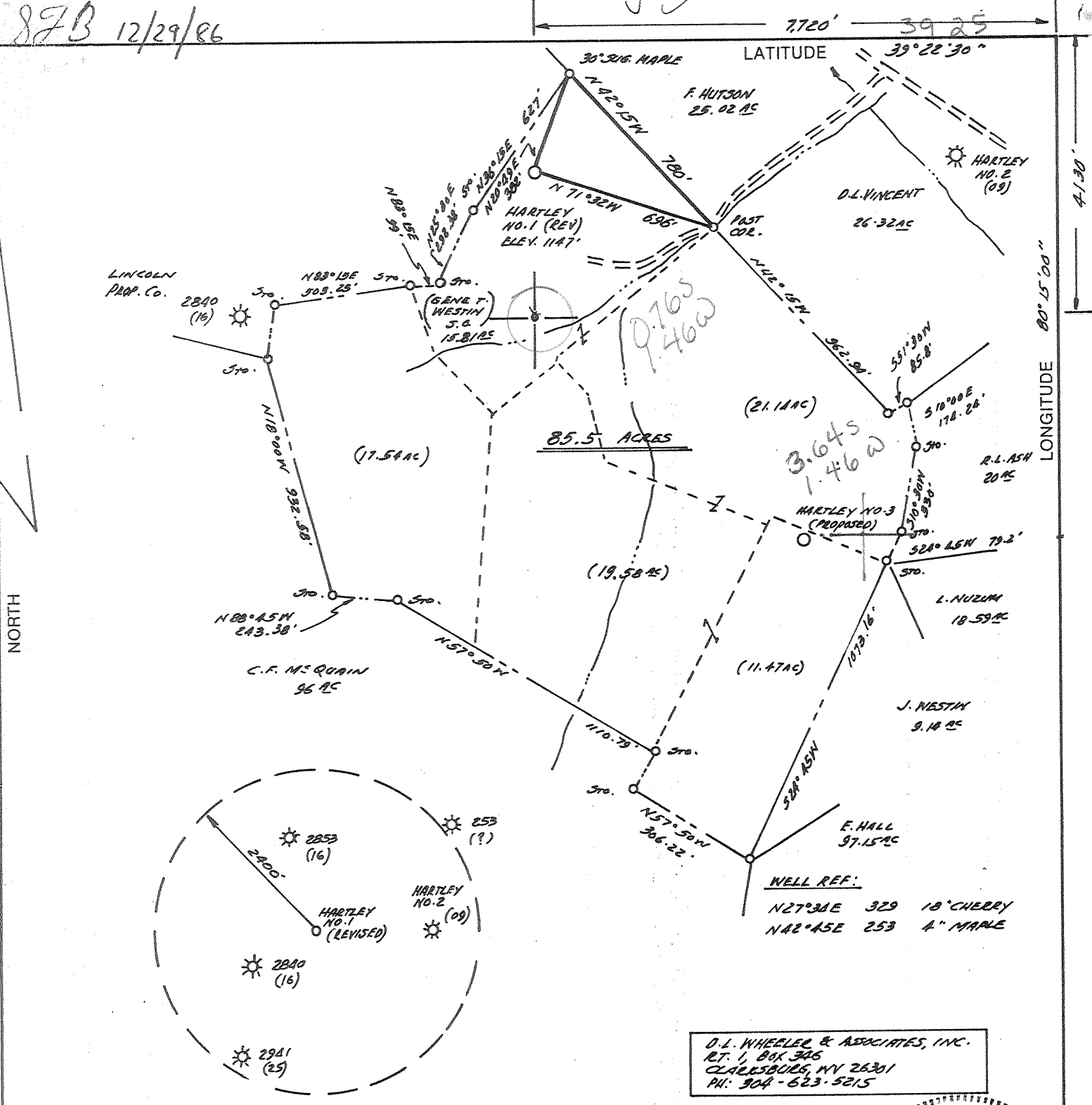


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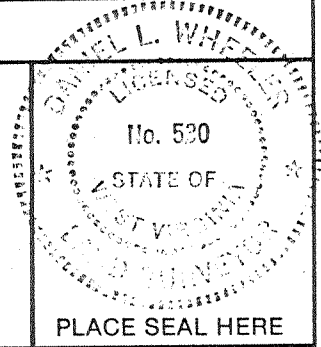


(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1 IN 200  
 PROVEN SOURCE OF ELEVATION U.E. Jct. Rt. 13 & Rt. 13/2 ELEV. 1001'

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENERGY.

