **4592' to 5361'**  
 Gas: Initial open flow show **MCF / d** Oil: Initial open flow **-** Bbl / d  
 Final open flow **852** MCF / d Oil: Final open flow **-** Bbl / d  
 Time of open flow between initial and final tests **4** Hours  
 Static rock pressure **1250** psig ( surface pressure ) after **24** Hours

Second producing formation **Warren, Speechly, Balltown** Pay zone depth ( ft ) **3404' to 4493'**  
 Gas: Initial open flow show **MCF / d** Oil: Initial open flow **-** Bbl / d  
 Final open flow **852** MCF / d Oil: Final open flow **-** Bbl / d  
 Time of open flow between initial and final tests **4** Hours  
 Static rock pressure **1250** psig ( surface pressure ) after **24** 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: **MURVIN OIL COMPANY**

By: *Craig L. Hill* Vice President

Agent

*JUL 25 1997*

Date: July 18, 1997

07/14/97: Ran Bond Log and perforated Alexander formation 5298' to 5361' with 20 holes.

07/15/97: Foam fractured Alexander perfs with 327 bbls fluid, 60,000 lbs 20/40, 555 MSCF Nitrogen, 500 gals. 15% HCL.

Perforated Benson formation 5031' to 5033' with 10 holes. Foam fractured perfs with 255 bbls fluid, 30,000 lbs 20/40, 416 MSCF Nitrogen, 750 gals. 15% HCL.

Perforated Riley Lower Balltown formations 4493' to 4627' with 13 holes. Foam fractured perfs with 303 bbls. fluid, 32,000 lbs 20/40, 10,000 lbs. 80/100, 450 MSCF Nitrogen, 750 gals 15% HCL.

Perforated Upper Balltown, Speechly, ans Warren formations 3404' to 3971' with 18 holes. Foam fractured perfs with 375 bbls. fluid, 10,000 lbs. 80/100, 50,000 lbs. 20/40, 504 MSCF Nitrogen, 750 gals. 15% HCL.

WELL LOG

<u>FORMATION</u>	<u>TOP</u>	<u>BOTTOM</u>
KB TO G.L.	0	10
FILL	10	14
SHALE	14	20
SAND	20	48
RED ROCK	48	52
SHALE	52	55
SAND	55	112
RED ROCK	112	149
SAND	149	186
RED ROCK	186	200
SANDY SHALE	200	342
RED ROCK	342	630
SAND & SHALE	630	790
SHALE/RED ROCK	790	807
SANDY SHALE	807	1340
RED ROCK	1340	1424
SANDY SHALE	1424	1455
SAND	1455	1472
SANDY SHALE	1472	1524
SAND	1524	1581
SHALE	1581	1704
SAND	1704	1747
SHALE	1747	1802
SAND	1802	1813
SHALE	1813	2004
SAND	1991	2108
SHALE	2004	2170
BIG LIME	2108	2290
INJUN	2170	2437
SHALE	2290	2700
WEIR	2437	2700
SANDY SHALE	2700	2747
GORDON	2747	3386
SANDY SHALE	3386	3455
WARREN	3455	3468
SHALE	3468	3578
SPEECHLY	3578	3776
SHALE	3776	4524
BALLTOWN		

SHALE  
RILEY  
SHALE  
BENSON  
SHALE  
ALEXANDER  
SHALE

TOTAL DEPTH

4524  
4562  
4654  
5026  
5038  
5274  
5377

5523

4562  
4654  
5026  
5038  
5274  
5377  
5523

017 4381

JUL 25 1997





STATE OF WEST VIRGINIA  
 DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
 WELL WORK PERMIT APPLICATION

Permitting  
 Office of Oil & Gas  
 Operator: Murvin Oil Company <sup>395</sup> 34050 8 671

2) Operator's Well Number: M. Ford #3 3) Elevation: 1102

4) Well type: (a) Oil / or Gas X/ Issued 03/07/96  
 (b) If Gas: Production X/ Underground Storage / Expires 03/07/98  
 Deep / Shallow X/

Proposed Target Formation(s): Balltown, Riley, Benson, Alexander <sup>439</sup>

Proposed Total Depth: 5490 feet

Approximate fresh water strata depths: 60'

Approximate salt water depths: -

Approximate coal seam depths: -

10) Does land contain coal seams tributary to active mine? Yes / No X/

11) Proposed Well Work: Drill and Complete New Well

12)

CASING AND TUBING PROGRAM

TYPE	SIZE	GRADE	WEIGHT per ft.	FOOTAGE	FOOTAGE INTERVALS	CEMENT
				For drilling	Left in well	Fill-up (cu. ft.)
Conductor						
Fresh Water	8 5/8	L.S.	20	1050	1050	OK MU CTS
Coal						
Intermediate						
Production	4 1/2	J/K	10.5	5490	5490	400
Tubing						
Liners						

PACKERS : Kind \_\_\_\_\_  
 Sizes \_\_\_\_\_  
 Depths set \_\_\_\_\_

For Office of Oil and Gas Use Only  
 Fee(s) paid:  Well Work Permit  Reclamation Fund  WPCP  
 Plat  WW-9  WW-2B  Bond  Agent  
 (Type)

