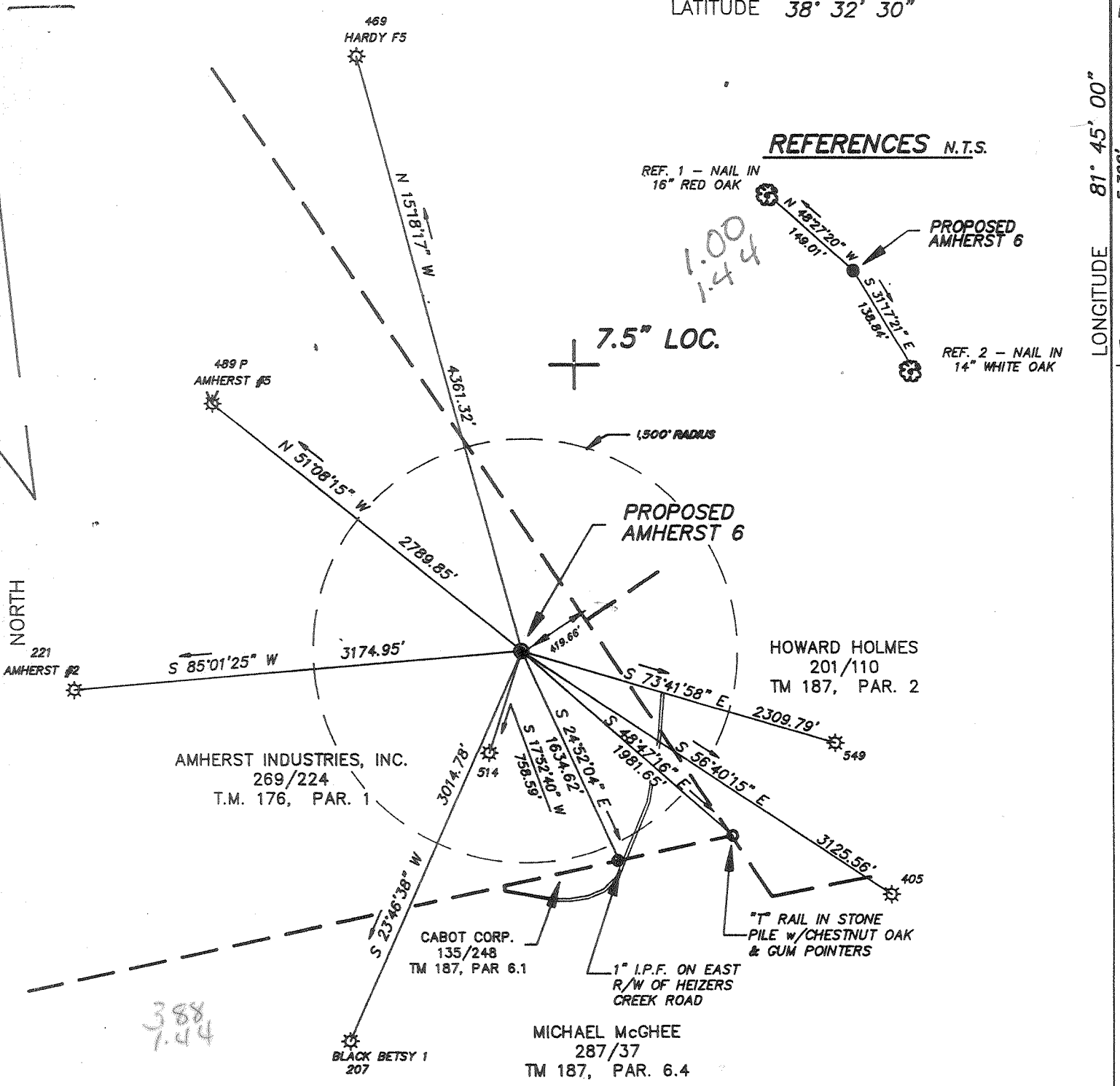


LATITUDE 38° 32' 30"

LONGITUDE 81° 45' 00"

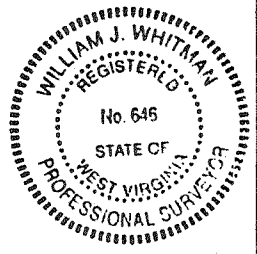


(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE No 8723-238  
 DRAWING No. AMHERST 6  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1 : 2500  
 PROVEN SOURCE OF ELEVATION U.S.G.S. BM U97  
ELEV. 635

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 MINES

(SIGNED) William J. Whitman R.P.S.  
 R.P.E. \_\_\_\_\_ R.P.S. 646



PLACE SEAL HERE

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION



DATE NOVEMBER 10 19 92  
 OPERATOR'S WELL No. AMHERST 6  
 API WELL No. \_\_\_\_\_

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_ STATE 47 COUNTY 079 PERMIT 1174  
 (IF "GAS") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW \_\_\_