(SIGNED) Daniel L. Wheeler  
 R.P.E. \_\_\_\_\_ L.L.S. 530  
DANIEL L. WHEELER



**STATE OF WEST VIRGINIA**  
 DEPARTMENT OF ENERGY  
 OIL AND GAS DIVISION

DATE DECEMBER 10, 19 86  
 OPERATOR'S WELL NO. HARTLEY NO. 1  
 API WELL NO. (REVISED)

47 - 033 - 3393  
 STATE COUNTY PERMIT

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X

LOCATION: ELEVATION 1147 WATER SHED SHINNS RUN  
 DISTRICT CLAY COUNTY HARRISON  
 QUADRANGLE CLARKSBURG 7.5' 297 027 EC6

SURFACE OWNER GENE T. WESTIN, ET AL ACREAGE 15.81 AC  
 OIL & GAS ROYALTY OWNER DAISY HARTLEY HEIRS LEASE ACREAGE 85.5 AC  
 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 BALLTOWN ESTIMATED DEPTH 3600'  
 WELL OPERATOR CHESTERFIELD ENERGY, CORP. DESIGNATED AGENT JAMUEL J. CANN  
 ADDRESS 203 W. MAIN ST. ADDRESS 203 W. MAIN ST.

CLARKSBURG, WY 26301 Bridgeport Printers CLARKSBURG, WY 26301

COUNTY NAME  
 PERMIT

JAN 05 1986



IV-35  
(Rev 8-81)

Date August 27, 1987  
Operator's  
Well No. Hartley #1 Well  
Farm \_\_\_\_\_  
API No. 47 - 033 - 3393

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State of West Virginia  
Department of Mines  
Oil and Gas Division

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

WELL OPERATOR'S REPORT  
OF  
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

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

LOCATION: Elevation: 1147' Watershed Shinns Run  
District: Clay County Harrison Quadrangle Clarksburg 7.5'

COMPANY Chesterfield Energy Corporation  
ADDRESS 203 West Main St., Clarksburg, WV 26301  
DESIGNATED AGENT Samuel J. Cann  
ADDRESS 203 West Main St., Clarksburg, WV 26301  
SURFACE OWNER Jeane & Gene T. Westin  
ADDRESS 34 Lundy Ct., Sacramento, CA 95822  
MINERAL RIGHTS OWNER Daisy Hartley Heirs  
ADDRESS 221 Glassglow Rd, Pittsburgh, PA 15221  
OIL AND GAS INSPECTOR FOR THIS WORK Stephen Casey  
ADDRESS Rotue #2, Box 232-D Jane Lew, WV 26378  
PERMIT ISSUED January 2, 1987  
DRILLING COMMENCED August 19, 1987  
DRILLING COMPLETED August 22, 1987

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
<del>11 3/4</del>			
9 5/8			
8 5/8		970'	210 sks
7			
5 1/2			
4 1/2		3390'	250 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 Depth \_\_\_\_\_ feet  
Depth of completed well 3457 feet Rotary XX / Cable Tools \_\_\_\_\_  
Water strata depth: Fresh None feet; Salt \_\_\_\_\_ feet  
Coal seam depths: 163'-167', 206'-209', 306'-309', 363'-365' Is coal being mined in the area? \_\_\_\_\_

OPEN FLOW DATA  
Producing formation Speechley Pay zone depth 3348'-3356' feet  
Gas: Initial open flow 189 Mcf/d Oil: Initial open flow \_\_\_\_\_ Ebl/d  
Final open flow 410 Mcf/d Final open flow \_\_\_\_\_ Ebl/d  
Time of open flow between initial and final tests \_\_\_\_\_ hours  
Static rock pressure 804 psig (surface measurement) after \_\_\_\_\_ hours shut in  
(If applicable due to multiple completion--)  
Second producing formation Fifth Sand Pay zone depth 2650'-2694' feet  
Gas: Initial open flow \_\_\_\_\_ Mcf/d Oil: Initial open flow \_\_\_\_\_ Ebl/d  
Final open flow \_\_\_\_\_ Mcf/d Oil: Final open flow \_\_\_\_\_ Ebl/d  
Time of open flow between initial and final tests \_\_\_\_\_ hours  
Static rock pressure \_\_\_\_\_ psig (surface measurement) after \_\_\_\_\_ hours shut in