7

**RECEIVED**  
The Division of  
Environmental Protection

FEB 20 1996

Permitting  
Office of Oil & Gas

**STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS**

1) Date: January 31, 1996  
2) Operator's well number M. Ford #3  
3) API Well No: 47 - 017 - 4247  
State County Permit

**NOTICE AND APPLICATION FOR A WELL WORK PERMIT**

- 4) Surface Owner(s) to be served:
- (a) Name Martha Ann Ford McConnell Name None  
 Address Mid Star Rt. Box 16 Address \_\_\_\_\_  
West Union, West Virginia 26456
- (b) Name \_\_\_\_\_ (b) Coal Owner(s) with Declaration  
 Address \_\_\_\_\_ Name Ida Ford Heirs  
 Address c/o Jack Ford  
P.O. Box 6, West Union, West Virginia 26456  
 Name \_\_\_\_\_  
 Address \_\_\_\_\_
- (c) Name \_\_\_\_\_ (c) Coal Lessee with Declaration  
 Name \_\_\_\_\_  
 Address \_\_\_\_\_
- 6) Inspector Mr. Mike Underwood  
 Address Route 2, Box 135  
Salem, West Virginia 26426  
 Telephone (304) - 782-1043

**TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:**

Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR

Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through 8 on the above named parties, by: \_\_\_\_\_  
Personal Service (Affidavit attached)  
 Certified Mail (Postmarked postal receipt attached)  
Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator Murvin Oil Company  
By: *Gary A. Hill*  
Its: Executive Vice President  
Address P.O. Box 297  
Olney, Illinois 62450

Subscribed and sworn before me this 31<sup>st</sup> day of January, 1996

My commission expires November 9, 1996 Notary Public  
*Barbara A. Hill*

STATE OF WEST VIRGINIA  
 DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
 WELL WORK PERMIT APPLICATION

- 1) Well Operator: Murvin & Meier Oil Company 5868 34650 671
- 2) Operator's Well Number: M. Ford #3 3) Elevation: 1102'
- 4) Well type: (a) Oil / or Gas X/ Issued 06/23/97  
 (b) If Gas: Production X/ Underground Storage / Expires 06/23/99  
 Deep / Shallow X/ 429
- Proposed Target Formation(s): Balltown, Riley, Benson, Alexander
- Proposed Total Depth: 5490' feet
- Approximate fresh water strata depths: 60'
- Approximate salt water depths: -
- Approximate coal seam depths: -
- Does land contain coal seams tributary to active mine? Yes / No X/
- Proposed Well Work: Drill and Complete New Well
- 12)

CASING AND TUBING PROGRAM

TYPE                      SPECIFICATIONS                      FOOTAGE INTERVALS                      CEMENT

TYPE	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor	-					
Fresh Water	8 5/8	L.S.	20	1050	1050	3858/11.3
Coal						CTS
Intermediate						3858/11.2
Production	4 1/2	J/K	10.5	5490	5490	400
Tubing						3858/11.1
Liners						

PACKERS : Kind \_\_\_\_\_  
 Sizes \_\_\_\_\_  
 Depths set \_\_\_\_\_

For Office of Oil and Gas Use Only

Fee(s) paid:  Well Work Permit  Reclamation Fund  WPCP

Plat  WW-9  WW-2B  Bond \_\_\_\_\_ (Type)

1) Date: May 21, 1997  
2) Operator's well number  
3) API Well No: 47 - 017 - 4381  
State County Permit

STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- 4) Surface Owner(s) to be served:
- (a) Name Martha Ann Ford McConnell  
Address Mid Star Rt. Box 16  
West Union, WV 26456
- (b) Name \_\_\_\_\_  
Address \_\_\_\_\_
- (c) Name \_\_\_\_\_  
Address \_\_\_\_\_
- 6) Inspector Mr. Mike Underwood  
Address Rt. 2, Box 135  
Salem, WV 26426  
Telephone (304) - 782-1043
- 5) (a) Coal Operator:  
Name \_\_\_\_\_  
Address \_\_\_\_\_
- (b) Coal Owner(s) with Declaration  
Name Ida Ford Heirs  
Address c/o Jack Ford  
P.O. Box 6, West Union, WV 26456  
Name \_\_\_\_\_  
Address \_\_\_\_\_
- (c) Coal Lessee with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR

Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

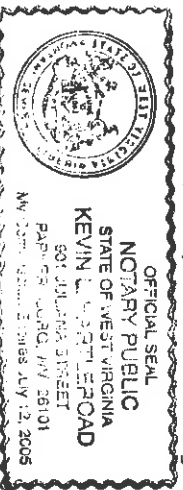
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- Certified Mail (Postmarked postal receipt attached)
- Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.



Well Operator Murvin & Meier Oil Company  
By: Gay Hill  
Its: Vice President  
Address P.O. Box 396  
Olney, Illinois 62450  
Telephone 618-395-4405

Subscribed and sworn before me this 21 day of May, 1997  
Karin F. Underwood Notary Public  
My commission expires July 12, 2006