



1) Date: June 18, 19 84
 2) Operator's Well No. Whitis #4 Well
 3) API Well No. 47 - 001 - 2091
 State County Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OIL AND GAS DIVISION

APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: A Oil XX / Gas XX /
 B (If "Gas", Production XX / Underground storage XX / Deep XX / Shallow XX)
- 5) LOCATION: Elevation: 1942.37 Watershed: Koontz Hollow (MT24C)
 District: Barker County: Barbour Quadrangle: Belington 7.5' (1976)
- 6) WELL OPERATOR Chesterfield Energy Corp. 7) DESIGNATED AGENT Stanley N. Pickens 237
 Address 320 Professional Bldg. Address 320 Professional Bldg.
Clarksburg, WV 26301 Clarksburg, WV 26301
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:
 Name Phillip Tracy RUSSELL BEALL Name Unknown
 Address Forest Festival Terrace, Apt. 24 Address Unknown
Elkins, WV 26241 866-4608
- 10) PROPOSED WELL WORK: Drill X / Drill deeper XX / Redrill XX / Stimulate X /
 Plug off old formation XX / Perforate new formation XX /
 Other physical change in well (specify) _____
- 11) GEOLOGICAL TARGET FORMATION, Alexander
- 12) Estimated depth of completed well, 4500 feet
- 13) Approximate trata depths: Fresh, 354 feet; salt, _____ feet.
- 14) Approximate coal seam depths: 279 Is coal being mined in the area? Yes X / No _____

15) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling		
Conductor	11 3/4	H40	42		X	16'	16'	Kinds
Fresh water								
Coal								Sizes
Intermediate	8 5/8	J55	23	X		1000'	1000'	Circulate <u>to surface NEAR</u> <u>as req. by rule 15.01</u>
Production	4 1/2	J55	10.5	X			4450'	
Tubing								Perforations:
Liners								Top Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-001-2091 Date June 22, 19 84

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. **Notification must be given to the District Oil and Gas Inspector, (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work.** In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.

Permit expires June 22, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
<u>Blanket</u>	<u>MW</u>	<u>MW</u>	<u>MW</u>	<u>3871</u>

[Signature]
Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.

File

RECEIVED
 JUN 21 1984
 OIL & GAS DIVISION
 DEPT. OF MINES



OFFICE USE ONLY

PERMIT MODIFICATIONS AND CONDITIONS (IF ANY) TO THE PROPOSED WELL WORK

1) WELL LOCATION: District: Becket County: Becket Township: Becket Elevation: 1000 Well No.: 1000 Well Name: Becket

2) WELL OPERATOR: Name: Becket Address: Becket

3) OIL & GAS INSPECTOR TO BE NOTIFIED: Name: Becket Address: Becket

4) DRILLING CONTRACTOR: Name: Becket Address: Becket

5) PROPOSED WELL WORK: Drill depth: 1000 ft. Plug off old formation: Perform new formation: Other physical changes in well (specify): Becket

6) GEOLOGICAL TARGET FORMATION: Becket

7) ESTIMATED DEPTH OF COMPLETED WELL: 1000 feet

8) APPROXIMATE STRATA DEPTHS: Fresh: 1000 feet, Salt: 1000 feet

9) APPROXIMATE COAL STRATA DEPTHS: 1000 feet

10) COAL BEING MINED IN THE AREA: Yes No

OFFICE USE ONLY

This part of Form IV-2(b) is to record the dates of certain occurrences and any follow-up inspections.

	Date	Date(s)
Application received		
Well work started		
Completion of the drilling process		
Well Record received		
Reclamation completed		

OTHER INSPECTIONS

Reason: _____

Reason: _____

Inspected	Agent	Plan	Casing	Fee

NOTE: Keep one copy of this permit posted at the drilling location.

1) Date: June 18, 19 84
2) Operator's Well No. Whitis #4 Well
3) API Well No. 47-001-2091
State County Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OFFICE OF OIL & GAS

NOTICE OF APPLICATION FOR A WELL WORK PERMIT

4) SURFACE OWNER(S) OF RECORD TO BE SERVED

(i) Name Robert Whitis
Address c/o Coronado Transmission Corp.
Belington, WV 26250

(ii) Name _____
Address _____

(iii) Name _____
Address _____

5(i) COAL OPERATOR _____
Address _____

5(ii) COAL OWNER(S) WITH DECLARATION ON RECORD
Name _____
Address _____

Name _____
Address _____

5(iii) COAL LESSEE WITH DECLARATION ON RECORD:
Name _____
Address _____

TO THE PERSON(S) NAMED ABOVE: You should have received this Form and the following documents:

- (1) The Application for a Well Work Permit on Form IV-2(B) (or Form IV-4 if the well is to be plugged, which sets out the parties involved in the drilling or other work, and describes the well and its location and, if applicable, the proposed casing and cementing program;
- (2) The plat (surveyor's map) showing the well location on Form IV-6; and
- (3) The Construction and Reclamation Plan on Form IV-9 (unless the well work is only to plug a well), which sets out the plan for erosion and sediment control and for reclamation for the site and access road.

THE REASON YOU RECEIVED THESE DOCUMENTS IS THAT YOU HAVE RIGHTS REGARDING THE APPLICATION WHICH ARE SUMMARIZED IN THE "INSTRUCTIONS" ON THE REVERSE SIDE OF THE COPY OF THE APPLICATION (FORM IV-2(B) OR FORM 4, DESIGNATED FOR YOU. HOWEVER, YOU ARE NOT REQUIRED TO TAKE ANY ACTION AT ALL.

Take notice that under Chapter 22 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a Well Work Permit with the Administrator of the Office of Oil and Gas, West Virginia Department of Mines, with respect to a well at the location described on attached Application and depicted on attached Form IV-6. Copies of this Notice, the Application, the plat, and the Construction and Reclamation Plan have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Administrator.

6) EXTRACTION RIGHTS

Check and provide one of the following:
 Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil or gas.
 The requirement of Code 22-4-1-(c) (1) through (4). (See reverse side for specifics.)

7) ROYALTY PROVISIONS

Is the right to extract, produce or market the oil or gas based upon a lease or leases or other contract or contracts providing for flat well royalty or any similar provision for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes No

If the answer above is No, nothing additional is needed. If the answer is Yes, you may use Affidavit Form IV-60.

See the reverse side for line item instructions, and for instructions concerning the required copies of the Notice and Application, plat, and Construction and Reclamation Plan.

The truth of the information on the Notice and Application is verified and sworn to and the Notice is signed on behalf of the Well Operator in my County and State by Stanley N. Pickens, this 18 day of June, 1984. My commission expires 6/14, 1994.
Brenda L. Hummond
Notary Public, Harrison County, State of West Virginia

WELL OPERATOR Chesterfield Energy Corporation
By Stanley N. Pickens
Its President
Address 320 Professional Building
Clarksburg, WV 26301
Telephone (304) 623-5467

DEPT. OF MINES
OIL & GAS DIVISION
JUN 21 1984
RECEIVED

I N S T R U C T I O N S T O A P P L I C A N T

CONCERNING THE LINE ITEMS:

- 1) Date of Notice.
- 2) Your well name and number.
- 3) To be filled out by the Office of Oil & Gas.
- 4) & 5) Use separate sheet if necessary.
- 4) Surface owner(s) of record to be served with Notice and Application. However, see also Code § 22-4-1b(b) if "more than three tenants in common or other co-owners of interest described in subsection (a) of this section hold interests in such lands".
- 5(i) "Coal Operator" means any person, firm, partnership, partnership association or corporation that proposes to or does operate a coal mine.
- 5(ii, iii) See Code § 22-4-20.
- 6) See Code § 22-4-11(c). However, in lieu of filing the lease(s) or other continuing contract(s), the Applicant may fill out the information in the space provided below.
- 7) See Code § § 22-4-11(d, e).

CONCERNING THE REQUIRED COPIES FOR FILING AND SERVICE:

Filing. Code § 22-4-1k and Regulation 7.02 provide that the original and required copies of the Notice and Application must be filed with the Administrator, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code § 22-4-1k(d) and the reclamation required by Code § 22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fees required by Code § 22-4-1a(c) and 22-3-12a, and (v) if applicable, the consent required by Code § 22-4-8a from the owner of any water well on dwelling within 200 feet of the proposed well.

Service. In addition, service must be made on the surface owner(s) and the person(s) with an interest in the coal. See Code § § 22-4-1m, 22-4-2, 22-4-2a, and 22-4-2b.

INFORMATION SUPPLIED UNDER CODE § 22-4-11(d)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on the obverse side of this Notice, I depose and say that I am the person who signed the Notice for the Applicant, and that--

- (1) the tract of land is the same tract described in the Application to which this Notice applies, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

<u>Grantor, lessor, etc.</u>	<u>Grantee, lessee, etc.</u>	<u>Royalty Book Page</u>
------------------------------	------------------------------	--------------------------

Handwritten signature: Charles A. Johnson

Handwritten signature: [illegible]



1) Date: June 18, 19 84
 2) Operator's Well No. Whitis #4 Well
 3) API Well No. 47 001
 State County Permit

**STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES, OIL AND GAS DIVISION
 APPLICATION FOR A WELL WORK PERMIT**

- 4) WELL TYPE: A Oil XX / Gas XX /
 B (If "Gas", Production XX / Underground storage XX / Deep XX / Shallow XX /)
- 5) LOCATION: Elevation: 1942.37 Watershed: Koontz Hollow
 District: Barker County: Barbour Quadrangle: Bellington 7.5' (1976)
- 6) WELL OPERATOR Chesterfield Energy Corp. 7) DESIGNATED AGENT Stanley N. Pickens
 Address 320 Professional Bldg. Address 320 Professional Bldg.
Clarksburg, WV 26301 Clarksburg, WV 26301
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:
 Name Philip Tracy Name Unknown
 Address Forest Festival Terrace, Apt. 24 Address Unknown
Elkins, WV 26241
- 10) PROPOSED WELL WORK: Drill X / Drill deeper XX / Redrill XX / Stimulate XX /
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- 15) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor	<u>11 3/4</u>	<u>H40</u>	<u>42</u>		<u>X</u>	<u>16'</u>	<u>16'</u>		Kinds
Fresh water									Sizes
Coal									Depths set
Intermediate	<u>8 5/8</u>	<u>J45</u>	<u>28</u>	<u>X</u>		<u>1000'</u>	<u>1000'</u>	<u>Circulate</u>	Perforations:
Production	<u>4 1/2</u>	<u>J45</u>	<u>10.5</u>	<u>X</u>			<u>4450'</u>		Top
Tubing									Bottom
Liners									

The law requires a comment period for surface owners. However, the permit can be issued in less than 15 days from the filing of the Application if the surface owner(s) of record sign(s) the following "Voluntary Statement of No Objection" on a facsimile of this surface owner's copy of the Application.

VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners on the reverse side of this Application for a Well Work Permit, and that I have received copies of (1) a Notice of Application for a Well Work Permit on Form IV-2(A), (2) an Application for a Well Work Permit on Form IV-2(B), (3) a survey plat on Form IV-6, and (4) a Construction and Reclamation Plan on Form IV-9, all for proposed well work on my surface land as described therein.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued based on those materials.

(For execution by corporation, partnership, etc.)

NAME: _____
 By _____
 Its _____ Date _____

(For execution by natural persons)

Robert B. Whitis Date: _____
 (Signature)
 _____ Date: _____
 (Signature)

**INSTRUCTIONS TO SURFACE OWNERS
AND
EXPLANATION OF METHODS AND TIME LIMITS TO COMMENT
ON OIL AND GAS WELL WORK PERMIT**

The well operator named in the Notice and this Application and the attached materials is applying for a permit from the State to do oil or gas well drilling or other well work. You are being served with these materials because surface owners have the right to file comments before the permit is issued. (NOTE: If the surface tract is owned by more than three persons, in multiple heirship for example, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22, Article 4 of the W. Va. Code. Permits are valid for 24 months.

If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator named in the materials and the Administrator of the Office of Oil and Gas in the West Virginia Department of Mines immediately.

NOTE: You are not required to file any comment at all.

Where to file comments and obtain additional information:

Administrator of the Office of Oil and Gas
West Virginia Department of Mines
1615 Washington Street East
Charleston, West Virginia 25311
(304) 348-2057

Who may file comments? If you wish to file comments, you must be an owner of record of (1) an interest in the surface tract on which the well already is or is about to be located, or (2) an interest in any other surface tract under the same oil or gas lease which will be utilized for roads or other land disturbances.

Time limits for comments. The law requires these materials to be delivered on or before the date the operator files his Application. You have **FIFTEEN (15) DAYS** after the filing date to file your comments as provided in **Methods for Filing Comments** below. You may call the Administrator's office at the above telephone number to be sure of the date. However, if you have been contacted by the well operator, and if you have signed a "voluntary statement of no objection" to any of the planned work described in these materials, then the permit may be issued at any time.

Comments must be in writing. Your comments must include your name, address and telephone number, the well operator's name and well number, and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Methods for filing comments. Comments must be filed in person or received in the mail at the Administrator's office by the time stated above. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling.

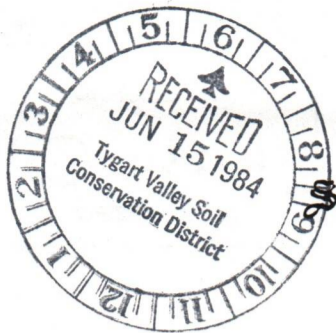
The Administrator for Oil and Gas has the power to deny or condition a well work permit based on your comments on the following grounds:

- “(1) The proposed well work will constitute a hazard to the safety of persons; or
- “(2) The plan for soil erosion and sediment control is not adequate or effective; or
- “(3) Damage would occur to publicly owned lands or resources; or
- “(4) The proposed well work fails to protect fresh water sources or supplies.”

If you want a copy of the permit as it is finally issued, or a copy of the order denying the permit, you should request a copy from the Administrator.

List of Water Testing Laboratories. The Administrator maintains a list of water testing laboratories which you can hire to test your water to establish water quality prior to and after drilling. Contact the Administrator's office or an Oil and Gas Inspector to obtain a copy of the list.

IV-9
(Rev 8-81)



State of West Virginia
Department of Mines
Oil and Gas Division

DATE June 13, 1984
WELL NO. Whitis No. 4
API NO. 47 - 001-2091

CONSTRUCTION AND RECLAMATION PLAN

COMPANY NAME Chesterfield Energy Corp.
Address 319-320 Professional Bldg. Clarksburg, WV 26301
Telephone (304) 623-5467

DESIGNATED AGENT Stanley N. Pickens
Address 319-320 Professional Bldg. Clarksburg, WV 26301
Telephone (304) 623-5467

LANDOWNER Bob Whitis
Revegetation to be carried out by Stanley N. Pickens

SOIL CONS. DISTRICT Tygarts Valley
(Agent)

This plan has been reviewed by Tygarts Valley SCD. All corrections and additions become a part of this plan:

6/17/84
(Date)
Jean Freeman
(SCD Agent)

ACCESS ROAD	LOCATION
Structure <u>Drainage Ditch</u> (A) Along Access Road Spacing <u>Inside Road Cuts</u> Page Ref. Manual <u>2-12 to 2-14</u>	Structure <u>Diversion Ditch</u> (1) Material <u>Earth</u> Page Ref. Manual <u>2-12 to 2-13</u>
Structure <u>Cross Drains</u> (B) Spacing <u>As Noted On Sketch</u> Page Ref. Manual <u>2-1 to 2-6</u>	Structure _____ (2) Material _____ Page Ref. Manual _____
Structure <u>Culvert</u> (C) Spacing <u>12" Min. Steel</u> Page Ref. Manual <u>2-6 to 2-11</u>	Structure _____ (3) Material _____ Page Ref. Manual _____

All structures should be inspected regularly and repaired if necessary. All commercial timber is to be cut and stacked and all brush and small timber to be cut and removed from the site before dirt work begins.

REVEGETATION

Treatment Area I

Lime	<u>3.0 Tons/acre</u>
or correct to pH	<u>6.5</u>
Fertilizer	<u>600 lbs/acre</u>
(10-20-20 or equivalent)	
Mulch Hay or Straw	<u>2.0 Tons/acre</u>
Seed* Ky 31 Tall Fescue	<u>40 lbs/acre</u>
Birdsfoot Trefoil	<u>10 lbs/acre</u>
Dom Rye Grass	<u>10 lbs/acre</u>

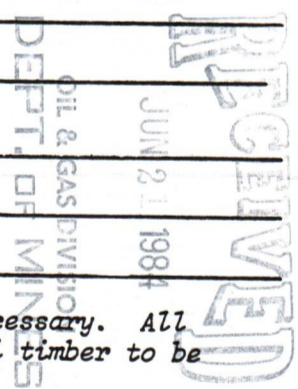
Treatment Area II

Lime	<u>3.0 Tons/acre</u>
or correct to pH	<u>6.5</u>
Fertilizer	<u>600 lbs/acre</u>
(10-20-20 or equivalent)	
Mulch Hay or Straw	<u>2.0 Tons/acre</u>
Seed* Ky 31 Tall Fescue	<u>40 lbs/acre</u>
Birdsfoot Trefoil	<u>10 lbs/acre</u>
Dom Rye Grass	<u>10 lbs/acre</u>

*Inoculate all legumes such as vetch, trefoil and clovers with the proper bacterium. Inoculate with 3X recommended amount.

NOTES: Please request landowner's cooperation to protect new seeding for one growing season. Attach separate sheets as necessary for comments.

PLAN PREPARED BY MSES Consultants
ADDRESS 609 West Main Street
Clarksburg, WV 26301
PHONE NO. (304) 624-9700, 842-3325



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

Haverty & Fox 500 gal., 15% HCL; 480 BBLs Sand Laden Fluid
26,000# 20/40

Benson & Alexander 500 gal., 15% HCL; 432 BBLs Sand Laden Fluid
30,000# 20/40

Speechley 500 gal., 15% HCL; 495 BBLs Sand Laden Fluid
40,000# 20/40

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
			0	20	Soap pump on hole @ 62'
			20	30	1/2" stream water
998			30	34	
			34	138	
			138	210	
998			210	218	
			218	442	
			442	473	
			473	530	
998			530	535	Gas Ck @ 1877' No Show
			535	630	Gas Ck @ 1971' No Show
			630	785	Gas Ck @ 2595' No Show
			785	1253	Gas Ck @ 2688' No Show
			1253	1473	Gas Ck @ 2812' Slight Odor
			1473	1567	Gas Ck @ 3000' No Show
			1567	1582	Gas Ck @ 3251' No Show
345			1582	1684	Gas Ck @ 3408' 10/10-1" w/w
365			1684	1826	Gas Ck @ 3658' 18/10-1" w/w
			1826	2508	Gas Ck @ 3969' 14/10-1" w/w
			2508	2636	Gas Ck @ 4062' 14/10-1" w/w
425			2636	2742	Gas Ck @ 4435' 16/10-1" w/w
			2742	2775	Gas Ck @ 4685' 30/10-1" w/w
			2775	3102	Gas Ck @ 4809' 20/10-1" w/w
432			3102	3120	Gas Ck @ 5307' 24/10-1" w/w
			3120	3312	Gas Ck @ 5462' 22/10-1" w/w
433			3312	3326	Gas Ck @ 5555' 20/10-1" w/w
			3326	4044	
435			4044	4068	
			4068	4352	
			4352	4378	
			4378	4546	
			4546	4550	
437			4550	5324	
			5324	5328	
			5328	5574	
			5574		

(Attach separate sheets as necessary)

Chesterfield Energy Corporation

Well Operator

By:

Stanley N. Pickens

Date:

July 30, 1984

Note: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including ... encountered in the drilling of a well."



