



NOTE: Deed Calls for Road & Creek

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION 687 Road Intersection 1000' East of Calcutta

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) _____
 R.P.E. _____ L.L.S. _____

PLACE SEAL HERE

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



DATE DECEMBER 21, 1981
 OPERATOR'S WELL NO. _____
 API WELL NO. _____
47 - 073 - 1408
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS ___ LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___
 LOCATION: ELEVATION 701 WATER SHED LEFT FORK FRENCH CREEK
 DISTRICT Mc KIM COUNTY PLEASANTS
 QUADRANGLE SHULTZ St. Mary 15' W
 SURFACE OWNER GARY D. SNIVELY ACREAGE 45
 OIL & GAS ROYALTY OWNER GARY D. SNIVELY LEASE ACREAGE 45
 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 _____ ESTIMATED DEPTH 2500' JAN 21 1982
 WELL OPERATOR _____ DESIGNATED AGENT Frank E. Pettei
 ADDRESS _____ ADDRESS 411 1/2 SECOND ST. ST. MARYS, WV 26170

TRASCO: Marion 6-6 St. Marus (??) DEEP well



IV-35
(Rev 8-81)

Date March 1, 1982
Operator's
Well No. Snively #1
Farm Gary Snively
API No. 47 - 073 - 1408

State of West Virginia
Department of Mines
Oil and Gas Division

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

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

LOCATION: Elevation: 701 Watershed Left Fork French Creek
District: McKim County Pleasants Quadrangle Shultz

COMPANY Klondike Development Corp.
ADDRESS P. O. Box 11 Middlebourne, WV
DESIGNATED AGENT Frank E. Pethtel 261490011
ADDRESS 417 1/2 Second Street St. Marys, WV
SURFACE OWNER Gary Snively 26170
ADDRESS Route 1 St. Marys, WV 26170
MINERAL RIGHTS OWNER Same
ADDRESS
OIL AND GAS INSPECTOR FOR THIS WORK William Blosser
Route 4 Box 317 ADDRESS Fairmont, WV 26554
PERMIT ISSUED 47-073-1408 December 23, 1981
DRILLING COMMENCED January 8, 1982
DRILLING COMPLETED January 23, 1982
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON N/A

Casing Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.	30'	X	
11 3/4 13-10"	120'	X	surface
9 5/8			
8 5/8	928'	X	269 Cu.ft.
7			
5 1/2			
4 1/2	5490'	X	1134 Cu.ft.
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Marcellus Shale Depth 5410-5496 feet

Depth of completed well 5496 feet Rotary X / Cable Tools

Water strata depth: Fresh 67' feet; Salt None feet

Coal seam depths: None Is coal being mined in the area? No

OPEN FLOW DATA Alexander 4880-4906
Sycamore 4980-5372
Producing formation Marcellus Shale Pay zone depth 5410-5472 feet

Gas: Initial open flow 660 Mcf/d Oil: Initial open flow Show Bbl/d
Final open flow 420 Mcf/d Final open flow Show Bbl/d

Time of open flow between initial and final tests 96 hours

Static rock pressure 1135 psig (surface measurement) after 12 hours shut in
(If applicable due to multiple completion--)

Second producing formation None Pay zone depth None feet

Gas: Initial open flow None Mcf/d Oil: Initial open flow None Bbl/d
Final open flow None Mcf/d Oil: Final open flow None Bbl/d

Time of open flow between initial and final tests None hours

Static rock pressure None psig (surface measurement) after None hours shut in

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

Perforations: 4883, 4885, 4889, 4891, 4893, 4975, 4977, 4979, 4981, 4983, 5076, 5078, 5080, 5082, 5084, 5086, 5096, 5098, 5100, 5102, 5132, 5134, 5172, 5174, 5176, 5178, 5180, 5277, 5279, 5281, 5353, 5355, 5357, 5363, 5365, 5441, 5442, 5443.
Foam frac 783,000 SCF of N₂, 55,000 LBS. 20/50 sand, 9240 GAL. H₂O, 2100 LBS. KCL, 65 GAL. pen-5, 42 LBS. ferchek, average treatment pressure 2975 LBS. instant shut in 1500 LBS.

