



390740  
804340  
HINTER  
2,655  
270 S  
324 W  
350 W

SCHMIDT  
2,655  
1,27 W  
127  
203  
350

Minimum Error of Closure ONE PART IN 400

Source of Elevation USGS SPOT ELEVATION 2800' SW OF LOC.  
ELEV. = 843'  
IN THE CENTER OF STATE R. 18 AT JUNCTION OF CARTER CAMP RUN ROAD

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.

- Fracture.....
- New Location.....
- Drill Deeper.....
- Abandonment.....

Map No.

Signed: MARK C. ECHARD  
Squares: N S E W

Company PALEO, INC.  
 Address SUITE 205-MAY-EX-BLD 3022 N.W. EXPRESS WAY OKLAHOMA CITY, OKLAHOMA 73112  
 Farm JOSEPH HINTER LEASE  
 Tract \_\_\_\_\_ Acres 93 Lease No. \_\_\_\_\_  
 Well (Farm) No. I-622 Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) 898' *WC*  
 Quadrangle NEW MILTON 7.5' VADIS 15'  
 County DODDRIDGE District COVE  
 Surveyor MARK C. ECHARD  
 Surveyor's Registration No. 490  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date DECEMBER 5, 1978 Scale 1" = 500'

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

WELL LOCATION MAP  
FILE NO. 47-017-2323

+ Denotes location of well on United States Topographic Maps, scale 1 to 24,000, latitude and longitude lines being represented by border lines as shown.

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

JAN 25 1979

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

Date September 19, 1979

FORM IV-35  
(Obverse)

Operator's  
Well No. Hinter #1-622

[08-78,

WELL OPERATOR'S REPORT  
OF

API Well No. 47 - 017 - 2323  
State County Permi

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: 898' Watershed: Carter Camp Run  
District: Cove County: Doddridge Quadrangle: New Milton

WELL OPERATOR Paleo, Inc. DESIGNATED AGENT Mack R. Worl  
Address 3022 N.W. Expressway Address P O Box 86  
Oklahoma City, OK 73112 Sand Fork, WV 26430

PERMITTED WORK: Drill X / Convert \_\_\_ / Drill deeper \_\_\_ / Redrill \_\_\_ / Fracture or stimulate \_\_\_  
Plug off old formation \_\_\_ / Perforate new formation \_\_\_ /  
Other physical change in well (specify) \_\_\_\_\_

PERMIT ISSUED ON December 26, 19 78 OIL & GAS INSPECTOR FOR THIS WORK:

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED \_\_\_\_\_, 19 \_\_\_\_\_  
Name Paul Garrett  
Address Clarksburg, WV  
622-3871

GEOLOGICAL TARGET FORMATION: Devonian Shale Depth 5175 feet  
Depth of completed well, 5311 feet Rotary X / Cable Tools \_\_\_  
Water strata depth: Fresh, 75 feet; salt, \_\_\_ feet.  
Coal seam depths: None Is coal being mined in the area? NO  
Work was commenced January 2, 19 79, and completed January 8, 19 79

LOGGING AND TUBING PROGRAM

LOGGING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling		
Conductor								Kinds
Fresh water	8 5/8					1174	1174	To surface
al								Sizes
Intermediate								
Production	4 1/2						5210	Depth set
ing								
ers								Perforations:
								Top Bottom

SEP 28 1979

FLOW DATA  
Producing formation Benson OIL & GAS DIVISION DEPT. OF MINES  
Pay zone depth 4944 feet  
Gas: Initial open flow, \_\_\_ Mcf/d Oil: Initial open flow, \_\_\_ Bbl/d  
Final open flow, \_\_\_ Mcf/d 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

[If applicable due to multiple completion--]  
Second producing formation Blk Alex Pay zone depth 5133 feet  
Gas: Initial open flow, \_\_\_ Mcf/d Oil: Initial open flow, \_\_\_ Bbl/d  
COMBINED Final open flow, 381 Mcf/d Final open flow, \_\_\_ Bbl/d  
Time of open flow between initial and final tests, 4 hours  
Static rock pressure, 1800 psig (surface measurement) after 24 hours shut in

OCT 12 1979

[08-78]

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

Fractured January 22, 1979

Elk - 40,000 lb. 80/100 sand  
*alex* 60,000 lb. 20/40 sand  
 855 bls. water  
 2800 breakdown  
 31.7 BPM at 1500 lb.

Benson - 10,000 lb. 80/100 sand  
 20,000 lb. 20/40 sand  
 395 bls. water  
 2400 lb. breakdown  
 17.5 BPM at 2000 lb.

