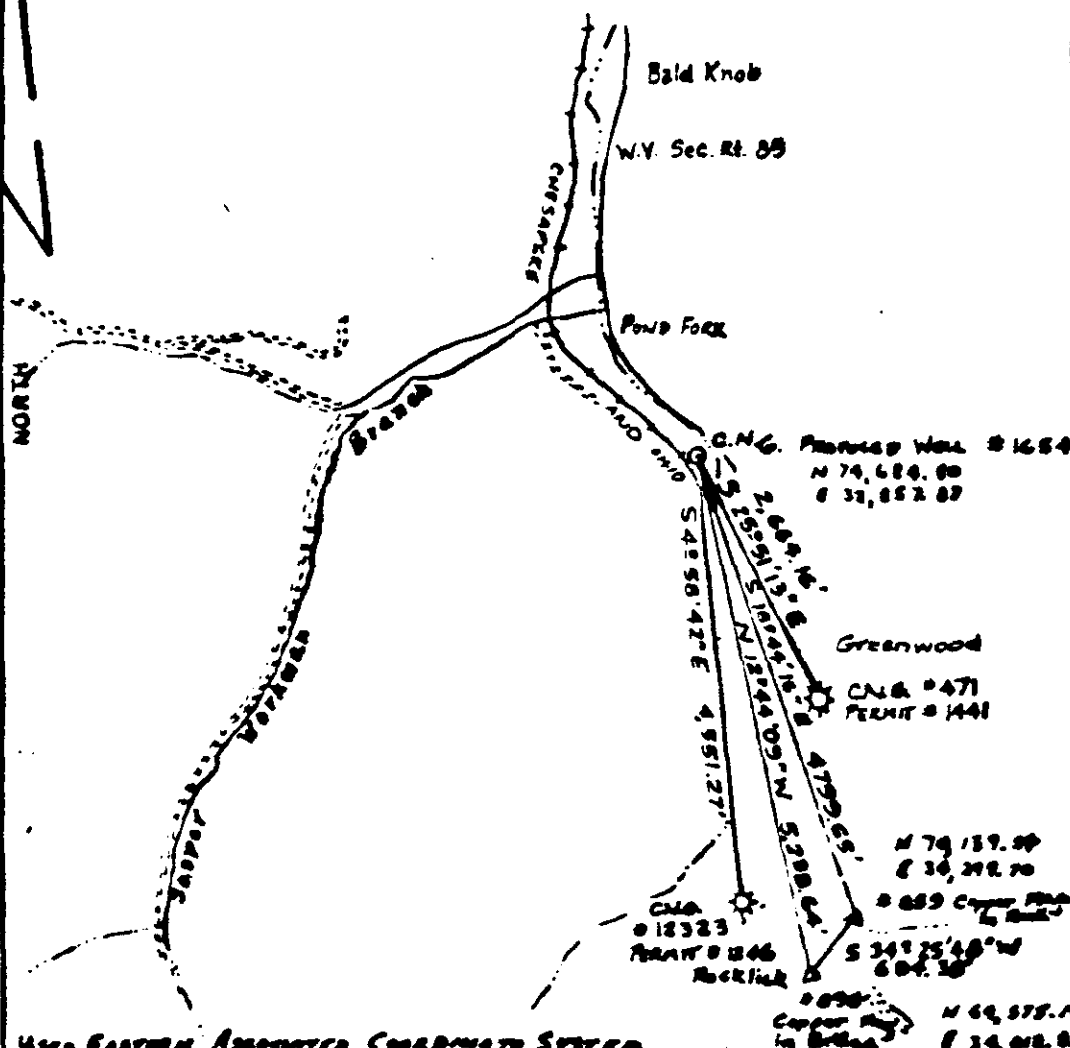


LONGITUDE 81° 17' 30"



RECEIVED
DEPARTMENT OF ENERGY
OIL AND GAS

JAN 31 1986

Used Eastern Associated Coordinate System

FILE NO. P.R. 01
DRAWING NO. 85007
SCALE 1" = 2000'
MINIMUM DEGREE OF ACCURACY 1/2500
PROVEN SOURCE OF ELEVATION U.S.G.S. ON Copper Flag in Bridge Mouth Bar Line G. 1166

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) Thomas P. Hale
R.P.E. 3690 L.L.S.