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

Speechley 5,000# 80/100; 32,000# 20/40  
517 BBLs Water

Fifth Sand 5,000# 80/100; 35,000# 20/40  
609 BBLs Water

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Fill			0	5	
Shale			5	53	
Sand & Shale			53	163	
Coal			163	167	
Sand & Shale			167	206	
Coal			206	209	
Sand & Shale			209	306	
Coal			306	309	
Sand & Shale			309	363	
Coal			363	365	
Sand & Shale			365	542	
Red Rock			542	590	
Shale			590	921	
Red Rock			921	937	
Shale			937	1043	
Red Rock			1043	1102	
Shale			1102	1232	
Red Rock			1232	1584	
Big Lime			1584	1650	Gas Ck @ 1609' No Show
Injun			1650	1735	Gas Ck @ 2360' 4/10-1" w/w
Shale			1735	2150	Gas Ck @ 2578' 8/10-1" w/w
Sand & Shale			2150	2198	Gas Ck @ 2735' 6/10-1" w/w
50' Sand			2198	2258	Gas Ck @ 3330' 6/10-1" w/w
Sand & Shale			2258	2650	Gas Ck @ 3456' 20/10-2" w/w
5th Sand			2650	2694	Gas Ck @ Collars 20/10-2" w/w
Shale			2694	3348	
Speechley			3348	3356	
Shale			3356	3457	
TD			3457		

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DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

Gas Ck @ 1609' No Show  
Gas Ck @ 2360' 4/10-1" w/w  
Gas Ck @ 2578' 8/10-1" w/w  
Gas Ck @ 2735' 6/10-1" w/w  
Gas Ck @ 3330' 6/10-1" w/w  
Gas Ck @ 3456' 20/10-2" w/w  
Gas Ck @ Collars 20/10-2" w/w

(Attach separate sheets as necessary)

CHESTERFIELD ENERGY CORPORATION

Well Operator

By:

*Samuel J. Carr*

Date:

August 27, 1987

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 coal, encountered in the drilling of a well."

Todun

FORM NW-2(B) FILE COPY  
(Obverse) 7/85  
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1) Date: December 16, 19 86  
2) Operator's Well No. Hartley #1 Well  
3) API Well No. 47 033 -3393  
State County Permit

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

- 4) WELL TYPE: A Oil  / Gas  / B (If "Gas", Production  / Underground storage  / Deep  / Shallow  )
- 5) LOCATION: Elevation: 1147' / Watershed: Shinns Run  
District: Clay 132 / County: Harrison 033 / Quadrangle: Clarksburg 7.5' 297
- 6) WELL OPERATOR Chesterfield Energy CODE: 9550 / 7) DESIGNATED AGENT Samuel J. Cann  
Address 203 West Main Street / Address 203 West Main Street  
Clarksburg, WV 26301 / Clarksburg, WV 26301
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Stephen Casey  
Address Route #2, Box 232-D / Address Unknown  
Jane Lew, WV 26378
- 10) PROPOSED WELL WORK: Drill  / Drill deeper  / Redrill  / Stimulate  /  
Plug off old formation  / Perforate new formation  /  
Other physical change in well (specify) \_\_\_\_\_
- 11) GEOLOGICAL TARGET FORMATION, Speechley 433
- 12) Estimated depth of completed well, 3550 feet
- 13) Approximate strata depths: Fresh, 60' feet; salt, \_\_\_\_\_ feet.
- 14) Approximate coal seam depths: 169', 400' Is coal being mined in the area? Yes  / 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	Left in well		
Conductor	11 3/4	H-40	42	X		16'	16'		Kinds
Fresh water									
Coal									Sizes
Intermediate	8 5/8	J-55	23	X		979'	979'	Circulate to surface Per Rule 15.05 350 SACKS OR AS DEPTHS SET REQUIRED BY Rule 15.01	
Production	4 1/2	J-55	10.5	X			3500'		
Tubing									Perforations:
Liners									Top Bottom

OFFICE USE ONLY  
DRILLING PERMIT

Permit number 47-033-3393 / Date January 2 19 87

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 January 2, 1989 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <input checked="" type="checkbox"/>	Agent: AS	Plat: AS	Casing: AS	Fee: 6828 162	WGPC: AS	S&E: AS	Other: <input type="checkbox"/>
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NOTE: Keep one copy of this permit posted at the drilling location. Director, Division of Oil and Gas File

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