RECEIVED
AUG - 1 1984

State of West Virginia
Department of Mines
Oil and Gas Division

Date July 30, 1984
Operator's
Well No. Whitis #4 Well
Farm _____
API No. 47 - 001 - 2091

OIL & GAS DIVISION
DEPT. OF MINES
WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil ___ / Gas XX / Liquid Injection ___ / Waste Disposal ___ /
(If "Gas," Production XX / Underground Storage ___ / Deep ___ / Shallow ___ /)

LOCATION: Elevation: 1942.37' Watershed Koontz Hollow
District: Barker County Barbour Quadrangle Belington 7.5'

COMPANY Chesterfield Energy Corporation
ADDRESS 320 Professional Building, Clarksburg, WV 26301
DESIGNATED AGENT Stanley N. Pickens, President
ADDRESS 320 Professional Building, Clarksburg, WV 26301
SURFACE OWNER Robert Whitis
ADDRESS c/o Coronado Trans. Corp., Belington, WV 26250
MINERAL RIGHTS OWNER Robert Whitis
ADDRESS c/o Coronado Trans. Corp., Belington, WV 26250
OIL AND GAS INSPECTOR FOR THIS WORK Russell Beall ADDRESS P.O.Box 160, Philippi, WV 26416
PERMIT ISSUED June 22, 1984
DRILLING COMMENCED July 17, 1984
DRILLING COMPLETED July 22, 1984

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
11 3/4 <u>11 3/4 G</u>	16'	pulled	
9 5/8			
8 5/8 <u>J</u>	1214'	1214'	285 sks
7			
5 1/2			
4 1/2 <u>Q</u>		5496'	555 sks
3			
2			
Liners used			

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON _____

GEOLOGICAL TARGET FORMATION Speechley Haverty, Fox, Benson, Alexander Depth _____ feet
Depth of completed well 5574' feet Rotary XX / Cable Tools _____
Water strata depth: Fresh 62' feet; Salt _____ feet
Coal seam depths: 30'-34', 210'-218', 530'-535' Is coal being mined in the area? _____

OPEN FLOW DATA
Producing formation Haverty, Fox Pay zone depth 5315'-5327' 7 holes
437 5482'-5483' 3 holes
Gas: Initial open flow 47.13 Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow 450 Mcf/d Oil: Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ hours
Static rock pressure 1000 psig (surface measurement) after _____ hours shut in
(If applicable due to multiple completion--)
Second producing formation Benson, Alexander Pay zone depth 4050'-4054' 5 holes
433 4360'-4364' 5 "feet
Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Bbl/d
"COMMINGLED WITH FIRST STAGE"
Final open flow _____ Mcf/d Oil: Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ hours
Static rock pressure _____ psig (surface measurement) after _____ hours shut in
Third Pro. Formation Speechley Pay Zone Depth 3107'-3112' 12 holes
437 (Continue on reverse side)

BAR 2091

RECEIVED

JUL 20 1984

STATE OF WEST VIRGINIA

DEPARTMENT OF MINES

OIL AND GAS WELLS DIVISION

OIL & GAS DIVISION

DEPT. OF MINES

INSPECTOR'S WELL REPORT

Permit No. 001-2091

Oil or Gas Well _____
(KIND)

Company	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
				Kind of Packer
<u>Chesterfield</u>	Size			
Address	16			Kind of Packer
Farm <u>Whit's #4</u>	13			
Well No.	10			Size of
District _____ County <u>001</u>	8 1/4			
Drilling commenced	6 5/8			Depth set
Drilling completed _____ Total depth _____	5 3/16			
Date shot _____ Depth of shot _____	3			Perf. top
Initial open flow _____ /10ths Water in _____ Inch	2			Perf. bottom
Open flow after tubing _____ /10ths Merc. in _____ Inch	Liners Used			Perf. top
Volume _____ Cu. Ft.				Perf. bottom
Rock pressure _____ lbs. _____ hrs.	CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____			
Oil _____ bbls., 1st 24 hrs.	NAME OF SERVICE COMPANY _____			
Fresh water _____ feet _____ feet	COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES			
Salt water _____ feet _____ feet	_____ FEET _____ INCHES	_____ FEET _____ INCHES	_____ FEET _____ INCHES	_____ FEET _____ INCHES

Drillers' Names Union #15

Remarks: Dug at 7:38 - 2:0

7/18/84
DATE

R.G. Beall 501
DISTRICT WELL INSPECTOR

**STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS WELLS DIVISION
INSPECTOR'S PLUGGING REPORT**

Permit No. _____

Well No. _____

COMPANY _____ ADDRESS _____

FARM _____ DISTRICT _____ COUNTY _____

Filling Material Used _____

Liner	Location	Amount	Packer	Location		
PLUGS USED AND DEPTH PLACED			BRIDGES	CASING AND TUBING		
CEMENT-THICKNESS	WOOD-SIZE	LEAD	CONSTRUCTION-LOCATION	RECOVERED	SIZE	LOST

Drillers' Names _____

Remarks:

_____ I hereby certify I visited the above well on this date.

DATE

DISTRICT WELL INSPECTOR

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS WELLS DIVISION

RECEIVED

JUL 23 1984

OIL & GAS DIVISION
DEPT. OF MINES

INSPECTOR'S WELL REPORT

Permit No. 001-2091

Oil or Gas Well _____
(KIND)

Company Chesterfield

Address _____

Farm Whit's #4

Well No. _____

District Barren County 001

Drilling commenced 7/17/84

Drilling completed _____ Total depth _____

Date shot _____ Depth of shot _____

Initial open flow _____ /10ths Water in _____ Inch

Open flow after tubing _____ /10ths Merc. in _____ Inch

Volume _____ Cu. Ft.

Rock pressure _____ lbs. _____ hrs.

Oil _____ bbls., 1st 24 hrs.

Fresh water _____ feet _____ feet

Salt water _____ feet _____ feet

CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Size			
16			Kind of Packer _____
13			
10			Size of _____
8 5/8	1204	1204	
6 5/8			Depth set _____
5 3/16			
3			Perf. top _____
2			Perf. bottom _____
Liners Used			Perf. top _____
			Perf. bottom _____

CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____

NAME OF SERVICE COMPANY _____

COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES

_____ FEET _____ INCHES FEET _____ INCHES

_____ FEET _____ INCHES FEET _____ INCHES

Drillers' Names Union #15 Reg

Remarks: Dug @ 2100'

7/24/84 R G Beace
DATE

DISTRICT WELL INSPECTOR

**STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS WELLS DIVISION
INSPECTOR'S PLUGGING REPORT**

Permit No. _____ Well No. _____

COMPANY _____ ADDRESS _____

FARM _____ DISTRICT _____ COUNTY _____

Filling Material Used _____

Liner	Location	Amount	Packer	Location		
PLUGS USED AND DEPTH PLACED			BRIDGES	CASING AND TUBING		
CEMENT-THICKNESS	WOOD-SIZE	LEAD	CONSTRUCTION-LOCATION	RECOVERED	SIZE	LOST

Drillers' Names _____

Remarks:

_____ I hereby certify I visited the above well on this date.
DATE

DISTRICT WELL INSPECTOR

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS WELLS DIVISION

RECEIVED

JUL 25 1984

INSPECTOR'S WELL REPORT

OIL & GAS DIVISION
DEPT. OF MINES
Oil or Gas Well (KIND)

Permit No. 00F-2091

Company	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
<u>Chesterfield</u>	Size			
Address	16			Kind of Packer
Farm <u>White</u>	13			
Well No. <u>#4</u>	10			Size of <u>285 SAC</u>
District <u>Barren</u> County <u>Barbour</u>	8 ³ / ₈ - 1204 - 1204			Depth set <u>555 SAC</u>
Drilling commenced <u>7/17/84</u>	6%			
Drilling completed <u>7/23</u> Total depth <u>555-5</u>	5 3/16 <u>4 1/2 - 5491</u>		<u>5491</u>	
Date shot _____ Depth of shot _____	3			Perf. top _____
Initial open flow _____ /10ths Water in _____ Inch	2			Perf. bottom _____
Open flow after tubing _____ /10ths Merc. in _____ Inch	Liners Used _____			Perf. top _____
Volume _____ Cu. Ft.				Perf. bottom _____
Rock pressure _____ lbs. _____ hrs.	CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____			
Oil _____ bbls., 1st 24 hrs.	NAME OF SERVICE COMPANY _____			
Fresh water _____ feet _____ feet	COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES			
Salt water _____ feet _____ feet	_____ FEET _____ INCHES _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			

Drillers' Names Union Rig #15

Remarks: T.D. - Log - Ran 4 1/2 - Rig off

7/23/84
DATE

26 Beale
DISTRICT WELL INSPECTOR

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS WELLS DIVISION
INSPECTOR'S PLUGGING REPORT

Permit No. _____ Well No. _____

COMPANY _____ ADDRESS _____

FARM _____ DISTRICT _____ COUNTY _____

Filling Material Used _____

Liner			Packer			
Location			Location			
PLUGS USED AND DEPTH PLACED			BRIDGES	CASING AND TUBING		
CEMENT-THICKNESS	WOOD-SIZE	LEAD	CONSTRUCTION-LOCATION	RECOVERED	SIZE	LOST

Drillers' Names _____

Remarks:

_____ I hereby certify I visited the above well on this date.
DATE

DISTRICT WELL INSPECTOR

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS WELLS DIVISION

RECEIVED

JUL 30 1984

OIL & GAS DIVISION
DEPT. OF MINES
INSPECTOR'S WELL REPORT

Permit No. 001-2091

Oil or Gas Well _____
(KIND)

Company	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
<u>Chestnut Gap</u>	Size			
Address _____	16			Kind of Packer _____
Farm <u>White's #4</u>	13			
Well No. _____	10			Size of _____
District _____ County <u>BARBOUR</u>	8 1/4			
Drilling commenced _____	6 3/8			Depth set _____
Drilling completed _____ Total depth _____	5 3/16			
Date shot _____ Depth of shot _____	3			Perf. top _____
Initial open flow _____ /10ths Water in _____ Inch	2			Perf. bottom _____
Open flow after tubing _____ /10ths Merc. in _____ Inch	Liners Used			Perf. top _____
Volume _____ Cu. Ft.				Perf. bottom _____
Rock pressure _____ lbs. _____ hrs.	CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____			
Oil _____ bbls., 1st 24 hrs.	NAME OF SERVICE COMPANY _____			
Fresh water _____ feet _____ feet	COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES			
Salt water _____ feet _____ feet	_____ FEET _____ INCHES _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			

Drillers' Names _____

Remarks: TRACR - Check Rec plan for proper Road drainage

7/26/84
DATE

RE Bease
DISTRICT WELL INSPECTOR

RECEIVED

**STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS WELLS DIVISION**

INSPECTOR'S PLUGGING REPORT

Permit No. _____

Well No. _____

COMPANY _____ ADDRESS _____

FARM _____ DISTRICT _____ COUNTY _____

Filling Material Used _____

Liner	Location		Amount	Packer	Location		
	CEMENT-THICKNESS	WOOD-SIZE			RECOVERED	SIZE	LOST
	PLUGS USED AND DEPTH PLACED				BRIDGES		
					CASING AND TUBING		

Drillers' Names _____

Remarks: _____

_____ I hereby certify I visited the above well on this date.

DATE

DISTRICT WELL INSPECTOR

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS WELLS DIVISION

RECEIVED
NOV 27 1984

OIL & GAS DIVISION

DEPT. OF MINES

INSPECTOR'S WELL REPORT

Permit No. 001-2191

Oil or Gas Well _____
(KIND)