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
IV-6
9-9)

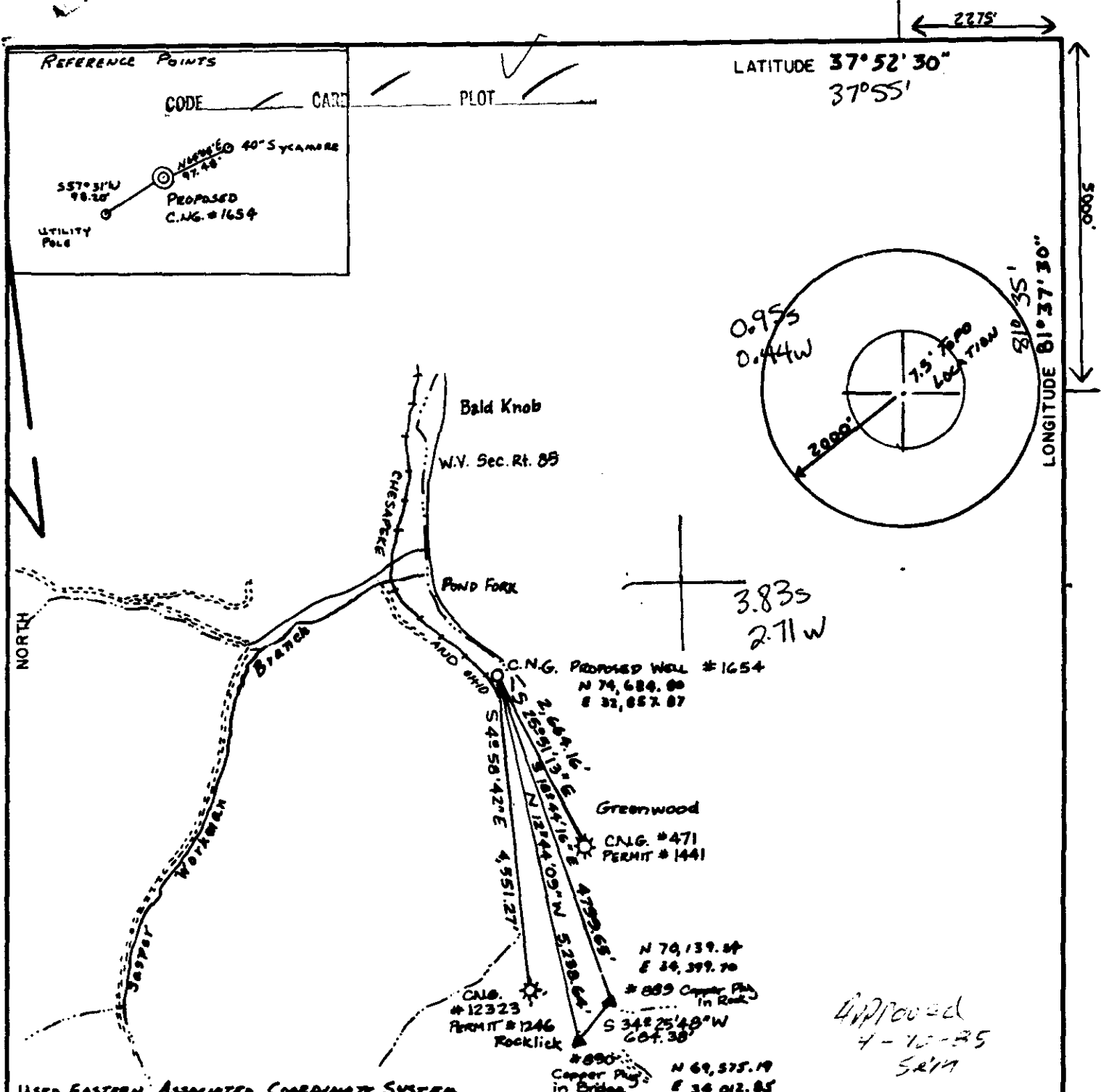


DATE FEBRUARY 6, 1986
OPERATOR'S WELL NO. CNG #1654
API WELL NO. 47-005-1456-P
STATE COUNTY PERMIT

Department of Mines
Oil & Gas Division

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS", PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW X)
LOCATION: ELEVATION 1116.9' WATER SHED POND FORK
DISTRICT CROOK COUNTY BOONE
QUADRANGLE LORADO 75'
SURFACE OWNER SOUTHERN LAND COMPANY & DIXIE POWER CO. FOR 188.25
OIL & GAS ROYALTY OWNER CHARLESTON NATIONAL BANK LEASE ACREAGE 23,642.70
LEASE NO. 00219
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 WEIR ESTIMATED DEPTH 3300 FEB 18 1986
WELL OPERATOR CNG DEVELOPMENT CO. DESIGNATED AGENT BART A. NICHOLS 8 1986
ADDRESS ONE PARK ARCADE CENTER ADDRESS CROSSWIND CORPORATE PARK
ATTEBOROUGH, PA 15224 RT. 8 BOX 690, BRIDGEPORT, WVA 26330
412/489-2570 PHONE 204/633-0134





