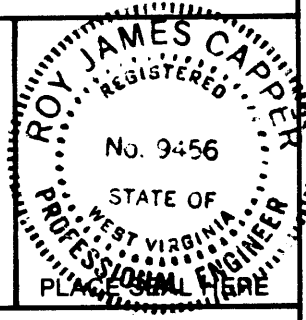


(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. 85061  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1 IN 1000  
 PROVEN SOURCE OF ELEVATION ROAD INTERSECTION ±1200' NW OF LOCATION (1141')

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) Roy J. Copper  
 R.P.E. 9456 I.L.S. \_\_\_\_\_



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



DATE 31 OCTOBER, 19 85  
 OPERATOR'S WELL NO. GROSE #1  
 API WELL NO. \_\_\_\_\_

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
 (IF "GAS,") PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 1152' WATERSHED LINE CREEK OF PETERS CREEK  
 DISTRICT JEFFERSON 4 COUNTY NICHOLAS  
 QUADRANGLE LOCKWOOD 7.S' 441 028 SEq clay  
 SURFACE OWNER MINNIE D. GROSE & AMY LIVESAY ACREAGE 65.85  
 OIL & GAS ROYALTY OWNER MINNIE D. GROSE & AMY LIVESAY LEASE ACREAGE 190.00  
 LEASE NO. \_\_\_\_\_

PROPOSED WORK: DRILL  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 INTUN SAND ESTIMATED DEPTH 2100'  
 WELL OPERATOR D.C. MALCOLM, INC. 549 DESIGNATED AGENT DUNCAN C. MALCOLM  
 ADDRESS 1006 COMMERCE SQUARE ADDRESS 1006 COMMERCE SQUARE  
CHARLESTON, WEST VIRGINIA 25301 CHARLESTON, WEST VIRGINIA 25301

FORM WW-6 H.T. HALL 48073

COUNTY NAME NICHOLAS PERMIT NOV 13 1985

1.1. Grouse Mountain (263)

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IV-35  
(Rev 8-81)

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

State of West Virginia  
Department of Mines  
Oil and Gas Division

Date December 12, 1986  
Operator's  
Well No. #1  
Farm Minnie Grose  
API No. 47-067-616

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 X / Underground Storage    / Deep    / Shallow X /)

LOCATION: Elevation: 1152' Watershed Line Creek of Peters Creek  
District: Jefferson County Nicholas Quadrangle Lockwood 7.5'

COMPANY D. C. Malcolm, Inc.  
ADDRESS 1006 Commerce Sq., Charleston, WV  
DESIGNATED AGENT D. C. Malcolm  
ADDRESS 1006 Commerce Sq., Charleston, WV  
SURFACE OWNER Minnie D. Grose, et. al.  
ADDRESS P.O. Box 772, Summersville, WV  
MINERAL RIGHTS OWNER Same as surface  
ADDRESS Same  
OIL AND GAS INSPECTOR FOR THIS WORK Craig Duckworth  
ADDRESS Gassaway, WV 26624  
PERMIT ISSUED 11-5-85  
DRILLING COMMENCED 11-8-85  
DRILLING COMPLETED 11-13-85  
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON   

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"			
9 5/8	310'	310'	150 sx (surf)
8 5/8			
7			
5 1/2			
4 1/2	1960'	1960'	200 sx (1000')
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Injun Sand Depth 1834 feet  
Depth of completed well 2000 feet Rotary X / Cable Tools     
Water strata depth: Fresh    feet; Salt    feet  
Coal seam depths: None Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Big Lime Pay zone depth 1630'-34'; 1652'-57'; 1721'-25'; 1732'-38'; 1754'-1782 feet  
Gas: Initial open flow Show Mcf/d Oil: Initial open flow    Bbl/d  
Final open flow (350) Mcf/d Oil: Final open flow    Bbl/d  
Time of open flow between initial and final tests    hours  
Static rock pressure 360 psig (surface measurement) after 72 hours shut in  
(If applicable due to multiple completion--)  
Second producing formation    Pay zone depth    feet  
Gas: Initial open flow    Mcf/d Oil: Initial open flow    Bbl/d  
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

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

Perforated 1754'-1782' w/32 holes. Acidized with 2000 gal. 15% HCl

Perforated 1721'-1725' w/9 holes & 1732'-1738' w/13 holes. Acidized w/2000 gal 28% HCl and 2000 gal 15% HCl

Perforated 1630'-1634' w/17 holes & 1652'-1657' w/21 holes. Acidized w/4000 gal 15% HCl

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Sand & Shale			0	596	
Sand			596	694	
Sand & Shale			694	1348	
Sand (Maxton)			1348	1442	S/G
Shale			1442	1474	
Lime			1474	1550	
Shale			1550	1580	
Lime (Big Lime)			1580	1824	S/G
Sand (Injun)			1824	1834	
Shale			1834	<u>2000'</u>	Total Depth

(Attach separate sheets as necessary)

D. C. Malcolm, Inc.  
Well Operator

By: *D. C. Malcolm*

Date: December 12, 1985

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."

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- 1) Date: October 31, 1985
- 2) Operator's Well No. Grose #1
- 3) API Well No. 47 - 067 - 0616  
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 X /  
B (If "Gas", Production X / Underground storage        / Deep        / Shallow        /)
- 5) LOCATION: Elevation: 1152' Watershed: Line Creek of Peters Creek  
District: Jefferson 549 County: Nicholas Quadrangle: Lockwood 7.5'
- 6) WELL OPERATOR D.C. Malcolm, Inc. CODE: 29900 7) DESIGNATED AGENT D. C. Malcolm  
Address 1006 Commerce Square Address 1006 Commerce Square  
Charleston, WV 25301 Charleston, WV 25301
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Craig Duckworth  
Address Box 107, Davisson Rt.  
Gassaway, WV 26624
- 9) DRILLING CONTRACTOR: Name Unknown  
Address
- 10) PROPOSED WELL WORK: Drill X / Drill deeper        / Redrill        / Stimulate X /  
Plug off old formation        / Perforate new formation         
Other physical change in well (specify)
- 11) GEOLOGICAL TARGET FORMATION, Injun Sand 371
- 12) Estimated depth of completed well, 2100 feet
- 13) Approximate trata depths: Fresh, 80 feet; salt, 800 feet.
- 14) Approximate coal seam depths: unknown Is coal being mined in the area? Yes        / No X

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									Kinds
Fresh water	9-5/8		36	X		300'	300'	Surface	by rule 15.03
Coal									Sizes
Intermediate									
Production	4 1/2"		10.5	X		2100'	2100'	1000'	by rule 15.01
Tubing									
Lin...									Perforations:
									Top Bottom

OFFICE USE ONLY  
DRILLING PERMIT

Permit number 47-067-0616 November 5 19 85  
Date

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 November 5, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u>  </u>	Agent: <u>  </u>	Plat: <u>  </u>	Casing <u>  </u>	Fee <u>706</u>	WPCP <u>  </u>	S&E <u>  </u>	Other <u>  </u>
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NOTE: Keep one copy of this permit posted at the drilling location.

*[Signature]*  
Director, Division of Oil and Gas

File