Company <u>CHESTERFIELD ENGY</u> Address <u>CLARKSBURG WV</u> Farm <u>MOATS</u> Well No. <u>1</u> District <u>COVE</u> County <u>BARBOUR</u> Drilling commenced <u>11-20-84</u> Drilling completed _____ Total depth _____ Date shot _____ Depth of shot _____ Initial open flow _____ /10ths Water in _____ Inch Open flow after tubing _____ /10ths Merc. in _____ Inch Volume _____ Cu. Ft. Rock pressure _____ lbs. _____ hrs. Oil _____ bbls., 1st 24 hrs. Fresh water _____ feet _____ feet Salt water _____ feet _____ feet	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
	Size			Kind of Packer _____
	16			
	13			
	10			Size of _____
	8 1/4			
	6 5/8			Depth set _____
	5 3/16			
	3			Perf. top _____
	2			Perf. bottom _____
Liners Used			Perf. top _____	
			Perf. bottom _____	

CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____

NAME OF SERVICE COMPANY _____

COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES

_____ FEET _____ INCHES _____ FEET _____ INCHES

_____ FEET _____ INCHES _____ FEET _____ INCHES

Drillers' Names Union #15

Remarks: SPUD

11-20-84
DATE

[Signature]
DISTRICT WELL INSPECTOR

Form 26
2/16/82

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS WELLS DIVISION

INSPECTOR'S PLUGGING REPORT

Permit No. _____

Well No. _____

COMPANY _____ ADDRESS _____

FARM _____ DISTRICT _____ COUNTY _____

Filling Material Used _____

Liner		Location		Amount	Packer	Location		
PLUGS USED AND DEPTH PLACED			BRIDGES			CASING AND TUBING		
CEMENT-THICKNESS	WOOD-SIZE	LEAD	CONSTRUCTION-LOCATION		RECOVERED	SIZE	LOST	

Drillers' Names _____

Remarks: _____

DATE I hereby certify I visited the above well on this date.

DISTRICT WELL INSPECTOR

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS WELLS DIVISION

RECEIVED
NOV 27 1984

OIL & GAS DIVISION
DEPT. OF MINES

INSPECTOR'S WELL REPORT

Permit No. 001-2191

Oil or Gas Well _____
(KIND)

Company CHESTERFIELD ENGY
 Address CLARKSBURG WV
 Farm MOATS
 Well No. 1
 District COVF County BARBOUR
 Drilling commenced 11-20-84
 Drilling completed _____ Total depth _____
 Date shot _____ Depth of shot _____
 Initial open flow _____ /10ths Water in _____ Inch
 Open flow after tubing _____ /10ths Merc. in _____ Inch
 Volume _____ Cu. Ft.
 Rock pressure _____ lbs. _____ hrs.
 Oil _____ bbls., 1st 24 hrs.
 Fresh water _____ feet _____ feet
 Salt water _____ feet _____ feet

CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Size			
16			Kind of Packer _____
13			
10			Size of _____
8 3/4	1127	1127	
6 3/4			Depth set _____
5 3/16			
3			Perf. top _____
2			Perf. bottom _____
Liners Used			Perf. top _____
			Perf. bottom _____

CASING CEMENTED 8 3/4 SIZE 1127 No. FT. 11-21-84 Date
 NAME OF SERVICE COMPANY Nowsec.
 COAL WAS ENCOUNTERED AT 155 FEET TO 159 FT INCHES
 _____ FEET _____ INCHES FEET _____ INCHES
 _____ FEET _____ INCHES FEET _____ INCHES

Drillers' Names Union #15

Remarks 2 90sh Rev 3% C.C. 1 Basket 40' 160 IDE SHOE

11-21-84
DATE

Ronald Ellis
DISTRICT WELL INSPECTOR

Form 26
2/16/82

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS WELLS DIVISION

INSPECTOR'S PLUGGING REPORT

Permit No. _____

Well No. _____

COMPANY _____ ADDRESS _____

FARM _____ DISTRICT _____ COUNTY _____

Filling Material Used _____

Liner			Location	Amount	Packer	Location		
PLUGS USED AND DEPTH PLACED			BRIDGES			CASING AND TUBING		
CEMENT-THICKNESS	WOOD-SIZE	LEAD	CONSTRUCTION-LOCATION		RECOVERED	SIZE	LOST	

Drillers' Names _____

Remarks: _____

_____ I hereby certify I visited the above well on this date.
DATE _____
_____ DISTRICT WELL INSPECTOR



RECEIVED
SEP 26 1984
OIL & GAS DIVISION
DEPT. OF MINES

State of West Virginia
Department of Mines
Oil and Gas Division
Charleston 25305

FINAL INSPECTION REPORT
INSPECTORS COMPLIANCE REPORT

COMPANY CHESTERFIELD CORP

CLARKSBURG

PERMIT NO 001-2091
FARM & WELL NO WH.T.S #4
DIST. & COUNTY BARBOUR

RULE	DESCRIPTION	IN COMPLIANCE	
		YES	NO
23.06	Notification Prior to Starting Work		
25.04	Prepared before Drilling to Prevent Waste		
25.03	High-Pressure Drilling		
16.01	Required Permits at Wellsite		
15.03	Adequate Fresh Water Casing		
15.02	Adequate Coal Casing		
15.01	Adequate Production Casing		
15.04	Adequate Cement Strenght		
15.05	Cement Type		
23.02	Maintained Access Roads		
25.01	Necessary Equipment to Prevent Waste		
23.04	Reclaimed Drilling Pits		
23.05	No Surface or Underground Pollution		
23.07	Requirements for Production & Gathering Pipelines		
16.01	Well Records on Site		
16.02	Well Records Filed		
7.05	Identification Markings		

I HAVE INSPECTED THE ABOVE CAPTIONED WELL AND RECOMMEND THAT IT BE RELEASED:

SIGNED Robert Stewart
DATE 9-24-84

Your well record was received and reclamation requirements approved. In accordance with Chapter 22, Article 4, Section 2, the above well will remain under bond coverage for the life of the well.

T. H. ...
Administrator-Oil & Gas Division

December 17, 1984
DATE

TMS/nw

	<u>JULY 30, 1984</u> Date Application is Completed	<u>(304) 623-5467</u> Phone Number
--	---	---------------------------------------

TIME	DURATION OF RAIN (H)	REMARKS
0800	1.5	Light rain
0900	2.0	Moderate rain
1000	1.0	Light rain
1100	3.0	Heavy rain
1200	1.5	Light rain
1300	2.5	Moderate rain
1400	1.5	Light rain

JUL 15 1981

DEPARTMENT OF MINES OIL AND GAS DIVISION

Operator's
Well No. Whitis #4 Well

API Well No.

47 - 001 - 2091
State County Permit

WELL CLASSIFICATION FORM

HIGH COST GAS WELL - DEVONIAN SHALE
NGPA Section 107

DESIGNATED AGENT Samuel J. Cann, VP Land & Contr

ADDRESS 320 Professional Building
Clarksburg, WV 26301

LOCATION Elevation 1942.37'

Watershed Koontz Hollow

WELL OPERATOR Chesterfield Energy Corp.

ADDRESS 320 Professional Building
Clarksburg, WV 26301

Dist. Barker County Barbour Quad. Belington 7.5

Gas Purchase
Contract No. 1481

GAS PURCHASER Tenneco Attn: Kathy Schooley

ADDRESS P. O. Box 2511
Houston, TX 77001

Meter Chart Code N/A

Date of Contract April 19, 1984

* * * * *

Date surface drilling began: July 17, 1984

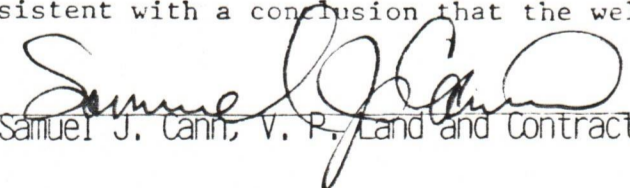
Indicate the bottom hole pressure of the well and explain how this was calculated.

$BHP = P1 + P1 (e^X - 1)$

P1 = 1000
G = .68
T = 575
X = $GL/53.34T$
BHP = 1084.90

AFFIDAVIT

I, Samuel J. Cann, having been first sworn according to law, state that I have calculated the percentage of footage of the producing interval which is not Devonian Shale as indicated by a Gamma Ray index of less than 0.7 if a Gamma Ray log described in subparagraph (3)(i) or (3)(ii)(A) has been filed, or as indicated by the report described in subparagraph (3)(ii)(B); I have demonstrated that the percentage of potentially disqualifying non-shale footage is equal to or less than five (5) percent of the gross Devonian age interval; and I have no knowledge of any information not described in the application which is inconsistent with a conclusion that the well qualifies as a high-cost natural gas well.


Samuel J. Cann, V. P. Land and Contracts

STATE OF WEST VIRGINIA

COUNTY OF Harrison, TO-WIT:

I, Brenda Drummond, a Notary Public in and for the state and county aforesaid, do certify that Samuel J. Cann, whose name is signed to the writing above, bearing date the 30 day of July, 19 84, has acknowledged the same before me, in my county aforesaid.

Given under my hand and official seal this 30 day of July, 19 84.

My term of office expires on the 14th day of June, 19 94.