4883-4893 }
4975-4983 }
5076-5086 }
5096-5102 }
5132-5134 }
5172-5180 }
5277-5281 }
5353-5365 }
5441-5443 } Rhinestreet

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
clay	brown	soft	0	10	
sand and gravel	brown	soft	10	30	
sandstone	gray	hard	30	65	
sand	white	soft	65	70	fresh water
shale	gray	soft	70	140	
shale	red	soft	140	240	
shale	gray	soft	240	390	
sandstone	brown	hard	390	420	
shale	gray	soft	420	575	
sandstone	gray	hard	575	610	
shale	red	soft	610	720	
sandstone	brown	hard	720	760	
shale	gray	soft	760	894	
blackslate	soft		894	902	
shale	gray	soft	902	1010	
sandstone	brown	hard	1010	1124	
shale	gray	soft	1124	1160	
sandstone	gray	hard	1160	1186	
shale	gray	soft	1186	1210	
sandstone	white	hard	1210	1300	
lime	brown	hard	1300	1392	
sandstone	gray	hard	1392	1666	
shale	gray	soft	1666	2030	
sand and shale	gray	soft	2030	2445	5495
shale	gray	soft	2445	3250	~1850 Berea
sand and shale	gray	soft	3250	3468	3645
sand and shale	brown	soft	3468	3710	
shale	brown	soft	3710	3880	
sand and shale	brown	soft	3880	3970	
shale	brown	soft	3970	4320	
sand and shale	brown	soft	4320	4360	
shale	brown	soft	4360	5020	
sand and shale	brown	soft	5020	5410	4883 5441
shale	black	soft	5410	5495 TD	1850 1880 3633 3891 Rhinestreet

5483
ONONDAGA

5495
701
-4794-subsea T.D.

(Attach separate sheets as necessary)

Klondike Development Corporation

Well Operator

By: Frank E. Pfeiffer
Date: March 1, 1982

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 all encountered in the drilling of a well."

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) _____

Address _____

GEOLOGICAL TARGET FORMATION Middle Devonian (Marcellus)

Estimated depth of completed well 5500 feet. Rotary XXX / Cable tools /
Approximate water strata depths: Fresh, 90 feet; salt, 1500 feet.
Approximate coal seam depths: None
Is coal being mined in this area: Yes / No XXX /

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS Cubic ft.	PACKERS
	Size	Grade	Weight per ft	New	Used	For Drilling	Left in Well		
Conductor	16"	H40	38lbs		XX	20"			Kinds
Fresh water									
Coal									Sizes
Intermed.	18 5/8	H40	23lbs	XX			801	To surf.	
Production	4 1/2"	J55	10 1/2 lbs	XX			5500	600 sacks	Depths set
Tubing	2"	ERW	4.7lbs	XX			5500		
Liners									Perforations: Top Bottom

NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, 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 §22-4-2, (iii) Form IV-9, "Reclamation Plan" applicable to the reclamation required by Code §22-4-15b and Regulation 23, (iv) unless previously paid on the same well, the fee provided by Code §22-4-12a, and (v) if applicable, the consent required by Code §22-4-2 from the owner of any water well or drilling within 200 feet of the proposed well.

A separate Form IV-2 shall not be required for fracturing or stimulating a well when fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.

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 8-31-82

J. J. Arzberger
Deputy Director, Oil & Gas Division

Drilling under must be completed by the coal operator and by any coal owner or lessee who has recorded a declaration under Code §22-4-20, if the permit is issued within fifteen (15) days of receipt thereof:

W A I V E R

The undersigned coal operator / owner / lessee / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided the well operator has complied with all applicable requirements of the West Virginia Code and the governing regularions.

Date: , 19 .

By: _____

Its: _____