USED EASTERN ASSOCIATED COORDINATE SYSTEM

FILE NO. F.B.#1
 DRAWING NO. 85007
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY 1/2500
 PROVEN SOURCE OF ELEVATION U.S.S. BM Copper Plug in Bridge - Mouth Rock Lick EL. 1166

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) Thomas P. Vela
 R. P. E. 3698 L. L. S. _____

PLACE SEAL HERE

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



Department of Mines
 Oil & Gas Division

DATE FEBRUARY 6, 1985
 OPERATOR'S WELL NO. CNG #1654
 API WELL NO. 47-005-1456
 STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS", PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW X)
 LOCATION: ELEVATION 1116.4' WATER SHED POND FORK
 DISTRICT CROOK 1 COUNTY BOONE
 QUADRANGLE LORADO 7.5' 445 Bald Knob 006 C5
 SURFACE OWNER CHARLESTON NATIONAL BANK ACREAGE 23,649.70
 OIL & GAS ROYALTY OWNER CHARLESTON NATIONAL BANK LEASE ACREAGE 23,649.70
 LEASE NO. 80E10
 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 ___
 T FORMATION WEIR ESTIMATED DEPTH 3178' MAY 28 1985
 OPERATOR CNG DEVELOPMENT CO. DESIGNATED AGENT GARY A. NICHOLAS
 SS ONE PARK RIDGE CENTER ADDRESS CROSSWIND CORPORATE PARK
PITTSBURGH, PA 15224 RTE. 2 BOX 690 BRIDGEPORT, WVA. 26330
412/429-2390 142 PHONE 304/623-8134

BLUEPRINT Co. 6-6 Mann-Oceana (266) Charleston, WV





IV-35
(Rev 8-81)

Date July 26, 1985
Operator's
Well No. CNGD WN 1654
Farm Charleston Nat. Bank
API No. 47 - 005 - 1456

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 / Gas x / Liquid Injection / Waste Disposal /
(If "Gas," Production x / Underground Storage / Deep / Shallow x /)

LOCATION: Elevation: 1116 Watershed Pond Fork
District: Crook County Boone Quadrangle Lorado

COMPANY CNG Development Company

ADDRESS P. O. Box 15746
Pittsburgh, PA 15244

DESIGNATED AGENT Gary A. Nicholas

ADDRESS Rt. 2 Box 698
Bridgetown, WV 26330

SURFACE OWNER Southern Land Co. and
Dickinson Properties, Inc.

ADDRESS Kanawha Valley Bldg.
Charleston, WV 25234

MINERAL RIGHTS OWNER Charleston Nat'l Bank

ADDRESS P. O. Box 1113 - Trust Dept.
Charleston, WV 25234

OIL AND GAS INSPECTOR FOR THIS WORK

Jerry Halcolm ADDRESS Rt. 1 Box 28
Hamlin, WV 25523

PERMIT ISSUED May 21, 1985

DRILLING COMMENCED 6/21/85

DRILLING COMPLETED 6/29/85

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 Cord.	33	33	To Surf.
13-10"	250	250	To Surf.
9 5/8			
8 5/8	1616	1616	To Surf
7			
5 1/2			
4 1/2	2457	2457	218 sks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Weir Depth 3200 feet

Depth of completed well 3174 feet Rotary x / Cable Tools

Water strata depth: Fresh 251 feet; Salt feet

Coal seam depths: 1259 - 1261 Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Big Lime Pay zone depth 2326 - 2332
Maxton 2154 - 62 feet

Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d

Final open flow 38.4 Mcf/d Final open flow Bbl/d

Time of open flow between initial and final tests hours

Static rock pressure 330 psig (surface measurement) after 14 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

(Continue on reverse side)