LOCATION: ELEVATION 909.63 WATER SHED HEIZER CREEK  
 DISTRICT POCATALICO COUNTY POTNAM  
 QUADRANGLE BANCROFT, W. VA. Winfield SE

SURFACE OWNER AMHERST INDUSTRIES ACREAGE 2762.72  
 OIL & GAS ROYALTY OWNER HATFIELD-RELIANCE COAL CO. LEASE ACREAGE \_\_\_\_\_  
 LEASE No. \_\_\_\_\_

PROPOSED WORK: DRILL X CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE \_\_\_ PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION \_\_\_\_\_ ESTIMATED DEPTH \_\_\_\_\_  
 WELL OPERATOR CABOT OIL & GAS CORP. DESIGNATED AGENT STEVE TURK  
 ADDRESS P.O. BOX 1473 ADDRESS P.O. BOX 1473  
CHARLESTON, W. VA. CHARLESTON, W. VA.

DEEP WELL

5-5 312

FORM IV-6 (8-78)

079-1174 issued 12/21/92  
Expires 12/21/94

FORM WW-2B

Page \_\_\_ of \_\_\_

**STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS  
WELL WORK PERMIT APPLICATION**

- 1) Well Operator: Cabot Oil & Gas Corporation
- 2) Operator's Well Number: Amherst #6 3) Elevation: 909.63'
- 4) Well type: (a) Oil \_\_\_ / or Gas X /  
(b) If Gas: Production X / Underground Storage \_\_\_ /  
Deep X / Shallow \_\_\_ /
- 5) Proposed Target Formation(s): Tonoloway, Oriskany, Devonian Shale Newburg
- 6) Proposed Total Depth: 5725 feet
- 7) Approximate fresh water strata depths: 238, 289
- 8) Approximate salt water depths: 806, 900, 1600, 1650, 1760, 2000, 2100
- 9) Approximate coal seam depths: 109, 309, 486
- 10) Does land contain coal seams tributary to active mine? Yes X / No \_\_\_
- 11) Proposed Well Work: Drill & complete Gas Well
- 12)

**CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT	
	Size	Grade	Weight per ft.	For drilling		Left in well
Conductor	16	L8	65	30	30	10 sx GFS
Fresh Water	13-3/8	L8	54	350	350	CTS
Coal	9-5/8	J-55	36	2100	2100	CTS
Intermediate	7	J-55	20 & 23	4850	4850	150 sx
Production	4-1/2	J-55	10.50	5700	5700	100 sx
Tubing	2-3/8	CW-55	4.6		5650	N/A
Liners						

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

For Division of Oil and Gas Use Only

Fee(s) paid:  Well Work Permit  Reclamation Fund  WPCP  
 Plat  WW-9  WW-2B  Bond \_\_\_\_\_  Agent

16550

10077  
44

RECEIVED

Division of Environmental Protection

DEC 15 92

Permitting Office of Oil & Gas

16550

- 1) Date: 12-8-92
- 2) Operator's well number Amherst #6
- 3) API Well No: 47 - State - County - Permit

STATE OF WEST VIRGINIA 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 Amherst Industries  
 Address 2 Port Amherst Drive  
 Charleston, WV 25306  
 (b) Name  
 Address  
 (c) Name  
 Address

5) (a) Coal Operator:  
 Name Ark Land Company  
 Address Attn: Michael E. Hert  
 P.O. Box 4187, Fairview Height, Ill 62203  
 (b) Coal Owner(s) with Declaration  
 Name Amherst Industries  
 Address 2 Port Amherst Drive  
 Charleston, WV 25306  
 Name  
 Address

6) Inspector Glen P. Robinson  
 Address Box 1  
 Belleville, WV 26133  
 Telephone (304)-863-8766

(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

X Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through on the above named parties, by:

- Personal Service (Affidavit attached)
- X Certified Mail (Postmarked postal receipt attached)
- Publication (Notice of Publication attached)

I have read and understand Chapter 22B 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 Cabot Oil & Gas Corporation  
 By: Steven D. Turk  
 Its: Regional Drilling Manager  
 Address Three Gateway Center, Suite 2000  
 Pittsburgh, PA 15222-1011  
 Telephone (412) 594-7000

Subscribed and sworn before me this 9 day of December, 1992

My commission expires Notary Public

State of West Virginia  
DEPARTMENT OF ENERGY  
Division of Oil and Gas  
Well Operator's Report of Well Work

Farm name: AMHERST INDUSTRIES

Operator Well No.: Amherst #6

Location: Elevation: 909.63

Quadrangle: Bancroft

District: Pocatalico

County: Putnam

Latitude: 5300 Feet South of 38 Deg. 32 Min. 30 Sec.