Perforations - 4968 - 5133, 12 holes

Perforations - 4942, 4942.5, 4943,  
 4943.5, 4944, 1 hole each

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Surface			0	75	
Sand			75	80	Water, 2" stream
Shale			80	120	
Sand			120	122	Water
Shale			122	180	
Red Rock			180	191	
Shale			191	281	
Slate			281	304	
Red Rock			304	412	
Shale			412	622	
Red Rock			622	701	
Sand			701	720	
Shale			720	798	
Red Rock			798	810	
Sand			810	901	
Red Rock			901	929	
Shale			929	1150	
Sand			1150	1240	
Shale			1240	1330	
Sand			1330	1390	
Shale			1390	1520	
Sand			1520	1580	
Shale			1580	1870	
Lime			1870	1895	
Sand			1895	1920	
Slate			1920	1930	
Lime			1930	2050	
Sandy Lime			2050	2068	Show of gas
Shale			2068	2150	
Sandy Lime			2150	2250	
Shale			2250	2350	
Sand			2350	2360	
Shale			2360	2755	
Sand			2755	2765	
Shale			2765	2892	
Sandy Shale			2892	2904	
Shale			2904	4075	
Sand			4075	4090	
Shale			4090	4224	
Sand			4224	4230	
Shale			4230	4375	
Sandy Shale			4375	4410	Show of gas
Shale			4410	4712	
Sandy Shale			4712	4728	
Shale			4728	4810	
Sandy Shale			4810	4818	Show of gas
Shale			4818	4938	
Sandy Shale			4938	4950	Show of gas
Shale			4950	5064	
Sandy Shale			5064	5164	Show of gas

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."

By Mark R. Worl  
 It's agut  
 Pateo, Inc. 5164 Well Operator *alex*



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

COPY  
RECEIVED  
DEC 23 1978

OIL & GAS DIVISION  
DEPARTMENT OF MINES

TO THE DEPARTMENT OF MINES,  
Charleston, W. Va.

DATE December 21, 1978

Surface Owner Joseph Hinter

Company Paleo, Inc.

Address New Milton, WV

Address 3022 N.W. Expressway, Oklahoma City, OK

Mineral Owner Joseph Hinter

Farm Joseph Hinter Acres 93

Address New Milton, WV

Location (waters) Carter Camp Run

Coal Owner None

Well No. I-622 Elevation 898'

Address \_\_\_\_\_

District Cove County Doddridge

Coal Operator None

Quadrangle New Milton 7.5'

Address \_\_\_\_\_

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22, of the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 4-27-79.

INSPECTOR TO BE NOTIFIED Paul Garrett

ADDRESS Clarksburg, W. Va.

PHONE 622-3871

*Robert R. Wolf*  
Deputy Director - Oil & Gas Division

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated September 12 19 72 by Joseph Hinter made to Consolidated Gas Supply and recorded on the \_\_\_\_\_ day of \_\_\_\_\_ 19\_\_\_\_, in Doddridge County, Book 96 Page 258

NEW WELL  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  
OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. \*

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address \_\_\_\_\_ day \_\_\_\_\_ before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA GEOLOGICAL AND ECONOMIC SURVEY  
P. O. BOX 879  
MORGANTOWN, WEST VIRGINIA 26505  
AC-304 - 292-6331

Address of Well Operator

3022 N.W. Expressway  
Street  
Oklahoma City  
City or Town  
Oklahoma 73112  
State

Very truly yours,  
(Sign Name) *Robert R. Wolf*  
Well Operator

\*SECTION 3 . . . . If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

BLANKET BOARD

47-017-2323 PERMIT NUMBER

"I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 12-b and will carry out the specified requirements."

Signed by *Robert R. Wolf*

COPY

THIS IS AN ESTIMATE ONLY

ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

PROPOSED WORK ORDER TO  X  DRILL \_\_\_\_\_ DEEPEN \_\_\_\_\_ FRACTURE-STIMULATE \_\_\_\_\_  
 DRILLING CONTRACTOR: (If Known) \_\_\_\_\_ RESPONSIBLE AGENT: \_\_\_\_\_  
 NAME  Union Drilling Company  NAME  Mack R. Worl   
 ADDRESS  Buckhannon, WV  ADDRESS  P.O. Box 86, Sand Fork, WV 26430   
 TELEPHONE  472-4610  TELEPHONE  462-7389   
 ESTIMATED DEPTH OF COMPLETED WELL:  5175'  ROTARY  X  CABLE TOOLS \_\_\_\_\_  
 PROPOSED GEOLOGICAL FORMATION:  Devonian Shale   
 TYPE OF WELL: OIL \_\_\_\_\_ GAS  X  COMB. \_\_\_\_\_ STORAGE \_\_\_\_\_ DISPOSAL \_\_\_\_\_  
 RECYCLING \_\_\_\_\_ WATER FLOOD \_\_\_\_\_ OTHER \_\_\_\_\_

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
13 - 10			
9 - 5/8			
8 - 5/8	988'	988'	To surface
7			
5 1/2			
4 1/2		5175'	110 sks Pozz
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS  110  FEET \_\_\_\_\_ SALT WATER \_\_\_\_\_ FEET \_\_\_\_\_

APPROXIMATE COAL DEPTHS  None  \_\_\_\_\_

IS COAL BEING MINED IN THE AREA?  No  BY WHOM? \_\_\_\_\_

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for \_\_\_\_\_ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the \_\_\_\_\_ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

For Coal Company

Official Title