Notary Public

(NOTARIAL SEAL)

STATE OF WEST VIRGINIA

DEPARTMENT OF MINES, OIL AND GAS DIVISION

AUG 16 1984

COVER SHEET, STATE APPLICATION FOR WELL CLASSIFICATION

Date: July 30, 1984

Applicant's Name: Chesterfield Energy Corporation

Address: 320 Professional Building
Clarksburg, WV 26301

Gas Purchaser Contract No. 1481

Date of Contract April 19, 1984
(Month, day and year)

First Purchaser: Tenneco Attn: Kathy Schooley

Address: P. O. Box 2511
(Street or P.O. Box)
Houston, TX 77001
(City) (State) (Zip Code)

FERC Seller Code 003449

AGENCY USE ONLY

WELL DETERMINATION FILE NUMBER

840731-107-001-2091

Use Above File Number on all
Communications Relating to This Well

Designated Agent: Samuel J. Cann

Address: 320 Professional Building
Clarksburg, WV 26301

FERC Buyer Code -

NAME AND TITLE OF PERSON TO WHOM QUESTIONS CONCERNING THIS APPLICATION SHALL
BE ADDRESSED:

Name: Samuel J. Cann (Print) Vice President Land & Contracts (Title)

Signature: *Samuel J. Cann*

Address: 320 Professional Building
(Street or P.O. Box)
Clarksburg, WV 26301
(City) (State) (Zip Code)

Telephone: (304) 623-5467
(Area Code) (Phone Number)

(Certificate of Proof of Service to Purchaser)

NGPA Category Applied For

NGPA SECTION/SUBSECTION

- 102 New Natural Gas
- 102-2 2.5 Mile Test
- 102-3 1000 Foot Deeper Test
- 102-4 New Onshore Reservoir

- 103 New Onshore Production Well
- 103 New Onshore Production Well

- 107 High Cost Natural Gas
- 107-0 Deep (more than 15,000 feet)
- 107-1 Geopressured Brine
- 107-2 Coal Seams
- XX 107-3 Devonian Shale
- 107-5 Production enhancement
- 107-6 New Tight Formation
- 107-7 Recompletion Tight Formation

- 108 Stripper Well Natural Gas
- 108- Stripper Well
- 108-1 Seasonally Affected
- 108-2 Enhanced Recovery
- 108-3 Temporary Pressure Buildup

AGENCY USE ONLY

QUALIFIED

JUL 31 1984

Date Received

AUG 16 1984

Determination Date

Date: July 30, 1984

Operator's Well No. Whitis #4 Well

API Well No. 47 - 001 - 2091
State County Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OIL AND GAS DIVISION

WELL OPERATOR'S REPORT
OF
INITIAL GAS-OIL RATIO TEST

WELL OPERATOR Chesterfield Energy Corporation
Address 320 Professional Building
Clarksburg, WV 26301

DESIGNATED AGENT Samuel J. Cann
Address 320 Professional Building
Clarksburg, WV 26301

GEOLOGICAL TARGET FORMATION: Haverty, Fox, Benson, Alexander, Speechley Depth 5574' TD feet
Perforation Interval N/A feet

GUIDELINES FOR TESTING:

- 1- A minimum of gas vented or flared
- 2- A 24 hour preflow into pipelines or tanks
- 3- Uniform producing rate during the 24 hour test per test period
- 4- Measurement standards as for Form IV-39, "Report of Annual Production" (see Regulation 21.01)
- 5- Separate Form IV-36 for each producing formation in a multiple completion

TEST DATA				
START OF TEST-DATE	TIME	END OF TEST-DATE	TIME	DURATION OF TEST
TUBING PRESSURE	CASING PRESSURE	SEPARATOR PRESSURE	SEPARATOR TEMPERATURE	
OIL PRODUCTION DURING TEST bbls.	GAS PRODUCTION DURING TEST Mcf	WATER PRODUCTION DURING TEST & SALINITY bbls.		ppm.
OIL GRAVITY °API	PRODUCING METHOD (Flowing, pumping, gas lift, etc.)			

GAS PRODUCTION			
MEASUREMENT METHOD		POSITIVE CHOKE	
FLANGE TAP <input type="checkbox"/>	PIPE TAP <input type="checkbox"/>	L-10 <input type="checkbox"/>	CRITICAL FLOW PROVER <input type="checkbox"/>
ORIFICE DIAMETER	PIPE DIAMETER (INSIDE DIAM.)	NOMINAL CHOKE SIZE - IN.	
DIFFERENTIAL PRESSURE RANGE	MAX. STATIC PRESSURE RANGE	PROVER & ORIFICE DIAM. - IN.	
DIFFERENTIAL	STATIC	GAS GRAVITY (Air-1.0) MEASURED _____ ESTIMATED _____	
GAS GRAVITY (Air-1.0)	FLOWING TEMPERATURE	GAS TEMPERATURE _____ °F	
24 HOUR COEFFICIENT	24 HOUR COEFFICIENT <u>48 hrs.</u>		
		PRESSURE - <u>1000</u> psia	

TEST RESULTS			
DAILY OIL <u>-0-</u> bbls.	DAILY WATER <u>-0-</u> bbls.	DAILY GAS <u>450</u> Mcf.	GAS-OIL RATIO <u>Infinity</u> SCF/STB

Chesterfield Energy Corporation
Well Operator
By: Samuel J. Cann
Its: Vice President Land and Contracts

DEVONIAN SHALE GAMMA RAY LOG ANALYSIS
APPLICATION FOR DETERMINATION OF THE MAXIMUM LAWFUL
PRICE UNDER THE NATURAL GAS POLICY ACT

Operator: Chesterfield Energy Corporation Agent: Samuel J. Cann

Type Determination being sought - 107 (Devonian Shale)

API Well No.: 47-001-2091 Well Name: Whitis #4 Well

West Virginia Office of Oil and Gas County: Barbour
 References: SJA File No.

Vol. _____ Page _____ Line _____

I. NOTE: A Gamma Ray Log has been marked with the (a) Shale Base Line, (b) a line representing 0.7 x (Shale Base Line), (c) intervals with Gamma Ray units less than 0.7 x (Shale Base Line) and that log is included with this analysis.

II. Gamma Ray elevation indices:

A. Shale Base Line (API Units)

1. GR Value at Base Line = 160 *API Units
2. Remarks:

B. Gamma Ray Log Value at 0.7 x Value at Base Line

1. GR Value = 160 *API Units
2. Calculation: $\frac{0.7 \text{ (GR Value at Base Line)}}{0.7 \text{ (} \underline{160} \text{ *)}} = \underline{112}$ API Units

III. Intervals with GR index less than 0.7 x (Value at Base Line):

Interval		Thickness of Interval Feet	Feet of less than* 0.7 (Shale Base Line) Feet
From**	To***		
2054	2500	446	55
2500	3000	500	77
3000	4000	1000	24
4000	5000	1000	6
5000	5574	574	0

Total Devonian Interval 3520

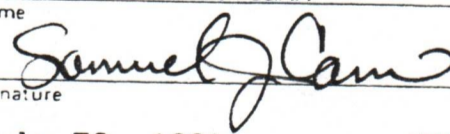
Total Less Than 0.7 (Shale Base) 162

% Less Than 0.7 (Shale Base Line) = $\frac{162}{3520} \times 100 = \underline{4.60}$ %

*Marked on log included with analysis.

**Top of Devonian Section Recorded on First Interval in this Column.

***Lesser of TD or Bottom of Devonian Section Recorded as last Interval in this Column.

1.0 API well number: (If not available, leave blank. 14 digits.)	47-001-2091										
2.0 Type of determination being sought: (Use the codes found on the front of this form!)	103 Section of NGPA										
3.0 Depth of the deepest completion location: (Only needed if sections 103 or 107 in 2.0 above.)	5574 feet										
4.0 Name, address and code number of applicant: (35 letters per line maximum. If code number not available, leave blank.)	Chesterfield Energy Corporation Name 320 Professional Building Street Clarksburg City WV State 26301 Zip Code										
5.0 Location of this well: [Complete (a) or (b).] (a) For onshore wells (35 letters maximum for field name.)	Whitis #4 Well Field Name Barbour County County WV State										
(b) For OCS wells:	Not Applicable										
(c) Name and identification number of this well: (35 letters and digits maximum.)	47-001-2091 Whitis #4 Well										
(d) If code 4 or 5 in 2.0 above, name of the reservoir: (35 letters maximum.)	Not Applicable										
6.0 (a) Name and code number of the purchaser: (35 letters and digits maximum. If code number not available, leave blank.)	Tenneco Name										
(b) Date of the contract:	0, 4, 1, 9 8 4 Mo. Day Yr.										
(c) Estimated annual production:	MMcf.										
7.0 Contract price: (As of filing date. Complete to 3 decimal places.)	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:33%;"></th> <th style="width:17%;">(a) Base Price (\$/MMBTU)</th> <th style="width:17%;">(b) Tax</th> <th style="width:17%;">(c) All Other Prices [Indicate (+) or (-).]</th> <th style="width:16%;">(d) Total of (a), (b) and (c)</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">8.0 Maximum lawful rate: (As of filing date. Complete to 3 decimal places.)</td> <td style="text-align: center;">2.909</td> <td style="text-align: center;">.290</td> <td style="text-align: center;">---</td> <td style="text-align: center;">3.199</td> </tr> </tbody> </table>		(a) Base Price (\$/MMBTU)	(b) Tax	(c) All Other Prices [Indicate (+) or (-).]	(d) Total of (a), (b) and (c)	8.0 Maximum lawful rate: (As of filing date. Complete to 3 decimal places.)	2.909	.290	---	3.199
	(a) Base Price (\$/MMBTU)	(b) Tax	(c) All Other Prices [Indicate (+) or (-).]	(d) Total of (a), (b) and (c)							
8.0 Maximum lawful rate: (As of filing date. Complete to 3 decimal places.)	2.909	.290	---	3.199							
9.0 Person responsible for this application:	Chesterfield Energy Corporation Samuel J. Cann Name V.P. Land & Contracts Title  Signature July 30, 1984 Date Application is Completed (304) 623-5467 Phone Number										

RECEIVED

OIL & GAS DIVISION
DEPT. OF MINES

Date Received by Juris. Agency
JUL 31 1984

Date Received by FERC

Date July 30, 1984

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OIL AND GAS DIVISION

Operator's Well No Whitis #4 Well

API Well No 47 - 001 - 2091
State County Permit

WELL CLASSIFICATION FORM
NEW ONSHORE PRODUCTION WELL
MGPA Section 103

DESIGNATED AGENT Samuel J. Cann
ADDRESS 320 Professional Building
Clarksburg, WV 26301

WELL OPERATOR Chesterfield Energy Corp.
ADDRESS 320 Professional Building
Clarksburg, WV 26301

LOCATION: Elevation 1942.37'
Watershed Koontz Hollow
Dist Barker County Barbour Quad Belington

GAS PURCHASER Tenneco Attn: Kathy Schooley
ADDRESS P. O. Box 2511
Houston, TX 77001

Gas Purchase Contract No 1481
Meter Chart Code N/A
Date of Contract April 19, 1984

* * * * *

Date surface drilling was begun: July 17, 1984

Indicate the bottom hole pressure of the well and explain how this was calculated

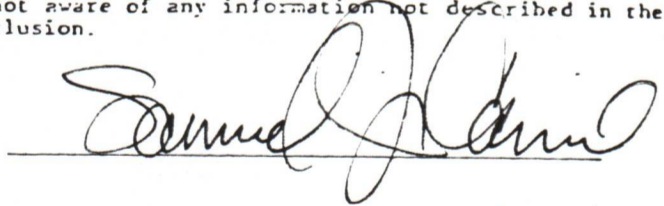
$$P_2 = \frac{P_1 T_2}{T_1} = \frac{(\text{Surface Pressure})(\text{Bottom Hole Pressure})}{(\text{Surface Temperature})} = \text{B.H.P.}$$

$$\text{BHP} = P_1 + P_1 (e^X - 1)$$

$$\begin{aligned} P_1 &= 1000 & X &= \text{GL}/53.34T \\ G &= .68 & \text{BHP} &= 1084.90 \\ T &= 575 \end{aligned}$$

AFFIDAVIT

I, Samuel J. Cann, having been first sworn according to law state that surface drilling of the well for which this determination is sought was begun on or after February 19, 1977; the well satisfies applicable state or federal well spacing requirements and the well is not within a proration unit, in existence at the time surface drilling began, which was applicable to the reservoir from which gas is or will be produced and which applied to any other well producing gas in commercial quantities or on which surface drilling began on or after February 19, 1977, and which was capable of producing gas in commercial quantities. I state, further, that I have concluded, to the best of my information, knowledge and belief, that the well for which this determination is sought is a new onshore production well and that I am not aware of any information not described in the application which is inconsistent with this conclusion.