Longitude: 7600 Feet West of 81 Deg. 45 Min. 0 Sec.

Company: CABOT OIL & GAS CORPORATION  
3 Gateway Center, Suite 2000  
Pittsburgh, PA 15222

Agent: RUSSELL PERKINS

Inspector: Glen P. RobinsonPermit Issued: 12/21/92Well Work Commenced: 1/05/93Well Work Completed: 4/21/93

Verbal Plugging

Permission granted on: \_\_\_\_\_

Rotary X Cable \_\_\_\_\_ Rig \_\_\_\_\_Total Depth (feet) 6561Fresh water depths (ft) 288Salt water depths (ft) 557, 700Is coal being mined in area (Y/N)? YCoal Depths (ft): 110-114, 275-279

## OPEN FLOW DATA

Producing formation \*TUSCARORA Pay zone depth (ft) 6416-6442Gas: Initial open flow TSTM MCF/d Oil: Initial open flow N/A Bbl/dFinal open flow TSTM MCF/d Final open flow N/A Bbl/dTime of open flow between initial and final tests 192 HoursStatic rock Pressure 160 psig (surface pressure) after 22 HoursSecond Producing formation NEWBURG Pay zone depth (ft) 5688-5696Gas: Initial open flow N/A MCF/d Oil: Initial open flow N/A Bbl/dFinal open flow 130 MCF/d Final open flow N/A Bbl/dTime of open flow between initial and final tests 144 HoursStatic rock Pressure 1350 psig (surface pressure) after 14 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.

\*TUSCARORA FORMATION WAS PLUGGED AFTER TESTING. NEWBURG IS ONLY ZONE COMPLETED IN WELL AT PRESENT.

For: CABOT OIL & GAS CORPORATIONBy: *Donald Raylin*Date: 10/14/93

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
20"	45'	45'	n/a
13-3/8"	392'	392'	330 sks CL-A
9-5/8"	2196'	2196'	460 sks CL-A
7"	4911'	4911'	55 sks CL-A
4-1/2"	6513'	6513'	143 sks Laytex
2-3/8"	n/a	5050'	n/a

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Perf Tuscarora from 6416-6442. Break down Tuscarora w/500 gal 15% hcl (bdp = 3510#).  
 Perf'd Newburg from 5688-5696. Break down Newburg with 500 gals 15% hcl & 47 bbls  
 2% KCl (bdp = 4318 psig).

FORMATION	TOP	BOTTOM
SHALE	0	685
SAND & SHALE	685	1145
SHALE	1145	1520
SAND	1520	1800
LITTLE LIME	1800	1822
BIG LIME	1822	2030
INJUN SAND	2030	2086
SHALE	2086	2512
BEREA	2512	2528
SHALE	2528	4875
ONONDAGA	4875	4962
ORISKANY SAND	4962	4980
LIMESTONE/DOLOMITE	4980	5690
NEWBURG SAND	5690	5696
LIMESTONE/DOLOMITE	5696	5944
KEEFER SAND	5944	5975
SHALE	5975	6388
TUSCARORA SAND	6388	6451
SHALE <i>Juniata</i>	6451	6561
TD		6561

*1993 gas production - DEP database*

*15,083 Mcf*

DF - 615

DET - 535

*16591*



STATE OF WEST VIRGINIA  
**OIL AND GAS CONSERVATION COMMISSION**  
 1615 WASHINGTON STREET, EAST  
 CHARLESTON, WV 25311

GASTON CAPERTON  
 Governor

December 29, 1992

Section of Oil and Gas  
 Division of Energy

RE: APPLICATION FOR PERMIT #47 079 - 01174 TO DRILL DEEP WELL

COMPANY: Cabot Oil and Gas Corporation

FARM: Amherst Industries #6

COUNTY: Putnam DISTRICT: Pocatalico

The application of the above company is approved for Oriskany<sup>newburg?</sup>  
 (Approved or Disapproved)

Applicant has complied with the provisions of Chapter twenty-two, eight (22-8), of the Code of West Virginia, nineteen hundred and thirty-one (1931), as amended, Oil and Gas Conservation Commission as follows:

- 1.) Provided a certified copy of duly acknowledged and recorded consent and easement form from all surface owner; yes
- 2.) Provided a tabulation of all deep wells within one mile of the proposed location, including the Api number of the deep well, well name, and the name and address of the operator, and, \* yes
- 3.) Provided a plat showing that the proposed location is a distance of 420 feet from the nearest unit boundary and showing the following wells drilled to or capable of producing from the objective formation within 3,000 feet of the proposed location:

Sincerely,

*Brett Loflin (cr)*

Brett Loflin  
 Petroleum Engineer

079-00221 - 3175 feet  
 079-00207 - 3015 feet  
 079-00531 - 4750 feet  
 079-00469 - 4361 feet