

MINIMUM ERROR OF CLOSURE 1:2000

SOURCE OF ELEVATION U.S. B.M. (ELEV. 1910) IN STONE ON M.E. CHURCH NORTH SIDE SAND HILL-VIOLA RD. 300' S.E. SAND HILL

New Location   
 Drill Deeper   
 Abandonment

"I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS MAP IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY PARAGRAPH 6 OF THE RULES AND REGULATIONS OF THE OIL AND GAS SECTION OF THE MINING LAWS OF WEST VIRGINIA."

Company D. G. MALCOLM INC.  
 Address 301-EMBLETON BLDG. - 922 QUARRIER ST. CHARLESTON W. VA.  
 Farm HAROLD DAUGHERTY  
 Tract \_\_\_\_\_ Acres 52 Lease No. \_\_\_\_\_  
 Well (Farm) No. 1 Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) 1232.9  
 Quadrangle CAMERON NC  
 County MARSHALL District SAND HILL  
 Engineer Gordon W. Sammons  
 Engineer's Registration No. 509  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date MAR-11-1969 Scale 1" = 100'

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON  
**WELL LOCATION MAP**  
 FILE NO. Mars-538

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

- Denotes one inch spaces on border line of original tracing.

NFD 3rd Salt sd - 445 1-1 Unnamed



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS WELLS DIVISION 7

Rotary   
Spudder   
Cable Tools   
Storage

Quadrangle Cameron  
Permit No. MARS. 538

WELL RECORD

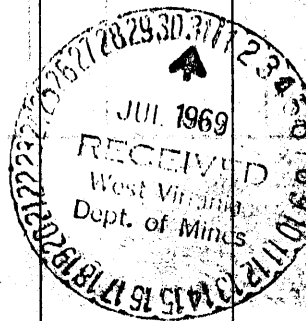
Oil or Gas Well Gas (KIND)

Company D. C. Malcolm, Inc.  
Address Suite 1404, Commerce Sq., Charleston, W. Va.  
Farm Harold Daugherty Acres 52  
Location (waters) \_\_\_\_\_  
Well No. 1 Elev. 1233  
District Sand Hill County Marshall  
The surface of tract is owned in fee by \_\_\_\_\_  
Address \_\_\_\_\_  
Mineral rights are owned by \_\_\_\_\_  
Address \_\_\_\_\_  
Drilling commenced 3-21-69  
Drilling completed 4-22-69  
Date Shot -- From \_\_\_\_\_ To \_\_\_\_\_  
With \_\_\_\_\_  
Open Flow \_\_\_\_\_ /10ths Water in \_\_\_\_\_ Inch  
\_\_\_\_\_ /10ths Merc. in \_\_\_\_\_ Inch  
Volume \_\_\_\_\_ Cu. Ft.  
Rock Pressure \_\_\_\_\_ lbs. \_\_\_\_\_ hrs.  
Oil \_\_\_\_\_ bbls., 1st 24 hrs.  
WELL ACIDIZED (DETAILS) Acidized perforations  
w/500 gal Mud Acid  
WELL FRACTURED (DETAILS) frac Berea--no results  
RESULT AFTER TREATMENT (Initial open Flow or bbls.) 420 Mcf  
ROCK PRESSURE AFTER TREATMENT 522 p.s.i. HOURS \_\_\_\_\_  
Fresh Water \_\_\_\_\_ Feet \_\_\_\_\_ Salt Water \_\_\_\_\_ Feet \_\_\_\_\_  
Producing Sand 2nd Salt Sand Depth 1600

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size <u>15</u>	<u>15'</u>	<u>15'</u>	Kind of Packer _____
<u>13</u>			Size of _____
<u>10</u>	<u>757</u>	<u>757</u>	Depth set _____
<del>8 5/8"</del>	<u>1514</u>	<u>1514</u>	
<del>7"</del>	<u>1756'</u>	<u>none</u>	
<u>5 3/16</u>			
<u>4 1/2</u>	<u>2355</u>	<u>2355</u>	Perf. top <u>1600</u> 3rd Salt Sand
<u>3</u>			Perf. bottom <u>1619</u>
<u>2</u>			
Liners Used _____			Perf. top _____
			Perf. bottom _____