STATE OF WEST VIRGINIA,

COUNTY OF Harrison TO WIT:

I, Brenda Drummond, a Notary Public in and for the state and county aforesaid, do certify that Samuel J. Cann whose name is signed to the writing above, bearing date the 30 day of July, 19 84, has acknowledged the same before me, in my county aforesaid.

Given under my hand and official seal this 30 day of July, 19 84.

My term of office expires on the 14th day of June, 19 94.

[NOTARIAL SEAL]



FORM IV-48WC
(02-84)

STATE OF WEST VIRGINIA

DEPARTMENT OF MINES, OIL AND GAS DIVISION

COVER SHEET, STATE APPLICATION FOR WELL CLASSIFICATION

AUG 16 1984

Date: July 30, 19 84

Applicant's Name: Chesterfield Energy Corporation

Address: 320 Professional Building
Clarksburg, WV 26301

Gas Purchaser Contract No. 1481

Date of Contract April 19, 1984
(Month, day and year)

First Purchaser: Tenneco Attn: Kathy Schooley

Address: P. O. Box 2511
(Street or P.O. Box)
Houston, TX 77001
(City) (State) (Zip Code)

FERC Seller Code 003449

AGENCY USE ONLY

WELL DETERMINATION FILE NUMBER

840731 - 103 - 001 - 2091

Use Above File Number on all
Communications Relating to This Well

Designated Agent: Samuel J. Cann

Address: 320 Professional Building
Clarksburg, WV 26301

FERC Buyer Code ---

NAME AND TITLE OF PERSON TO WHOM QUESTIONS CONCERNING THIS APPLICATION SHALL BE ADDRESSED:

Name: Samuel J. Cann (Print) Vice President Land & Contracts (Title)

Signature: *Samuel J. Cann*

Address: 320 Professional Building
(Street or P.O. Box)
Clarksburg, WV 26301
(City) (State) (Zip Code)

Telephone: (304) 623-5467
(Area Code) (Phone Number)

(Certificate of Proof of Service to Purchaser)

NGPA Category Applied For

NGPA SECTION/SUBSECTION

- 102 New Natural Gas
- 102-2 2.5 Mile Test
 - 102-3 1000 Foot Deeper Test
 - 102-4 New Onshore Reservoir
- 103 New Onshore Production Well
- 103 New Onshore Production Well
- 107 High Cost Natural Gas
- 107-0 Deep (more than 15,000 feet)
 - 107-1 Geopressured Brine
 - 107-2 Coal Seams
 - 107-3 Devonian Shale
 - 107-5 Production enhancement
 - 107-6 New Tight Formation
 - 107-7 Recompletion Tight Formation

- 108 Stripper Well Natural Gas
- 108- Stripper Well
 - 108-1 Seasonally Affected
 - 108-2 Enhanced Recovery
 - 108-3 Temporary Pressure Buildup

AGENCY USE ONLY

QUALIFIED

JUL 31 1984

Date Received

AUG 16 1984

Determination Date

Date: July 30, 1984

Operator's Well No. Whitis #4 Well

API Well No. 47 - 001 - 2091
State County Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OIL AND GAS DIVISION

WELL OPERATOR'S REPORT
OF
INITIAL GAS-OIL RATIO TEST

WELL OPERATOR Chesterfield Energy Corporation
Address 320 Professional Building
Clarksburg, WV 26301

DESIGNATED AGENT Samuel J. Cann
Address 320 Professional Building
Clarksburg, WV 26301

GEOLOGICAL TARGET FORMATION: Haverty, Fox, Benson, Alexander, Speechley Depth 5574' TD feet
Perforation Interval N/A feet

GUIDELINES FOR TESTING:

- 1- A minimum of gas vented or flared
- 2- A 24 hour preflow into pipelines or tanks
- 3- Uniform producing rate during the 24 hour test per test period
- 4- Measurement standards as for Form IV-39, "Report of Annual Production" (see Regulation 21.01)
- 5- Separate Form IV-36 for each producing formation in a multiple completion

TEST DATA				
START OF TEST-DATE	TIME	END OF TEST-DATE	TIME	DURATION OF TEST
TUBING PRESSURE		CASING PRESSURE		SEPARATOR PRESSURE
OIL PRODUCTION DURING TEST		GAS PRODUCTION DURING TEST		WATER PRODUCTION DURING TEST & SALINITY
bbls.		Mcf		bbls. ppm.
OIL GRAVITY		PRODUCING METHOD (Flowing, pumping, gas lift, etc.)		
°API				

GAS PRODUCTION		
MEASUREMENT METHOD		POSITIVE CHOKE
FLANGE TAP <input type="checkbox"/>	PIPE TAP <input type="checkbox"/>	L-10 <input type="checkbox"/>
		CRITICAL FLOW PROVER <input type="checkbox"/>
ORIFICE DIAMETER	PIPE DIAMETER (INSIDE DIAM.)	NOMINAL CHOKE SIZE - IN.
DIFFERENTIAL PRESSURE RANGE	MAX. STATIC PRESSURE RANGE	PROVER & ORIFICE DIAM. - IN.
DIFFERENTIAL	STATIC	GAS GRAVITY (Air=1.0)
		MEASURED ESTIMATED
GAS GRAVITY (Air=1.0)	FLOWING TEMPERATURE	GAS TEMPERATURE °F
24 HOUR COEFFICIENT	24 HOUR COEFFICIENT	
	48 hrs.	
	PRESSURE - 1000 psia	

TEST RESULTS			
DAILY OIL	DAILY WATER	DAILY GAS	GAS-OIL RATIO
-0- bbls.	-0- bbls.	450 Mcf.	Infinity SCF/STB

Chesterfield Energy Corporation

Well Operator
By: Samuel J. Cann
Its: Vice President Land and Contracts

ASSIGNMENT AGREEMENT

THIS ASSIGNMENT AGREEMENT, made this 22nd day of May, 1984, by and between ROBERT WHITIS and JAMES A. VARNER, dba Vartis Associates, party of the first part, hereinafter called "Vartis," and CHESTERFIELD ENERGY CORPORATION, a West Virginia corporation, party of the second part, hereinafter called "Chesterfield."

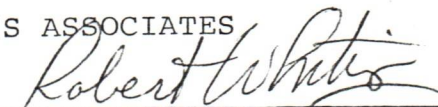
WITNESSETH, that for and in consideration of the sum of One Dollar (\$1.00) and other valuable consideration, including a two percent (2%) overriding royalty interest in the oil and gas produced from each and every well drilled upon said leasehold estate hereby assigned, cash in hand paid by Chesterfield to Vartis, the receipt of which is acknowledged, Vartis does hereby assign, transfer and set over unto Chesterfield all of its right, title and interest in and to that certain leasehold estate situate in Barker District, Barbour County, West Virginia, described with more particularity in that certain lease agreement dated May 10, 1984, by and between Robert Whitis and Evelyn Whitis, his wife, parties of the first part, and Robert Whitis and James A. Varner, partners trading and doing business as Vartis Associates, parties of the second part, which said lease is to be placed of record in the office of the Clerk of the County Commission of Barbour County, West Virginia, and which said leasehold estate contains 170 acres, excepting and reserving only that certain lease for one well and its drainage area, being that certain well that is the subject of an agreement dated the 4th day of May, 1984, by and between Robert Whitis and Evelyn Whitis, his wife, and Continental Reserves 1980-C, a Pennsylvania limited partnership, which said agreement is likewise to be placed of record in the said Clerk's office.

Chesterfield agrees to abide by and honor the terms and conditions of the said lease hereby assigned, including but not limited to the prompt payment of all royalties due to the original lessors, and to do all things necessary to keep the said lease in full force and effect. Chesterfield shall indemnify and save harmless Vartis Associates from any claims, demands, suits or other such demands arising out of the performance by Chesterfield of the duties and obligations of said lease agreement. Other than the aforesaid two percent (2%) overriding royalty interest, Vartis reserves no right, title and interest in and to the said leasehold estate.

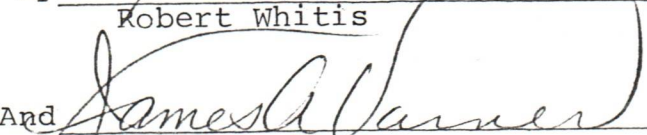
Witness the following signatures:

VARTIS ASSOCIATES

By

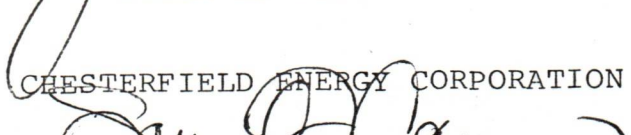

Robert Whitis

And


James A. Varner

CHESTERFIELD ENERGY CORPORATION

By


Its Superintendent

STATE OF WEST VIRGINIA,
COUNTY OF HARRISON, TO-WIT:

The foregoing instrument was acknowledged before me this
22nd day of May, 1984, by Robert Whitis and James A.
Varner, dba Vartis Associates.

My commission expires: April 24, 1989.

Karen Sue Hean
Notary Public in and for Harrison
County, State of West Virginia

STATE OF WEST VIRGINIA,
COUNTY OF HARRISON, TO-WIT:

The foregoing instrument was acknowledged before me this
22nd day of May, 1984, by Samuel J. Cann,
(name)
Supervisor Land Dept. of Chesterfield Energy Corporation, a West
(title)
Virginia corporation, on behalf of the corporation.

My commission expires: April 24, 1989.