SEP 23 1985

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

Gearhart ran CBL, 16' Gun Hollow Carrier - 6 shots (2326-30), 4 shots (2332-34) on third run - Dowell hook up - Pump 500 gal 15% HCL, 2000 gal 15% gel acid, drop 6 balls, Pump 500 gal 15% HCL, 2000 gal 15% Gel Acid, Flush with 50 BBL soap & 10 BBL water ISIP 2800, 15 min S.I. 2750, Avg. Tr. Pres. 2900# @ 3 BPM - Materials & Chemicals as follows; 15% HCL - 1000 g., F-78 2 g., J-425 110 g., 15% gel 4000 g., U-42 2 g., J-144 6 balls, A-250 4 g., F-78 5 g., Nit. 180,000 SCF; Opened well @ 5:15 thru 2" 7/16/85 - Swabbed - brought back 1 BBL Fluid - guage 8/10 thru 1" water = 29.33 Mcf. 7/19/85 - Gearhart on loc. 8:30 - Rig up - Set plug @ 2200' - Dowell drop 500 gal 15% HCL, Set up shots - 12 shots (hollow carrier) in 8' - 1st run gun did not go off 2nd run - perf holes 2154 - 62; Dowell hook up @ 10:00 a.m. - tried to break with HCL and Foam @ 3500# - would not break - eased into frac @ 3000# psi; Formation started taking foam & acid - Start 20/40 Sand - increments of 1#, 2#, 4#, 6# & 8# @ 5.3 BPM, 44,000# Sand before running our Nit. - held back nit. for flush. Final Tr. Pres. 3050#, ATP 3200, ISIP 2950, 15 min 2700. **WELL LOG** (materials - 44,000# 20/40 Sand, M-76 3g, 500 gal 15% HCL, U-42 10g., L-53 10 g., F-78 2 g., F-81 50 g., Nit. 685,000 SCF

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Sub Base			0	10	1/2" stream water @ 251'
Surface Sand			10	28	
Sand, Shale			28	1259	
Coal			1259	1261	
Sand, Shale & RR			1261	2187	
Lime			2187	2258	
Lime & Shale			2258	2268	
Lime			2268	2676	
Sand & Shale			2676	2852	
Weir			2852	2859	
Sand & Shale			2859	3174	Berea @ TD.
LOG TOPS ✓					
Avis Lime			1643	1684	
U. Maxton			1738	1768	
Maxton			1855	1963	
L. Maxton			2083	2164	
L. Lime			2182	2253	
Big Lime			2267	2586	
Weir			2862	2883	
Berea			3071	3078	

(Attach separate sheets as necessary)

CNG DEVELOPMENT COMPANY

Well Operator

By:

Gary A. Thibault

Date:

July 26, 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."

FILE COPY
MAY - 2 1985



1) Date: April 25, 19 85
2) Operator's Well No. 1654
3) API Well No. 47 -005-1456
State County Permit

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

- 4) WELL TYPE: A Oil _____ / Gas X /
B (If "Gas", Production X / Underground storage _____ / Deep _____ / Shallow X /)
- 5) LOCATION: Elevation: 1116 Watershed: Pond Fork
District: Crook County: Boone Quadrangle: Lorado
- 6) WELL OPERATOR CNG Development Company
Address c/o Paul W. Garrett, P.O. Box 15746
Pittsburgh, PA 15244 *10110*
- 7) DESIGNATED AGENT Gary Nicholas
Address Crosswind Corporate Park
Rt. 2, Box 698, Bridgeport, WV 26330
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED
Name Jerry Holcolm
Address Rural Rt. #1, Box 28
Hamlin, WV 25523
- 9) DRILLING CONTRACTOR:
Name Sam Jack Drilling Company
Address P.O. Box 48
Buckhannon, WV 26201
- 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, WEIR
- 12) Estimated depth of completed well, 3178 feet
- 13) Approximate trata depths: Fresh, 35 feet; salt, _____ feet.
- 14) Approximate coal seam depths: 5, 356 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	16					40	40	To Surface	By Rule 15.05
Coal									Sizes
Intermediate	8-5/8	X-42	23	X		1600	1600	To Surface	By Rule 15.05
Production	4-1/2	J-55	10.5	X		3178	3178	200-400	Depths set
Tubing	1-1/2	J-55	2.75	X					By Rule 15.01
Liners		CN-55							Perforations:
									Top Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-005-1456 Date May 21 1985

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 May 21, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
<u>28</u>	<u>MN</u>	<u>MN</u>	<u>MN</u>	<u>8169</u>

Margaret J. Hassel
Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.

File

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