Attach copy of cementing record.  
CASING CEMENTED \_\_\_\_\_ SIZE \_\_\_\_\_ No. Ft. \_\_\_\_\_ Date \_\_\_\_\_  
Amount of cement used (bags) \_\_\_\_\_  
Name of Service Co. \_\_\_\_\_  
COAL WAS ENCOUNTERED AT 710 FEET \_\_\_\_\_ INCHES  
\_\_\_\_\_ FEET \_\_\_\_\_ INCHES FEET \_\_\_\_\_ INCHES  
\_\_\_\_\_ FEET \_\_\_\_\_ INCHES FEET \_\_\_\_\_ INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Surface			0	10			
Slate			10	45	50' water	30'	
Red Rock			45	58			
Slate			58	70			
Sand			70	85			
Slate & Shells			85	217			
Sand			217	228			
Red Rock			228	240			
Lime			240	260			
Slate			260	280			
Lime			280	305			
Slate			305	329			
Coal & Slate			329	333			
Gritty Lime			333	350			
Slate & Shells			350	393			
Lime			393	410			
Sand			410	419			
Lime			419	432			
Slate			432	446			
Coal & Slate			446	452			
Slate			452	460			
Lime			460	480			
Slate			480	490			
Gritty Lime			490	620			



(over)

See PI completion rpt on reverse side

AUG 11 1969

Formation	Color	Hard or Soft	Top ?	Bottom	Oil, Gas or Water	Depth Found	Remarks
Black Slate			620	635			
Gritty Lime			635	710			
Coal <i>Phy</i>			710	718	S/G	1233	
Slate			718	745		710	
Lime			745	777		+523	
Red Rock			777	787			
Slate			787	795			
Red Rock			795	814			
Slate			814	824			
Red Rock			824	835			
Lime			835	846			
Slate			846	860			
Lime			860	869			
Slate & Shells			869	948			
Red Rock			948	990			
Lime			990	1022			
Gritty Lime			1022	1074	S/O	1022-32	
Red Rock			1074	1090			
Gritty Lime			1090	1130			
Slate			1130	1159			
Sand			1159	1184			
Slate			1184	1262			
Gritty Lime			1262	1317			
Sand			1317	1364			
Coal & Slate			1364	1369			
Lime			1369	1391			
Sand			1391	1448	Gas	1405-09	40 Mcf
Lime			1448	1502			
Sand			1502	1574	Gas	1506-13	40 Mcf
Gritty Lime			1574	1593		1513-17	327 Mcf
Sand			1593	1744	Water	1531-37	Hole full
Slate			1744	1747	Oil	1562-74	Show
Lime			1747	1778	Gas	1632-40	21 Mcf
Injun Sand			1778	1994			
Slate & Shells			1994	2252			
Gritty Lime Shells			2252	2322			
Berea Sand			2322	2345	Gas	2326-31	42 Mcf
Slate			2345	2355			
Lime			2355	2367			
Slate			2367				
TD			2368				

1747 1778  
 1233 1233  
 514 545

MARSHALL  
 D. C. MALCOLM, INC. HAROLD DAUGHERTY 49.00 80.35 W. W. P. D.  
 538 6350 S 1200 W SAND HILL  
 1235 OF 1233 GR WILDCAT SAND HILL GAS  
 SPUO 03/21/69 COMP 06711/69  
 SSG 10 374 AT 757 8 5/8 AT 1540  
 14 1/2 AT 2357 1/2 CMT 2 AT 1571 1/2 DKR  
 BTW 2355 LID 2363 PBT 1632 8TH DEVONIAN SH  
 SLT 50 1400 TO 1619 PERE NATURAL  
 LID 380 W PGRD RP 489  
 LOG # 1000 TOP 1747  
 1397 1450 MAXTON 1680 1747  
 1490 1525 BILMUN 1724 1800  
 1590 1677 BEREA 2317 2322  
 MAP Q. AD. CAMERON PROJ. DEPTH BEREA  
 CONTE. PACH-PROL. 10-PP-1107  
 GARDER. COORD. 10-PP-1107  
 P. W. OF MAJORSVILLE GAS STORAGE FIELD  
 P. W. OF PENNSYLVANIA LINE  
 REFR. FRACT. ING. RESULTS  
 AC. IZED. ACID CHANNELLED. REC. STR. ANAL.  
 RE. NO. 32  
 RE. NO. 1400, 1619, 1619  
 BY GEO. W. COO. 10-PP-1107 NAT. RP  
 P. W. OF MAJORSVILLE GAS STORAGE FIELD  
 COMPANY

Date July 28, 1969  
 APPROVED D. C. Malcolm, Inc., Owner  
 By D. C. Malcolm D. C. Malcolm  
 (Title)