Karen Sue Hean
Notary Public in and for Harrison
County, State of West Virginia

This instrument was prepared by James A. Varner, of
McNeer, Highland & McMunn, Attorneys,
Empire National Bank Building,
Clarksburg, West Virginia

OIL AND GAS LEASE

THIS AGREEMENT, made and entered into this 10th day of May, 1984, by and between ROBERT WHITIS and EVELYN WHITIS, his wife, hereinafter called Lessors, and ROBERT WHITIS and JAMES A. VARNER, dba Vartis Associates, c/o Route 2, Box 133, Bristol, West Virginia, 26332, hereinafter called Lessee.

WITNESSETH, that Lessors, for and in consideration of the sum of One Dollar (\$1.00) to them in hand paid by Lessee, the receipt of which is hereby acknowledged, and of covenants and agreements hereinafter contained on the part of Lessee to be paid, kept and performed, have granted, demised, leased and let and by these presents do grant, demise, lease and let unto Lessee, for their exclusive possession and use, including their heirs, successors or assigns, for the purpose of exploring and operating for, producing and marketing oil and gas, natural gasoline, casing head gas, condensate, related hydrocarbons, and all other related products, including the building of roads, laying pipelines, installation of meters and installing equipment thereon to take care of such products, all that certain tract or parcel of land situate in Barker District, Barbour County, West Virginia, containing 170 acres, more or less, excepting and reserving, however, all of the area within the drainage basin of the existing well on said property, said drainage basin being a circular area 1,500 feet in radius, with the existing well at the center thereof, which said well site is presently leased to Continental Reserves 1980-C, a Pennsylvania limited partnership, by virtue of an agreement entered into by and between Robert Whitis and Evelyn Whitis, his wife, and Continental Reserves 1980-C, which said agreement is dated May 4, 1984, and will be recorded hereinafter in the office of the Clerk of the County Commission of Barbour County, West Virginia.

It is agreed that the term of this lease shall be from the date of the execution hereof until the 31st day of December, 1984. In the event that the Lessee has drilled two wells upon the subject property by December 31, 1984, the first of such wells to be completed not later than the 30th day of July, 1984, then and in that event the term hereof shall extend until the 31st day of December, 1985. In the event that two additional wells have been drilled upon the said property by the Lessee by the 31st day of December, 1985, then and in that event the term of this lease shall extend for a four-year period from the date the fourth well is drilled. In the event that Vartis Associates shall have drilled three wells by the 31st day of December, 1984, then and in that event it shall only have the obligation to drill one well by the end of calendar year 1986 and the extension to the primary term hereinabove described shall be for four consecutive years from the date the fourth well is drilled. The Lessee, Vartis Associates, covenants and agrees that as a further consideration for the leasehold interest conveyed herein that it will promptly permit each available well location and that it will maintain the permits in full force and effect until such time as the said leasehold estate is fully developed. Vartis Associates also covenants and

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JUN 21 1984

OIL & GAS DIVISION
DEPT. OF MINES

agrees that it will drill the perimeter well sites first so as to prevent a space-out of the perimeter well sites by drilling on adjacent properties.

In the event that Vartis Associates fails to extend the basic term hereof or any extension term hereof by drilling the required wells described in the foregoing paragraph, then and in that event Vartis Associates shall promptly surrender the balance of the leasehold estate unto Lessors, maintaining in full force and effect only the drainage area from each existing well drilled by Vartis Associates upon the said leasehold estate. Said drainage area for each such well shall be deemed to be a circular area 1,500 feet in radius, with the existing well at the center thereof.

In consideration of the premises, Lessee covenants and agrees: 1st--to deliver to the credit of Lessors, their heirs, successors, or assigns, free of cost, a royalty equaling their proportionate share of one-eighth (1/8) part of all oil produced and saved from the leased premises; 2nd--to pay their proportionate share of one-eighth (1/8) of the value at the well of the gas from each and every gas well drilled on said premises, the product from which is marketed and used off the premises; said gas to be measured by meters and said payments to be made by party of second part, by check, mailed to last reported address, to the parties of the first part, their heirs or assigns, and payable monthly within ten days of the receipt of said money from the sale of said products; 3rd--to pay "shut-in" royalty, on each date that royalty otherwise would be due as hereinabove provided, based on \$300.00 per well per year, for each well producing gas only when the gas from such well is not sold, marketed or used off the premises for thirty (30) days or more beyond the designated pay period, and upon such payment it will be considered that gas is being produced in paying quantities.

Lessee shall not be required in any event to increase the rate of said gas well payments or said royalty of oil by reason of any royalty or interest in said oil or gas that may have been heretofore sold, reserved or conveyed by Lessors or their predecessors in title or otherwise, and any such outstanding royalty or interest shall first be deducted from the royalties and rentals above provided to be paid or delivered.

If Lessors own the surface over any part of the leased premises, then Lessors reserve the right to take 300,000 cubic feet of gas per annum for domestic use on said land; or, if Lessors do not own any part of said surface, Lessee may, at its option and free of any charge from Lessors, allow the parties owning said surface to use said 300,000 cubic feet of gas per annum for domestic purposes in one dwelling house only on said land. Said gas shall be taken and used wholly at user's own risk free of charge in safe and proper pipes and appliances, and said domestic gas user shall furnish and install, at their expense, the necessary regulating equipment and pipeline for the safe use of same. Lessee shall provide a connection for said pipeline at a producing gas well on said leased premises, or, at Lessee's option, at a point on Lessee's pipeline leading from said well. All gas used in excess of the

above stated amount in any one calendar year shall be paid for by the user of same at a fair domestic rate. All gas so taken and used shall be subject to the use, operation and right of abandonment of the well and pipeline by Lessee, and Lessee shall not be held liable for any accident or damage caused by the use of such gas, nor shall Lessee be liable for any shortage or failure in the supply of gas for said domestic use. In the event that the surface hereof is hereinafter subdivided by Lessors and a dwelling house placed upon a subdivided area containing within the boundaries thereof a gas well, then and in that event the said dwelling house shall receive 300,000 cubic feet of gas per annum in the same fashion as set forth above. In no event and under no circumstance shall any well be required to service more than one dwelling house with free gas.

Lessee covenants and agrees to locate all wells so as to interfere as little as possible with the cultivated portion of the hereinabove described tract or parcel of land; and it is agreed that the leased premises may be fully and freely used by Lessors for farming purposes, except such parts as are used by Lessee in operating hereunder.

Lessee covenants and agrees to pay to the Lessors their proportionate share of the rental in the amount of Fifty Dollars (\$50.00), in advance, beginning 60 days after the receipt of 100% interest, but not after the date an oil or gas well is drilled upon the leased premises. Any rental paid for time beyond that date shall be credited upon the first royalty due, and all rentals shall cease after the surrender of this lease as hereinafter provided for. All payments by Lessee hereunder shall be made by check payable and mailed as follows:

Robert Whitis
c/o Coronado Transmission Company
Belington, West Virginia 26250

It is agreed that Lessee is to have the privilege of using sufficient water and gas from said premises to run all machinery necessary for drilling and operating, and all rights of way necessary to develop the premises or remove equipment, etc., and at any time during or after expiration of this lease to remove all machinery, casing, tubing, fixtures and equipment placed on said premises; and further, upon the payment of \$1.00 by Lessee, its successors or assigns to Lessors, their heirs, successors or assigns, said Lessee, its successors or assigns, shall have the right to surrender this lease for cancellation, after which all payments and liabilities, thereafter to accrue under and by virtue of its terms shall cease and terminate, and this lease shall become absolutely null and void.

Lessors agree that the recordation of a deed of surrender in the proper county, and the mailing in the post office of a check, payable as above provided, for said last mentioned sum and all amounts then due hereunder by Lessee, shall be a full surrender and termination of this lease.

All provisions of this lease shall be binding upon the heirs, executors, administrators, successors and assigns of the parties hereto.

Vartis Associates agrees to transport all gas produced from the total acreage owned by Lessors, gas produced thereon, be it by virtue of the existing lease or by virtue of the lease to Continental Reserves 1980-C.

Witness the following signatures:

Robert Whitis
Robert Whitis

Evelyn Whitis, Robert Whitis her attorney in fact.
Evelyn Whitis

VARTIS ASSOCIATES

By Robert Whitis
Robert Whitis

And James A. Varner
James A. Varner

STATE OF WEST VIRGINIA,
COUNTY OF HARRISON, TO-WIT:

The foregoing instrument was acknowledged before me this 22nd day of May, 1984, by Robert Whitis.

My commission expires: April 24, 1989.

Karen Sue Hess
Notary Public in and for Harrison
County, State of West Virginia

STATE OF WEST VIRGINIA,
COUNTY OF HARRISON, TO-WIT:

The foregoing instrument was acknowledged before me this 22nd day of May, 1984, by ~~XXXXXXXXXXXX~~ Robert Whitis, attorney in fact for Evelyn Whitis.

My commission expires: April 24, 1989.

Karen Sue Hess
Notary Public in and for Harrison
County, State of West Virginia

[affix notarial seal]

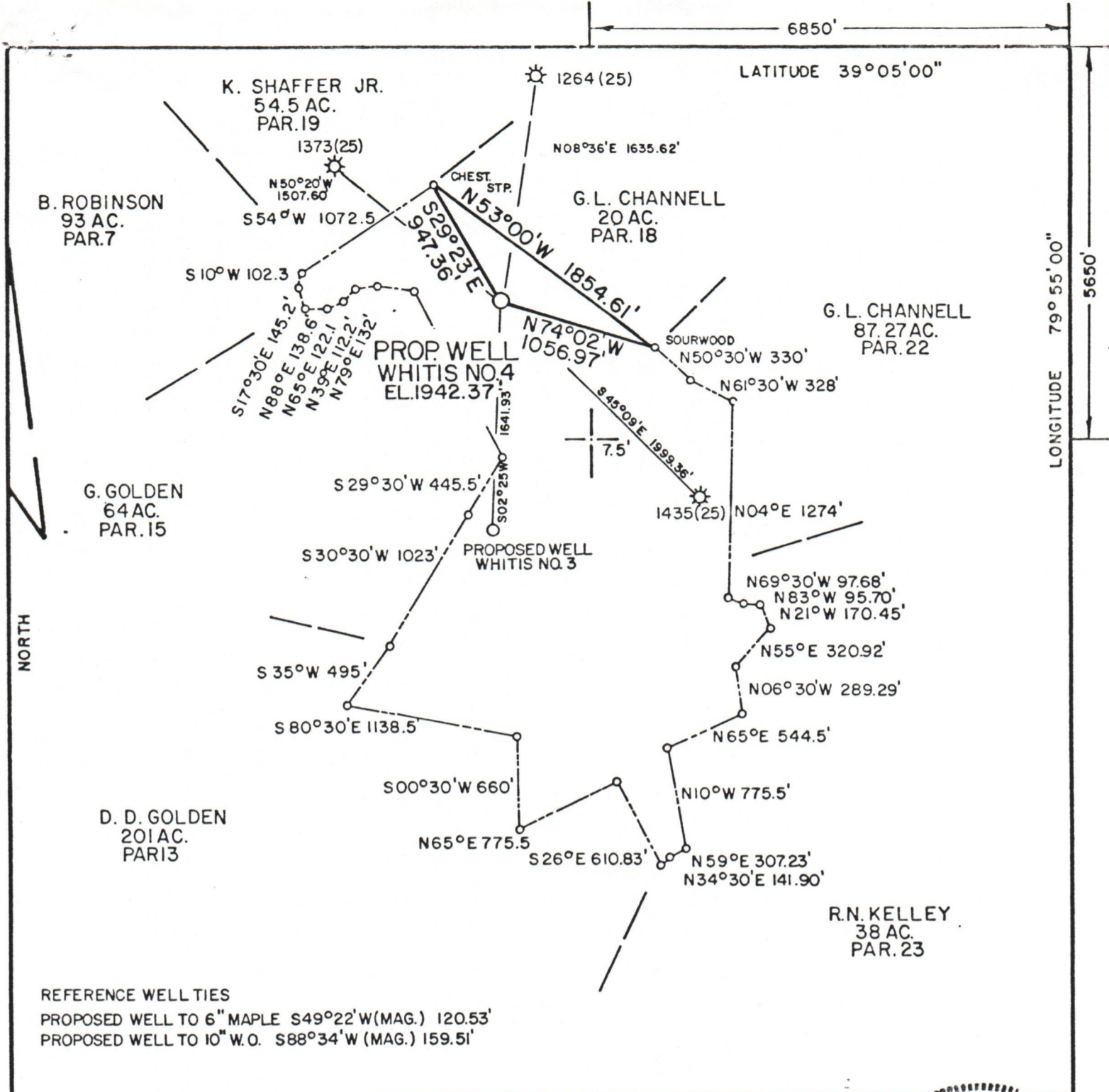
STATE OF WEST VIRGINIA,
COUNTY OF HARRISON, TO-WIT:

The foregoing instrument was acknowledged before me this
22nd day of May, 1984, by Robert Whitis and James A.
Varner, dba Vartis Associates.

My commission expires: April 24, 1989.

Karen Sue Hear
Notary Public in and for Harrison
County, State of West Virginia

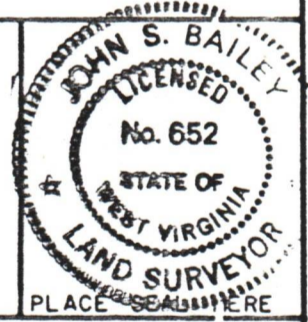
This instrument was prepared by James A. Varner, of
McNeer, Highland & McMunn, Attorneys,
Empire National Bank Building,
Clarksburg, West Virginia



REFERENCE WELL TIES
 PROPOSED WELL TO 6" MAPLE S49°22'W(MAG.) 120.53'
 PROPOSED WELL TO 10" W.O. S88°34'W (MAG.) 159.51'

FILE NO. MSES 84-420
 DRAWING NO. _____
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1 IN 200
 PROVEN SOURCE OF ELEVATION RD. JCT. RT. 92 & 92/27
EL. 1650'

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) John S. Bailey
 R.P.E. _____ L.L.S. 652



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6
 (8-78)



Department of Mines
 Oil & Gas Division

DATE MAY 29, 19 84
 OPERATOR'S WELL NO. WHITIS NO. 4
 API WELL NO. 47-001
 STATE COUNTY PERMIT

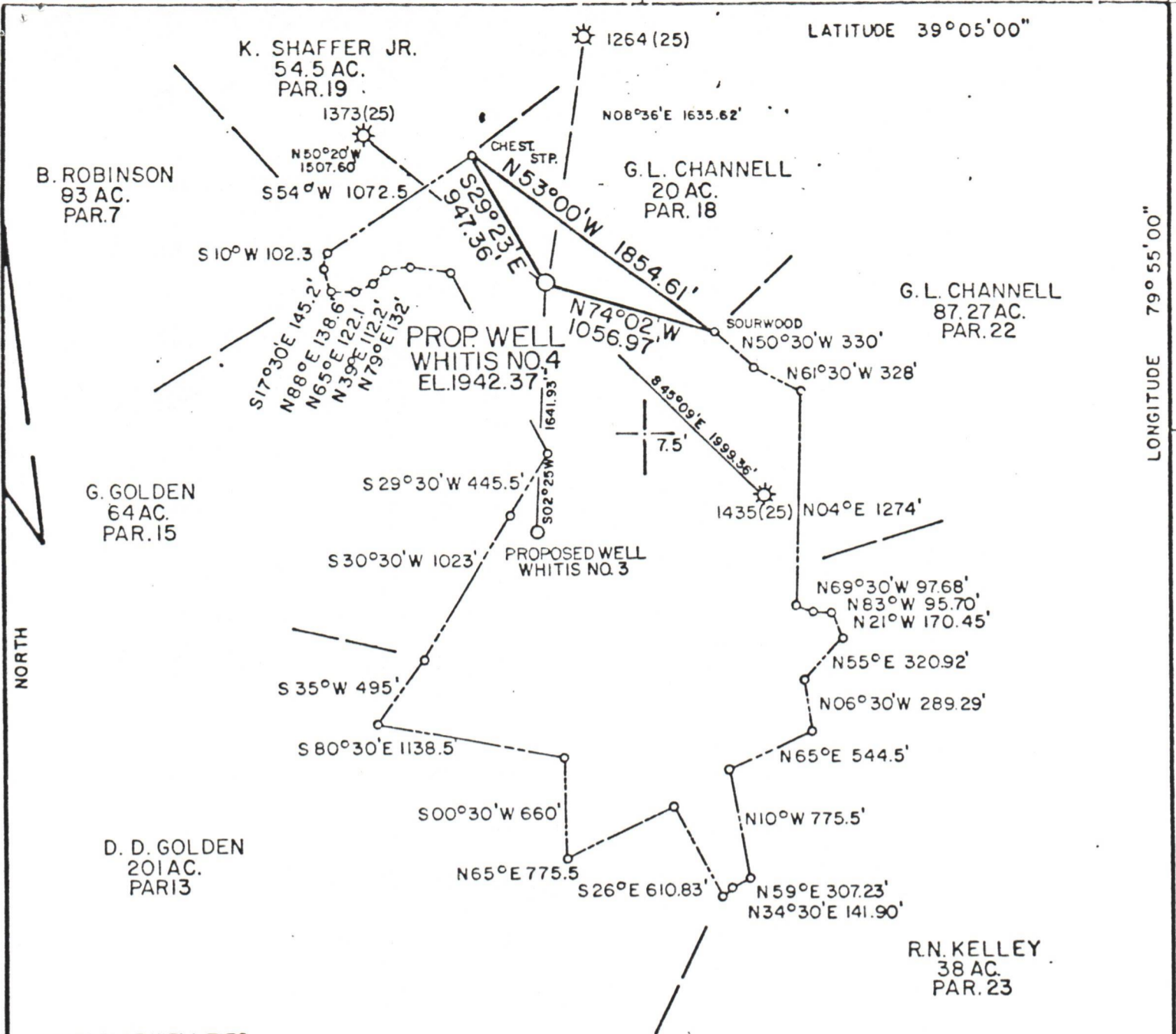
WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS", PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X)
 LOCATION: ELEVATION 1942.37' WATER SHED KOONTZ HOLLOW
 DISTRICT BARKER COUNTY BARBOUR
 QUADRANGLE BELINGTON 7.5' (1976)
 SURFACE OWNER ROBERT B. WHITIS ACREAGE 170.
 OIL & GAS ROYALTY OWNER ROBERT B. WHITIS LEASE ACREAGE 170
 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 ALEXANDER ESTIMATED DEPTH 4500'
 WELL OPERATOR CHESTERFIELD ENERGY CORP. DESIGNATED AGENT STANLEY N. PICKENS
 ADDRESS 319-320 PROFESSIONAL BLDG. CLARKSBURG, W.V. 26301 ADDRESS 319-320 PROFESSIONAL BLDG. CLARKSBURG, W.V. 26301

177H 6/22/84

6850'

LATITUDE 39°05'00"

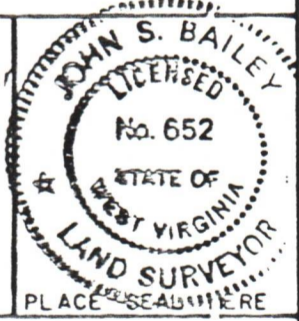
LONGITUDE 79°55'00"



REFERENCE WELL TIES
 PROPOSED WELL TO 6" MAPLE S49°22'W(MAG.) 120.53'
 PROPOSED WELL TO 10" W.O. S88°34'W (MAG.) 159.51'

FILE NO. MSES 84-420
 DRAWING NO. _____
 SCALE 1"=1000'
 MINIMUM DEGREE OF ACCURACY 1 IN 200
 PROVEN SOURCE OF ELEVATION RD. JCT. RT. 92 & 92/27
EL. 1650'

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) John S. Bailey
 R.P.E. _____ L.L.S. 652



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6
 (8-78)



DATE MAY 29, 19 84
 OPERATOR'S WELL NO. WHITIS NO. 4
 API WELL NO. _____
47-001-2091
 STATE COUNTY PERMIT

Department of Mines
 Oil & Gas Division

WELL TYPE: OIL _____ GAS X LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS", PRODUCTION X STORAGE _____ DEEP _____ SHALLOW X)
 LOCATION: ELEVATION 1942.37' WATER SHED KOONTZ HOLLOW
 DISTRICT BARKER COUNTY BARBOUR
 QUADRANGLE BELINGTON 7.5' (1976)
 SURFACE OWNER ROBERT B. WHITIS ACREAGE 170
 OIL & GAS ROYALTY OWNER ROBERT B. WHITIS LEASE ACREAGE 170
 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 ALEXANDER ESTIMATED DEPTH 4500'
 WELL OPERATOR CHESTERFIELD ENERGY CORP. DESIGNATED AGENT STANLEY N. PICKENS
 ADDRESS 319-320 PROFESSIONAL BLDG. ADDRESS 319-320 PROFESSIONAL BLDG.
CLARKSBURG, W.V. 26301 CLARKSBURG, W.V. 26301